Spirituality in cancer care: A survey on current practice, preparedness and prior education of oncology professionals

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Table of Contents

Preface

As a practicing oncologist, I have the opportunity to interact with patients who face life threatening diagnosis of cancer, at a more personal level than other specialties. Often our clinic visits are intense, emotional and draining both to the patients and the clinicians. During one of my routine outpatient clinics in late 2013, I met for the first time a 62-year old woman with her husband. She was referred to my clinic for a discussion about the role of chemotherapy for her condition. In 2012, she was diagnosed with early stage uterine cancer. She underwent the standard surgical removal of her uterus and ovaries. Post-surgery, she was recommended to have pelvic radiotherapy and chemotherapy with the intent of cure by eradicating any microscopic residual cancer cells. However, she chose not to pursue any of these post-surgical options. Unfortunately, twelve months later, she was found to have recurrent cancer in her pelvis and abdomen. It was at that time, she was referred to my clinic for further management.

During the initial consultation, it became apparent that she had been informed that the cancer had become incurable and she had a terminal illness. The referring team had already given her a life expectancy of less than 12 months. Her husband also accompanied her for the initial clinic appointment. He was quite stressed and terrified at the prospect of his partner of many years, facing imminent death. However, the patient herself was calm and composed.

On querying directly the reasons for not receiving chemotherapy or radiotherapy, she indicated that the treating health professionals never understood or supported her preferences. She raised an important issue that the health professionals, especially

the medical team, were not keen on exploring her beliefs and needs during the times of facing this challenging situation in her life. I came to realise that she had pursued alternative treatment in the form of spiritual practices during the time between surgery and the recurrence of cancer. She found hope, peace and comfort through spiritual practice even after the diagnosis of recurrent cancer. While there is no published evidence to indicate that spiritual practices cure cancers, it appeared that in this case, the patient's preferences for spiritual care and well-being were not addressed by the treating team.

Following this whole consultation, I reflected on how as a medical practitioner I would have treated this person, if I had seen her soon after her surgery. In my clinical practice, I do not screen patients routinely for any spiritual distress. After this consultation, I started exploring the need for spiritual assessment and spiritual care provided during routine clinical practice within the field of oncology. Discussions with a few of my colleagues indicated that none of them routinely performed any form of spiritual assessment. An occasional referral to the hospital chaplain for patients who were facing imminent death was done by the hospital nursing staff; however, not by the medical staff. Self-reflection also identified that medical professionals (myself included), may not have had any training in spiritual assessment and spiritual care either during medical school or subsequent specialist training. At the same time, my personal health issues made me explore my own spirituality.

All the above points led me towards exploring the current practice and the preparedness of Australian oncologists and trainees to address the spiritual care needs of their patients.

List of Tables & Figures

Tables

Figures

Acknowledgements

One of the main reasons I started pursuing a Master's degree in Clinical Education was to be able to learn some helpful tips on dealing with issues related to adult education as part of my career in Medical Oncology. However, completing the degree with a research focus has opened my eyes on other implicit learning points which otherwise I may have missed out if I had continued coursework only. Exploration of my own spirituality and perceived lack of knowledge in spiritual care and health provided me an opportunity to evaluate the current practice and training of my peers in the field as the research focus for my Clinical Education thesis. The whole inter-professional learning experience of conducting this research and completing the dissertation has been a wonderful journey thanks to a number of people to whom I'm greatly indebted to.

Firstly, I would like to acknowledge my primary supervisor, Assoc. Prof Linda Sweet for her inputs in each and every step of the whole research journey and for providing continuous encouragement. I often wished that I learnt from her the various skills and qualities that she possesses, such as her skills with editing and formatting electronic documents, her organisational skills, her enthusiasm in reading through the number of revisions, and particularly, her kindness and patience in enduring with my sporadic absences over a prolonged period of time.

I am extremely grateful to my co-supervisor, Assoc. Prof Ann Harrington, for her expertise and knowledge in the field of spirituality. She has been a wonderful mentor to me, with succinct advice on issues identified during the research work, providing

constant feedback during the proposal development, research conduct as well as analysis, and with great attention to detail during various phases of the thesis writing.

I would like acknowledge the contributions by Dr Shahid Ullah, who is a senior lecturer in Biostatistics at Flinders University. He provided me with excellent statistical advice whenever I approached him, with his gentle demeanour and infectious smile he assisted with the complicated analysis and interpretation of the results.

The other group of people I would like to express my gratitude are the managers and project officers in the secretarial office of the three participating organisations (Medical Oncology Group of Australia, Clinical Oncology Society of Australia and the Royal Australian and New Zealand College of Radiologists) who were of profound assistance in delivering the survey to the potential participants. I would also like to thank the participants in the research study whose involvement made the thesis possible.

I’m grateful to Prof. Wilf McSherry of Staffordshire University, for giving his permission to use the survey questionnaire developed by his team for this study.

Lastly, I would like to acknowledge and dedicate this thesis to the patients and families who have had issues related to cancer and its treatment. They have been my constant source of inspiration and motivation for undertaking this research study.

Summary

The main research objectives of this study were to explore the current practice, preparedness and prior education of Australian oncologists and oncology trainees on the provision of spiritual care for their patients with cancer. Data was collected through an anonymous online survey using a validated questionnaire tool. Among the 128 survey respondents, 107 were suitable for data analysis. There were 69 medical professionals with an estimated response rate of 10% for the medical oncologist population in Australia. Although the survey was directed towards medical professionals, 38 non-medical professionals also responded to the survey, due the mixed membership of one of the organisations through which invitation emails were delivered.

The results of the survey indicated that the majority of the respondents had encountered patients with spiritual care needs in their clinical practice. Such spiritual needs were often discovered through the patient themselves during clinic consultations. The respondents identified that a team approach would be preferable for the delivery of spiritual care with clergy or chaplains along with other professionals. A conflicting pattern emerged regarding the role of medical professionals in spiritual care. Although 70% of the survey respondents identified that medical professionals should be responsible for the provision of spiritual care, the responses to qualitative questions demonstrated that a similar number of respondents believed that it should not be the role of medical professionals.

In their current clinical practice, only 45% of medical professionals perceived that they were partly or completely able to meet the spiritual needs of their patients. None

of the demographic factors in an exploratory analysis, correlated with the self-perceived ability of the respondents to meet spiritual needs. Several barriers 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.

Regarding prior training on spirituality and spiritual care, only 25% of the medical professionals felt that they had received some form of education with a meagre 7% of them stating that their education was adequate. Those respondents, who acknowledged they had prior training on spiritual care, highlighted that they learnt this on the job or because of their self-interest.

In summary, the results from this survey highlight that oncology trainees and practicing oncologists recognise that they often encounter patients with spiritual care needs. Although nearly half of the medical professionals perceived that they were able to meet the spiritual care needs of their patients, there were several barriers identified such as lack of time, lack of training and poor understanding over the role played by medical professionals exist in the provision of spiritual care to their patients.

Recommendations:

1. Incorporation of educational components on various aspects of spirituality and spiritual care in the context of health within the curriculum during the training period (both under-graduate and post-graduate education) for oncology professionals. Access to existing and new resources on spiritual care for continuing professional education for the practising oncologists can facilitate learning of skills required to deal with spiritual issues. The multidisciplinary focus of cancer care may also facilitate interprofessional

educational opportunities to learn with, from and about each other within the team.

2. Spreading awareness and adoption of the guidelines developed by Cancer Australia (2014) on ‘responding to suffering in adults with cancer’ that focusses on spiritual issues by oncology professionals. A change in current clinical practice would be warranted so as to incorporate a formal spiritual screening assessment tool during patient interactions. As there are several short validated tools already available, assessment may not take-up too much of clinicians’ time.
3. In the context of multi-disciplinary cancer care, and as any of the team members could screen for, identify and refer to the appropriate professional, development of clinical pathway for optimal referral and delivery of spiritual care and support for patients with cancer within the local health network systems is required.

Declaration of authorship

I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signature.....Date.....

Chapter I: Context of the Research

This thesis is focused on the current practice, preparedness and prior education of oncology health professionals for the provision of spiritual care provided to patients with cancer. This chapter will have two broad sections. The first section will discuss various aspects of spirituality in the context of health and the second section will provide an overview of the contents of the whole thesis.

1. Spirituality and health

Under this section, the following aspects of spirituality in health are discussed - **historical perspectives** on the relationship between spirituality and health, **definitions** of spirituality, the provision of **spiritual care** in the context of contemporary healthcare, and spiritual care for patients with **cancer**.

1.1 Historical perspectives

Spirituality and medicine have a strong relationship from prehistoric times. Original healers were "shamans" known to be '*traditional healers in cultures that believe communication with the gods and spirits influences health and well-being'* (Green, 2006 p259) and "apothecaries" (traditional pharmacists) as recorded in ancient Egyptian culture. Various civilizations like Chinese, Greek, Indian, Islamic, Roman and other tribal cultures had human and animal illnesses treated by spiritual practitioners and traditional healers. Later, physicians and alchemists were added to the group of those treating illnesses during the period of 5th to 18th century (Trueman, 2006). The rise of modern medicine in 19th century and the development of the

biomedical model resulted in significant improvements in health outcomes through conventional western medicine (Engel, 1977). Through application of the biomedical model, health professionals were treating patients with only surgery and medicine while ignoring the psycho-social domains of health. Such a reductionist model paid little attention to the importance of beliefs and faith in healing, in the physician and in physician-patient relationship (World Health Organisation (WHO) 1998) .

In the last three decades, the value of spiritual elements like faith, hope and compassion in health care have been recognised both by patients and healthcare providers. This has led to various organizations around the world to incorporate spiritual elements in health care '*in an attempt to move towards a more holistic view of health that includes a non-material dimension emphasising the connectedness of mind and body'* (WHO 1998 p9). Since then, the number of research publications in the field of spirituality and health has increased exponentially implying improved awareness and recognition of unmet needs of patients (Koenig, 2012). However, defining spirituality has remained controversial and problematic.

1.2 Defining Spirituality

There is no uniformly accepted definition of 'spirituality', especially in the context of healthcare. Often, 'religion' or 'religiosity' is used in the place of 'spirituality' (Harrington, 2006). Both spirituality and religion are conceptually similar, however they have important differences. While it is considered broader than religion, spirituality in simple terms is 'what gives meaning to the individual' (Burkhardt, 1989; Bussing et al., 2005), whereas, religion involves shared beliefs with others in a community. Mackinlay and Trevitt (2007) define spirituality as *that which lies at the core of each person's being, an essential dimension which brings meaning to life*.

Over the last two decades, increasingly, authors have identified that spirituality has a universal broad-based definition that encompasses religious (with the incorporated set of beliefs, text and rituals shared by a community) and non-religious practices (Anandarajah & Hight, 2001; Burkhart & Hogan, 2008; Draper & McSherry, 2002; Groer et al., 1996; Harrington, 2006; Kellehear, 2000; King & Koenig, 2009; Koenig, 2012; Mousavi & Akdari, 2010; Peteet & Balboni, 2013; Puchalski, 2012; Tanyi, 2002).

In general, most authors agree that spirituality should be considered as a multidimensional human experience. Anandarajah and Hight (2001) describe three domains of spirituality; having cognitive/philosophic, experiential/emotional and behavioural aspects. Anandarajah and Hight (2001) synthesize all three aspects from published literature in the following:

> *"the **cognitive** aspects include the search for meaning, purpose and truth in life and the beliefs and values by which an individual lives; the **experiential** and emotional aspects involve feelings of hope, love, connection, inner peace, comfort and support that are reflected in the quality of an individual's inner resources, the ability to give and receive spiritual love, and the types of relationships and connections that exist with self, the community, the environment and nature, and the transcendent, while the **behavioural** aspects of spirituality involve the way a person externally manifests individual spiritual beliefs and inner spiritual state".*

However, King and Koenig (2009) expanded the definition of spirituality to have four components; belief, practice, awareness and experience. They highlighted that spirituality can be fluid and complex and any of these components can stand alone.

Due to the lack of uniform definition, in February 2009, a multi-disciplinary group (including physicians, nurses, psychologists, social workers, spiritual healthcare providers and administrators) of leaders in the field of spirituality developed a

consensus definition in the context of clinical healthcare setting based on published literature (Puchalski et al., 2009). The resulting definition was:

> *Spirituality is 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.* (Puchalski et al., 2009 p890)

This definition is inclusive of philosophical, religious, spiritual and existential issues commonly seen in clinical practice. For the purposes of this research, this multi-dimensional underpinning of spirituality that captures meaning in/of life as the prime focus will be used.

1.3 Spiritual care in the context of healthcare and clinical practice

The relationship between spirituality and health/disease has been recognised for many years. Sidney Jourard, a Canadian psychologist, initially proposed that illness arises from loss of self (Jourard, 1971). Subsequent literature confirms that illnesses, suffering and death invoke the sense of self and spiritual quests in the patients and their families as a way to cope (Albinsson & Strang, 2002; Bolmsjo, 2001; Landmark et al., 2001; Sulmasy, 1999; Tan et al., 2011; Udo, 2014). When people are faced with life threatening conditions such as cancer or serious trauma resulting in physical and emotional suffering, they are often forced to reflect on their lives and question life's meaning and purpose. These are important components of spirituality. Exploring their own spirituality may give meaning to the suffering, enable them to experience psychological growth, and help find hope in time of despair (Koenig et al., 2001; Puchalski, 2010, p3). Receiving optimal support for the times of spiritual needs can be considered as spiritual care. Health professionals commonly encounter patients with such needs. Due to the potential for improved health outcomes, it is

highly relevant that healthcare providers be involved in the provision of spiritual care (Harrington, 2010).

The core of current healthcare systems depend on the **biomedical model,** developed in the nineteenth century based on the anatomical and biological sciences (Wade & Halligan, 2004). The **biopsychosocial model** proposed by George Engel in 1977 expanded on the original model with the addition of the individual's interpersonal and societal relationships to the scientific understanding of the disease thereby improving clinical practice (Engel, 1977). This model has now been adopted by several healthcare providers. Growing recognition that spiritual needs of patients could play a major role in their acceptance of medical care, their decision-making process, and response and outcome of their treatment, led to the proposal that a spiritual component be added to the model. The recently proposed **biopsychosocio-spiritual model** is slowly being incorporated in patient-centred care service being delivered around the world (WHO 2012; 2007). However, the actual specifics of provision of spiritual care are still being debated.

Optimal provision of spiritual care within the current healthcare environment requires a thorough understanding of spirituality and context of practice. The need to treat patients as a whole through the provision of patient-centred holistic care is a long felt need; however, not uniformly adopted or appropriately addressed by modern medicine (Lo et al., 2002; Sulmasy, 2002). The importance of spiritual care extends through the whole trajectory from health promotion/prevention, to living with disease, and to terminal stages of life (Cohen et al., 2012).

Acute and chronic illnesses often result in physical, psychosocial and spiritual suffering and activate a spiritual quest (Harrington, 2006). The psychological

suffering caused by physical illness has been well known over many past centuries. Shakespeare aptly puts it in King Lear *we are not ourselves when nature, being oppressed, commands the mind to suffer with the body* (Shakespeare, 1608, ACT II, Scene III). However, the spiritual suffering in relation to illness have been only recently recognised to be associated with various physical diseases like HIV/AIDS, cancers, acute and chronic life threatening/limiting medical conditions and psychiatric disabilities. It is important for the healthcare providers to be informed regarding their patient's beliefs and practices, especially during the initial contact with the healthcare facility. Further, whenever the disease status changes during the patient's life time, changes pertaining to their beliefs and practices need to be acknowledged and supported by the healthcare providers. Partaking in religious practices, and possessing strong spiritual health seem to be closely related to longer survival, lower incidence of cardiovascular diseases, hypertension, healthy lifestyle and nutrition, lower psychological issues like depression and anxiety and better coping mechanisms for illness as well as improved health related quality of life (Bonelli et al., 2012; D'Souza, 2007; Mueller et al., 2001). Despite these benefits, there are several negative associations between religious practices (or spiritual beliefs) like avoidance of traditional ways of treating illness, refusing immunization and potential for physical abuse (Mueller et al., 2001). Among the diseases that affect humans, a diagnosis of cancer, the emperor of all maladies, is often associated with significant physical, psychosocial and spiritual difficulties. The relationship between spirituality and cancer related outcomes has been extensively studied.

1.4 Spiritual care and Cancer

Cancer is the leading cause of death among developed countries and is rapidly becoming common in many developing countries (GLOBOCAN, 2012). Major strides have been made in the last few decades with significant improvements in cancer related survival outcomes due to technical advances in understanding the biology of cancer, and from multi-disciplinary care. Complex treatment strategies with mutilating surgeries, chemotherapy and radiotherapy cause significant short- and long-term physical effects on the cancer survivor for the rest of their life. Moreover, individuals affected by cancer, even if diagnosed and treated at its early stage, live with a constant fear and anxiety over cancer recurrence and death. Thus, diagnosis and treatment of cancer affects not just physically, but also other domains of health such as psychological, social, spiritual and financial domains. These aspects have significant impact over the well-being of patients, their carers and families. Such complex needs that warrant provision of optimal care have been defined as "**supportive care**" (Metropolitan Health and Aged Care Services Division, 2009). Nowadays, provision of optimal supportive care is considered to be a core component of cancer care.

In the last two decades, various researchers and governments in different countries, including Australia, recognised these supportive care needs of cancer patients and their families resulting in multiple reforms. In 2003, a consultative report was prepared by the Clinical Oncological Society of Australia (COSA), the Cancer Council Australia (CCA) and the National Cancer Control Initiative (NCCI) on "Optimising cancer care in Australia" (COSA 2003). This document identified the provision of supportive care to those affected by cancer as a priority area that needed

improvement. State governments within Australia have endorsed supportive care as a key area resulting in release of policies and implementation plans.

Supportive care refers to the services required by the patients with cancer, their carers and friends, in relation to five inter-related domains of care: physical, social, psychological, spiritual and information domains (Metropolitan Health and Aged Care Services Division, 2009, p5).

- The physical domain includes a wide range of physical symptoms that may be acute, relatively short-lived or ongoing, requiring continuing interventions or rehabilitation (COSA 2003).
- The social domain includes a range of social and practical issues that will impact on the individual and family such as the need for emotional support, maintaining social networks, and financial concerns (National Institute for Clinical Excellence, 2004).
- The psychological domain includes a range of issues related to the person's mental health wellbeing and personal relationships (COSA 2003)
- The spiritual domain focuses on the person's changing sense of self and challenges to their underlying beliefs and existential concerns (National Institute for Clinical Excellence, 2004).
- The information domain transects the above domains with people needing to access information about their disease and treatment, support services and the health system overall (COSA 2003).

Thus, the importance of spiritual care needs is well recognised in the field of cancer care that a specific domain has been allotted within supportive care.

Spiritual care needs are pronounced in cancer patients due to the perceived fear of facing a life-threatening illness (Sulmasy, 1999; Surbone & Baider, 2010). Advanced cancer is a chronic disease with various phases identified during a patient's journey; which include diagnosis, active treatment, post-treatment care, palliative care and terminal phase. Cancer patients and their families have many needs that may help them to cope with the diagnosis and its treatment, continuing illness or death into bereavement. A systematic review identified that cancer patients report frequently multiple unmet needs involving activities of daily living, psychosocial, information and physical needs that were not properly addressed by the healthcare providers (Harrison et al., 2009). Only recently, emotional distress (related to a spectrum of psychological, social and spiritual issues) is identified as the sixth vital sign that needs to be specifically screened among cancer patients (Howell & Olsen, 2011; Mackenzie et al., 2013). A high level of untreated psychosocial and/or spiritual distress is associated with poor cancer related quality of life (Puchalski, 2012).

One important component of emotional distress is the spiritual distress. Some examples of diagnosis of spiritual distress are existential concerns, hopelessness or despair, guilt, abandonment by God, or social isolation (Puchalski, 2012). The provision of spiritual care to alleviate such distress is considered part of optimal psychosocial care by various international and national agencies (National Breast Cancer Centre and National Cancer Control Initiative, 2003). Patients nearing the end of their life are often managed by palliative care teams. One of the palliative care standards for providing quality care for all Australians is:

> *"the patients, their caregiver/s and families psychosocial, emotional, cultural and spiritual needs, belief systems and values regarding death and dying are addressed and respected"(Palliative Care Australia, 2005, p36).*

Provision of spiritual care through core members of the interdisciplinary team is an essential component of specialist palliative care services in tertiary care hospitals and hospices (Palliative Care Australia, 2005, p27). However, for individuals who have advanced disease such as cancer, spiritual care is not often provided until admission to a hospice. Despite such perceived needs and recommendations, only a minority of cancer patients actually receive spiritual care, even during the end of life phase of their illness (Harrison et al., 2009).

Unmet spiritual needs of advanced cancer patients by the healthcare providers have been identified by various authors (Balboni et al., 2007; Harrison et al., 2009; Pearce et al., 2012). Such unmet spiritual needs affect patients' quality of care, associated with poorer outcomes and affects the care giver-patient relationships. Appropriate spiritual care could potentially improve outcomes, including patient satisfaction and quality of life (Balboni et al., 2007; Vallurupalli et al., 2012; Wasner et al., 2005).

A recent survey of oncology healthcare providers (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 (Saguil & Phelps, 2012).

In summary, spiritual care is a significant area of unmet need for patients facing life threatening illnesses like cancer. Optimal provision of such care results in improved patient satisfaction and quality of life.

1.5 Summary

Services addressing various domains of supportive care are well defined within many cancer centres/hospitals in Australia. Based on my current clinical experience as an

oncologist working in a tertiary cancer centre in South Australia, it appears that optimal screening and referral pathways exist for some of the domains, but not for others. For example, the physical and psycho-social issues of those affected with cancers are routinely screened and appropriate referrals are made to rehabilitation units, psychologists or other allied health professionals. However, the spiritual domain is poorly addressed in routine clinical practice. Most oncology medical professionals within my current work environment do not use any spiritual assessment tool and rarely initiate referrals to the chaplains, who are often considered to be the spiritual care practitioners. Such referrals occur occasionally by the nursing staff for patients who are terminally ill and hospitalised after a nursing assessment. Anecdotally, the situation is no different in other South Australian or interstate oncology centres. It appears that spiritual concerns of those affected by cancers are poorly addressed by medical professionals working in the field of oncology, within the current framework despite policies and recommendations.

The spiritual needs of patients with various life threatening illnesses like cancers have been recognised as an important component of health care. However, healthcare providers, especially medical health professionals, may not engage in the provision of optimal spiritual care. Previously published studies identified lack of training in this area as a reason for not being able to address the spiritual needs of patients (Balboni et al., 2013; Peteet & Balboni, 2013). Various American medical schools have recognised this deficiency and have incorporated education/training on spiritual care into the medical curriculum (Lucchetti et al., 2012). In other countries including Australia, such training in spiritual care is not necessarily available to medical students. Recent efforts to introduce training in spirituality as an elective have had

some success in selected Australian medical schools (Bennett, 2014; Bridge & Bennett, 2014).

This study aims to explore the current practice and preparedness of medical professionals (both practicing oncologists and oncology trainees) on spiritual care of cancer patients. In addition, it is aimed to explore their past training in this area, as well as their perceptions of where and how education on spiritual care needs should be provided. Findings from the study will be shared with the curriculum committees of advanced training in oncology within the Royal Australasian College of Physicians (RACP) as well as published in the professional literature to raise awareness of the need to improve spiritual care for cancer patients.

2 Overview of thesis

There are six chapters in this research thesis. The introduction is considered in chapter I, the literature review is provided in chapter II where there is a description and a general overview on the role of spiritual care in the field of cancer medicine, followed by perceptions of oncologists on the provision of spiritual care for cancer patients. The published literature on curriculum contents on spirituality within medical schools is also considered.

Chapter III addresses the research methods used in the project. Data from the literature review was used to develop a questionnaire and will be discussed. Data collection from the participants involved predominantly cross-sectional survey questionnaire methods and these will be explained. Finally chapter III will explain the analysis methods and ways in which rigour have been addressed.

Chapter IV reports the descriptive and analytical results from the quantitative and qualitative data collected. Detail presentation of the demographics and findings from the survey will be presented in a series of tables and figures. A description of the content analysis of the qualitative data follows at the end of the chapter.

Chapter V is a discussion on the various interesting points identified from the results section, with reference to prior published literature and the interpretation of the data.

Finally, the concluding chapter describes the major take-home points from the study with recommendations for future research and educational activities in the field of spirituality in cancer care.

Chapter II: Literature review

2.1 Introduction

As discussed in the previous chapter, diagnoses of serious illnesses like cancer trigger an individual's sense of spirituality, especially the component that deals with looking for sense, purpose and meaning in life. The main focus of this chapter is to undertake a broad overview of published literature in the field of spiritual care of patients with cancer from the perspective of healthcare providers, especially treating oncology medical professionals to explore the current state of knowledge of oncology practice and preparation. This chapter also evaluates existing knowledge in the area of training on spiritual care for medical health professionals.

Iterations of literature search were performed using search criteria (spirituality, spiritual care, cancer, oncology, and medical education) in the bibliographic databases such as PubMED, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and Scopus to gather data on the following themes:

1. Oncology professionals' preferences, beliefs and attitudes towards spirituality and spiritual care in clinical practice
2. Education on spirituality for medical professionals
3. Australian affiliated publications

Using the search strategy, various articles were identified addressing different aspects of spirituality in cancer care. Table I provides the figures of a repeat of this search and details the quantities of finds using this search approach.

Table I: Database search performed on 7/4/2015

Search terms	No. of articles		
	PubMed	**CINAHL**	**SCOPUS**
"spirituality" and "cancer"	1125	1129	1182
"spirituality" and "cancer" and "Australia"	41	23	38
"spirituality" and "medical education"	394	90	249
"spirituality" and "medical education" and "Australia"	15	0	8

A limited number of these articles were found to be of relevance for this review with its focus on oncology medical professionals in Australian settings. Due to the small number of relevant articles identified, the search was widened to include the grey literature and Google Scholar to gather materials for this chapter.

In this chapter, models of **spiritual care** and the current practice of how, when and by whom spiritual care in patients with cancer is provided will be described based on the articles located from the literature search. This description is followed by an exploration on the **training/education** of medical professionals treating cancer patients in relation to spiritual care. Lastly, a review of publications on spirituality in health and education on spiritual care from an **Australian context** is also presented.

2.2 Spiritual care

Spiritual care could be defined as provision of support during the times of a spiritual need. As spirituality is a universal feature of human life, according to the biopsychosocio-spiritual model, everyone has a spiritual history that needs assessment whenever an illness strikes, or disease state develops in a person (Sulmasy, 2002). However, there is no consensus on how, when and by whom spiritual care has to be provided.

2.2.1 Models of spiritual care

Walter (1997) argues that there is ongoing debate on the optimal model for the provision of spiritual care. The three models of spiritual care proposed by Walter (1997) address some of these issues:

1. *A religious community provides total care according to patient's beliefs and practices– i.e. chaplain, clergy*
2. *As only some people are religious, and their needs are met by a referral to the appropriate religious practitioner*
3. *All people are spiritual and all staff members are involved in some fashion in spiritual care*

He describes in the first model that spiritual care could be provided only by specialised religious practitioners according to the beliefs and practices of all patients. In the second model, he proposes that not every patient is religious; so, only those patients with religious beliefs and needs should be referred to religious practitioners, according to their denominator or faith. In the final model, he argues that every individual is spiritual in some form or other; so, all staff members of the healthcare team should be able to address some of the spiritual needs of their patients.

Regardless of the approach, an ideal spiritual care model should be inter-disciplinary and inter-relational where *the patient and the clinicians work together in a process of discovery, collaborative dialogue, treatment and ongoing evaluation, and follow-up* (Puchalski et al., 2009 p890).

2.2.2 When should spiritual care be provided?

Being diagnosed with cancer brings a unique experience for patients. Most published studies exploring clinical practice address spirituality during the terminal phase of illness (Puchalski, 2012). Healthcare providers should strive to know about their

patients' beliefs and practices especially during the initial contact to the healthcare facility, and whenever disease status changes during the patient's life time. A diagnosis of cancer changes one's life forever, raises existential questions involving meaning and purpose in life, induces fear, threatens hope and affects the core of one's being (Puchalski, 2012). Thus, spiritual needs could arise at any point throughout the cancer trajectory; from diagnosis to end of life. It would be appropriate to identify and engage in spiritual needs of patients in all phases—from diagnosis, treatment, and survivorship—rather than just at the end of life (Vachon, 2008). However, the specialty of healthcare providers who should be involved in spiritual care and support is still unclear.

2.2.3 Who should provide spiritual care to cancer patients?

The current model of cancer care involves a team of multi-disciplinary members including:

- medical practitioners (surgical, medical and radiation oncologists, palliative care, and rehabilitation physicians, radiologists, pathologists and general practitioners),
- nursing practitioners (oncology and palliative care),
- allied health professionals (chaplains, dietician, occupational therapy, pharmacist, physiotherapy, psychologist, speech pathologist, social work and others), and finally
- carers (family members or friends).

The involvement of each member could vary depending on the stage of cancer and physical/psychosocial needs of the patient. There seems to be no guidance on who

should provide spiritual care for cancer patients. It appears that spiritual care may be provided by any or most of these members interacting with the patient. However, in practice, patient surveys have shown less than 30% receive any type of spiritual care from their healthcare providers in the hospital environment (Balboni et al., 2013). Whilst patients may not receive adequate spiritual care from their healthcare professionals, they do not expect answers to their spiritual problems from their treating team, but rather *wish to feel comfortable enough to raise spiritual issues and not be met with fear, judgmental attitudes, or dismissive comments* (Mousavi & Akdari, 2010 p908).

There have been a number of studies that have explored the patient perspective for who should provide spiritual care. Hermann (2001) found that cancer patients saw the nurses as their main provider of spiritual care after an assessment on spiritual needs during their time in hospice when nearing end of life. However, Tan and colleagues (2005) reported that the whole palliative care team could be involved in the provision of spiritual care. The majority of patients in an American study identified that their physicians should take patient's spiritual needs into their consideration for treatment decisions (Tarakeshwar et al., 2006). A meta-analysis of qualitative studies on the perspective of patients undergoing palliative care identified that they wanted their healthcare providers to demonstrate good human qualities; to be kind, compassionate and gentle in care; and to be respected with dignity and allowing them to make choices with a patient-centered approach (Edwards et al., 2010). They also found that chaplains or other spiritual advisors were not mentioned often as the main spiritual care providers (Edwards et al., 2010). Overall, most patients appear to prefer their own health professionals to discuss, explore and address their spiritual care needs.

Patient preferences for their healthcare providers to be involved in spiritual care has been mirrored by various authors who indicate that doctors and nurses should be actively involved in the spiritual care for their patients (Astrow et al., 2001; Lo et al., 2002). In a survey of more than 300 physicians and nurses, the majority (71% of physicians and 85% of nurses) believed that spiritual care would have a positive impact on the outcome of their patients (Phelps et al., 2012). Other multi-centric surveys of physicians report similar findings with the majority believing spiritual care is important for their patients, however, only a small proportion (9% to 30%) routinely explore their patients' spiritual needs (Chibnall & Brooks, 2001; Monroe et al., 2003).

Healthcare providers' own spirituality may influence their ability to provide optimal medical and spiritual care for their patients. A survey of gynaecological oncologists reported that 45% believed that their decision-making while discussing medical options was influenced by their own spiritual/religious beliefs (Ramondetta et al., 2011). In addition to influencing outcomes for patients by exploring spiritual needs, published literature also indicates that physicians who were in touch with their own spirituality and self-care had lower incidence of compassion fatigue and burn-out (Back et al., 2014; Kearney et al., 2009; Shanafelt & Dyrbye, 2012). Incorporation of formal education on spiritual care may also positively influence the well-being of the healthcare providers as recently reported by Wasner and colleagues (2005). Thus, spirituality could influence the well-being of both the providers and patients.

The other group that is commonly forgotten in spiritual care provision is the family members/friends of patients with cancer who function as carers in the community. Carer stress, including spiritual concerns, has been well recognised now. Spiritual

assessment of the families and friends may need to be considered as well. The details on how to provide optimal spiritual care and support is still being debated.

2.2.4 How to provide spiritual care in oncology clinical setting?

As previously indicated, provision of spiritual care, especially in the oncology clinical setting, requires a strong inter-disciplinary approach with inputs from oncology professionals, chaplains and others with strong support from the local institutional and government agencies (Puchalski et al., 2009; Surbone & Baider, 2010). Although every member is able to connect to the patient at a spiritual level, the physicians and nurses are not necessarily expected to provide spiritual counselling without appropriate training or education. Understanding the limitations of their training would avoid stepping beyond one's scope and boundaries of professional practice (Surbone & Baider, 2010; van Rensburg, 2012). Rather, a referral to a spiritual counsellor or practitioner after an initial spiritual assessment may be considered as standard approach (Surbone, 2010, chapter 40, p419-425). A recent consensus conference on spirituality recommended that chaplains be recognised as the main provider of spiritual care, with doctors and nurses performing spiritual assessment prior to the referral to the chaplains (Puchalski et al., 2009). Australian Palliative Care Standards identifies a spiritual adviser as part of the team when treating patients who need palliative care services (Palliative Care Australia, 2005).

In an editorial published in the Journal of Clinical Oncology, a major international cancer journal, a series of practice suggestions were recommended for providing spiritual care when treating cancer patients (Ferrell, 2007). According to Ferrell (2007), the main role of healthcare professionals is to recognise that their

patient/client has unmet spiritual needs. Spiritual advisers like chaplains or pastoral care professionals from various religious denominations or spiritual organisations may be the right group of people to deliver spiritual care for patients. However, in clinical practice, in the inpatient setting it is often the nurses who identify the spiritual concerns and make a referral to the hospital chaplains. In contrast, the outpatients attending the cancer clinics may not have any screening assessment for their spiritual needs (personal observation).

2.2.4.1 Spiritual assessment

Healthcare professionals involved in the care of patients with potential spiritual needs should become competent in performing a proper spiritual assessment. A variety of tools have been developed and validated to gather knowledge of spiritual needs of patients (Lunder et al., 2011). However, a recent review by Harrington (2014) indicated that the term 'spiritual assessment' has been used in a several ways depending on the discipline reporting it. In the field of medicine, a three-tiered approach described by Puchalski (2010), in the form of spiritual screening, spiritual history-taking, and spiritual assessment, with collected information integrated into a clinical care plan is becoming popular (Puchalski, 2010). van Rensburg and colleagues (2012) stress the importance of learning to differentiate pathological and non-pathological religious involvement during the process of spiritual assessment. The review by Koenig (2007) provides practical tips on differentiating the two types of involvement.

Spiritual screening involves a quick evaluation for spiritual distress or crisis that needs further in-depth assessment through referral to a spiritual practitioner like a chaplain. Some commonly used tools are the "religious struggle screening tool"

developed by Fitchett et al (2009), "distress thermometer" recommended by psycho-oncology experts (Donovan et al., 2014), and a single question 'are you at peace?' screen developed by Steinhauser et al. (2006). Screening should take less than five minutes making it feasible in a busy clinical environment.

Spiritual history-taking, on the other hand, is performed by a clinician (medical or nursing) using a broader set of questions to understand the patient's spiritual needs, community support systems available, and any beliefs and practices that may influence treatment decisions during the initial clinical assessment (Koenig, 2004). Spiritual history-taking can be performed periodically during subsequent contacts in addition to the initial evaluation. There are several instruments such as FICA (Faith/Beliefs, Importance, Community, Address in care or action), HOPE (Hope, Organised religion, Personal spirituality, Effects of care and decisions), SPIRIT (Spiritual belief system, Personal Spirituality, Integration, Rituals/restrictions, Implications, and Terminal events) and Domains of Spirituality available that have undergone rigorous psychometric validation for spiritual history-taking (Fitchett, 2012). The end-result of such history-taking process maybe no further action required, or a referral to a spiritual practitioner for further assessment and intervention.

Lastly, spiritual assessment is considered to be an in-depth process of spiritual need evaluation by a spiritual practitioner using a conceptual framework without any pre-set questions. Some examples of assessment models are Pruyser model, 7x7 model and discipline of pastoral care giving model (Fitchett, 2012). Various authors indicate that patients who need spiritual assessment are usually identified from the spiritual screening or spiritual history-taking by the physicians or nurses, who can act

as spiritual generalists. The spiritual practitioner could be considered as a specialist, who then, based on the diagnoses of spiritual concerns, identifies appropriate goals and decides on an optimal care plan for implementing spiritual health interventions (Fitchett, 2012; Puchalski et al., 2009).

2.2.4.2 Spiritual concerns

It is a common practice in contemporary medical consultations that—based on patient's symptoms, signs and investigations—a diagnosis is made, before prescribing a treatment plan. Likewise, based on the above description of a three-level spiritual evaluation of a patient using spiritual screening, spiritual history-taking and spiritual assessment, a diagnosis of spiritual concern or lack of spiritual concern is established by the health professionals. The following is a list of common primary spiritual diagnoses (Puchalski et al., 2009):

- Existential concerns
- Abandonment by God or others
- Anger at God or others
- Concerns about relationship with deity
- Conflicted or challenged belief system
- Despair/hopelessness
- Grief/loss
- Guilt/shame
- Reconciliation
- Isolation
- Religious-specific (unable to pray or perform religious practices)
- Religious/spiritual struggle

A spiritual concern becomes a diagnosis when the following criteria are met (Puchalski et al., 2009):

- leads to distress or suffering
- primarily causes another psychological or physical illness
- secondary causes or affects the presenting primary diagnosis

After a spiritual concern diagnosis is established, spiritual health interventions may need to be planned and administered.

2.2.4.3 Spiritual health interventions

Spiritual health interventions could be divided into religious or spiritual interventions based on their defining characteristics. Levretsky (2010) highlights that spiritual health interventions should be tailored to the each patient based on their overall worldly experiences (Levretsky, 2010). Levretsky (2010) cites Richards and Bergin (1997) who differentiate the two types succinctly:

- Religious interventions - that are more structured, denominational, external, cognitive, ritualistic and public
- Spiritual interventions - that are more cross-cultural, affective, transcendent and experiential

Religious interventions like prayer and rituals, are usually provided by spiritual practitioners like chaplains, clergies or ministers. Spiritual interventions could be considered by trained clinicians including psychologists, counsellors, medical or nursing or other allied health practitioners.

Some of the spiritual health interventions—such as compassionate presence, reflective listening, life review, suggesting self-care techniques like journaling and writing—can be performed by anyone including physicians or nurses in the team. However, other therapies like progressive relaxation, meaning oriented therapy,

dignity-conserving therapy, exercise, yoga, tai-chi, meditation, massage therapy, mindfulness therapy, art or music therapy may need qualified personnel in the field.

2.2.4.4 Usefulness of spiritual interventions on health outcomes: evidence

Several published qualitative and quantitative studies have shown positive or neutral association between spiritual/religious interventions and well-being of patients with cancer. High level evidence in the form of randomised controlled trials for the efficacy of such interventions is rapidly accumulating. See Table II.

A recent Cochrane systematic reviews evaluated the effectiveness of spiritual and religious interventions on patients with terminal disease (Candy et al., 2012). The following interventions were considered: interventions that had some reference to beliefs or experiences that transcends material world, yoga, meditation, pastoral care from the likes of chaplain and multi-component intervention where spiritual/religious intervention was one of the components. They excluded studies where the intervention had no direct patient contact like intercessory prayer. The primary outcome measures were the effect of intervention on overall well-being, coping and quality of life. Secondary outcomes included spiritual well-being and other subjective symptoms as well as hospital admission and place of death. The reviewers identified five randomised controlled trials that met their criteria for study selection. All trials were published prior to 2011 (Candy et al., 2012). These studies were all conducted in North America with 1130 participants suffering from various terminal illnesses like cancer, heart or lung diseases. Meditation was the intervention in two trials (Downey et al., 2009; Williams et al., 2005) while the remaining three (Brumley et al., 2007; Gade et al., 2008; Rabow et al., 2004) had a chaplain or a spiritual counsellor as part of multidisciplinary team management. Results from the

review indicate that neither mediation nor multi-disciplinary chaplaincy care significantly improved overall well-being or quality of life over the comparator arms. However, one trial had a trend towards improved emotional support for the group that received chaplaincy or spiritual counselling as part of the intervention. The authors conclude that there was *inconclusive evidence that interventions with spiritual or religious components for adults with terminal disease may or may not enhance well-being. Such interventions are under-evaluated* (Candy et al., 2012 p1). The results of this review raise doubts on the applicability of spiritual or religious interventions for patients with terminal illnesses.

Since the publication of the above Cochrane review, there were several new trials with spiritual or religious interventions in patients with cancer (see Table II). The recently published trials were spread across the world with a variety of interventions such as spiritual assessment, dignity therapy, prayer, yoga, life story, meaning centred psychotherapy. The studies with small patient numbers often showed positive impact of the intervention on spiritual well-being, quality of life and depression/anxiety scores while larger trials, like the one authored by Daly and colleagues (2013) which showed no significant effect. The largest trial, by Olver and Dutney (2012) reported that intercessory prayer without direct involvement by patients improved spiritual well-being of the participants.

Table II: Randomised controlled trials with spiritual interventions published in PubMED since 2011

Title, Authors and Sample size	Intervention	Results
Restore: the journey toward self-forgiveness: a randomised trial of patient education on self-forgiveness in cancer patients and caregivers (Toussaint et al., 2014) N= 83	Encouraged self-acceptance, self-improvement, and commitment using prayer/meditation, reflection, and expressive writing	The multi-dimensional intervention improved levels of acceptance, self-improvement and self-forgiveness
Impact of relaxation training according to the Yoga In Daily Life® system on anxiety after breast cancer surgery (Kovacic et al., 2013). N=32	Yoga In Daily Life® system is a type of relaxation training	Lower levels of anxiety in women with breast cancer
Clinical trial of a supportive care team for patients with advanced cancer (Daly et al., 2013). N= 610	Individually tailored spiritual support through interdisciplinary cancer support team	No differences in health related quality of life between control and intervention groups
A pilot randomised controlled trial to reduce suffering and emotional distress in patients with advanced cancer (Lloyd-Williams et al., 2013). N= 100	Narrative interview to reflect on sense of "meaning", and story telling	Improvement in depression and anxiety scores in the intervention group
A randomised, blinded study of the impact of intercessory prayer on spiritual well-being in patients with cancer (Olver & Dutney, 2012). N= 999	Intercessory prayer added to normal cancer treatment	Intervention group had small but significant improvements in spiritual well-being as compared to the control group

The effect of spiritual therapy for improving the quality of life of women with breast cancer: a randomised controlled trial (Jafari et al., 2013). N = 68	Spiritual therapy intervention	Improved quality of life in women with breast cancer undergoing treatment with radiotherapy
Effects of a short-term life review on spiritual well-being, depression, and anxiety in terminally ill cancer patients (Ahn et al., 2012). Quasi randomised N = 32	Short-term life review	Statistically significant increase in spiritual well-being ; decreased depression and anxiety levels in the experimental group compared to the control group
Pilot randomised controlled trial of individual meaning-centered psychotherapy for patients with advanced cancer (Breitbart et al., 2012). N= 120	Individual meaning-centered psychotherapy (IMCP) compared with massage therapy	IMCP has clear short-term benefits for spiritual suffering and quality of life in patients with advanced cancer; however, there was no difference between the two groups after 2 months of intervention
Effect of dignity therapy on distress and end-of-life experience in terminally ill patients: a randomised controlled trial (Chochinov et al., 2011). N= 441	Three armed trial with dignity therapy, client-centred care, or standard palliative care	Dignity therapy was significantly better than client-centred care in improving spiritual wellbeing
Improving hospice outcomes through systematic assessment: a clinical trial (McMillan et al., 2011). N = 709	Systematic feedback from standardised assessment tools that had spiritual assessment component	No difference identified between intervention and control groups except in depression.

As described in the studies in Table II, the effectiveness of spiritual interventions is continually being evaluated by different researchers across the world. However, these trials have several methodological problems with different patient populations, multitude of intervention types, different outcome measures and end points. These issues affect the generalisability and applicability of results thereby limiting widespread uptake in routine clinical practice.

2.2.5 Barriers for providing spiritual care

In addition to the lack of practice changing high-level evidence through clinical trials, several other barriers to provide spiritual care for patients have been identified in the literature. Some examples include lack of training, skills and knowledge in assessment and provision of care, conflicting religious/spiritual beliefs of the healthcare providers, lack of time, not supported by the hospital administration, lack of resources (Culatto & Summerton, 2014; Kristeller et al., 1999; McCauley et al., 2005; Puchalski, 2012; Vermandere et al., 2011). One major barrier is lack of proper training during the preparatory years as a health professional (Puchalski, 2012). More than 85% of nurses and physicians in the United States have never received training in spiritual care (Balboni et al., 2013). A similar survey of National Health Service staff from the United Kingdom reported that only 34% had formal training in spirituality and health (Culatto & Summerton, 2014). From an Australian perspective, Harrington (2010) comments on the barriers to the provision of spiritual care.

2.3 Spiritual care training during medical education

As shown above, lack of training in spiritual care has been identified as one of the major barriers for the doctors to explore spiritual needs of their patients. Spirituality is an important domain in holistic patient care, and is being increasingly recognised for its importance. The recognised need for training in holistic care, including spiritual care, resulted in the incorporation of education on spirituality in various medical undergraduate curricula in American and Canadian medical schools (Koenig et al., 2010). Thus, an ability to provide holistic care is recognised as an important skill and knowledge a medical practitioner should possess. Incorporation of spiritual care training in medical courses may also promote development of medical students' core competencies like empathy, compassion, effective listening, respect for diversity, improve communication skills and practice of patient-centered care (Hartung, 2012).

A recent review identified that teaching on spirituality is not widely incorporated in medical school curriculum outside the North America (Lucchetti et al., 2012). In the United States, 84-90% of medical schools have courses/contents on spirituality (Koenig et al., 2010), whilst 59% of the medical schools in the United Kingdom teach some topics about spirituality (Neely 2008). Only 10% of Brazilian schools have a dedicated course on spirituality and health (Lucchetti et al., 2012). There is no published literature on the teaching of spirituality among Australian medical schools. Anecdotally, it is believed that the spiritual component in medical education in Australian medical schools has not been taken up widely. This is despite one of the accreditation standards put forward by the Australian Medical Council (AMC) is that the content of curriculum should ensure *that students experience whole patient care*

and *the roles of family and community supports and the influence of the physical, cultural, spiritual, psychological and social environment in determining the expression and course of disease in different individuals need to be witnessed* (Australian Medical Council, 2011).

Training on spiritual care has shown to be implemented across the world in post graduate training and specialty training programs like psychiatry, palliative care, family medicine and internal medicine (Lucchetti et al., 2012). However, the mode of delivery of spiritual care training varies among specialties. Structured modules/courses were identified in psychiatry and palliative care, but not in other specialties. No published description on the course content for training in specialist oncologists was identified from this thorough literature review. A review on "spiritual dimension of cancer care" concludes that the training of oncologists' would not be complete until they learn to identify spiritual/religious and cultural needs; to promote pertinent coping mechanisms and initiate optimal referrals for interventions (Surbone & Baider, 2010).

2.4 Spiritual care and education in Australian context

So far in this literature review, spiritual care and international trends of spiritual care training has been explored. In this section of the review, recent data on the spiritual beliefs of Australians is described, followed by a detailed description of published literature on the provision and education on spiritual care for Australian medical professionals.

2.4.1 Religious/spiritual beliefs of Australian population

Australia is a multi-cultural and secular nation with its residents/citizens having affiliations with different religions. As in many western countries, over the last 40 years the proportion of Australians who claim to be religious is decreasing, while those who are spiritual, but not religious (or no religious affiliations) are increasing (Australian Bureau of Statistics, 2012). In the recent 2011 Australian census, 18.7% of residents identified with "no religion" in contrast to 1.0 % in 1971 census (Australian Bureau of Statistics, 2012). Almost one in four (27%) people were first-generation Australians who were born overseas prior to emigration. Among the overseas born Australians, 20% reported no affiliated religion. In the same census, the indigenous population of Aboriginal and Torres Strait Islander origin was identified as approximately 3% of all Australians. The indigenous Australians have unique spiritual beliefs that underlie their perception of diseases and health care needs (Grieves, 2009; Shahid & Thompson, 2009).

2.4.2 Spiritual care for cancer patients by health professionals in Australia

There is sparse data available on the need for spiritual care among Australian cancer patients (McGrath, 2003; McGrath & Clarke, 2003; Tan et al., 2011). In a large survey, former palliative caregivers requested additional spiritual support be available to provide support for cancer sufferers (Hegarty et al., 2011). Another survey found 11% of advanced cancer patients reported that spiritual issues were major area of need during their cancer journey (Rainbird et al., 2009). A radiation oncology out-patients clinic survey highlighted that 22% of patients indicated that their well-being could have improved if they received emotional/spiritual support (Mackenzie et al., 2013). Many observational studies on nurses involved in palliative

care were reported from Australian centres in the literature. Ronaldson and colleagues (Ronaldson et al., 2012) described that palliative care nurses were more likely to be involved in advanced spiritual care practices than acute care nurses. A recent qualitative study by Best et al (Best et al., 2014) identified that patients with cancer believed that medical practitioners do have a role in spiritual support, by understanding their spiritual issues. Interventional studies from Australia were uncommon in the literature. The previously mentioned interventional trial on intercessory prayer for cancer patients was undertaken in South Australia (Olver & Dutney, 2012).

The national guidelines on psychosocial care for adults with cancer state that physicians should screen for spiritual or existential concerns especially when the patients move towards the terminal stages of their illness (National Breast Cancer Centre and National Cancer Control Initiative, 2003, p78). It also recommends that physicians should "listen with compassion" when addressing these concerns. An Australian commentator suggests that *physicians need not be pastors, but empathically engage with their patients' spiritual values and concerns by taking a spiritual history and making appropriate referrals to pastors without having to engage in prayer* as appropriate spiritual care (Pembroke, 2008 p555). A recent study reported that Australian medical professionals had a lower level of religious or spiritual beliefs than the general population (Fisher, 2012). The role of physicians in relieving spiritual distress at end of life is well described (Pronk, 2005). Ethical principles for physicians involved in spiritual care have been put forward (Winslow & Wehtje-Winslow, 2007). In practice, however, physicians preferred case-by-case patient-centered intuitive approaches when addressing spiritual issues rather than guideline based approach (Curlin & Roach, 2007). Another guideline by Cancer

Australia recently released in 2014 recommended that recognising spiritual suffering and responding to the suffering with optimal care co-ordination and referral interventions for adults with cancer (Cancer Australia, 2014). However, there is no information available in published literature on how Australian physicians, especially oncologists, provide spiritual care to their patients.

2.4.3 Training on spiritual care for health professionals in Australia

1. *Pre-registration education:* A thorough literature search conducted in 2013 failed to identify any studies related to medical education for spiritual care from Australian medical schools. Australian Medical Council (AMC), the peak governing body that ensures the standards of medical education in Australia, states that one of the key attributes of *Graduates completing basic medical education should have knowledge and understanding of: factors affecting human relationships, the psychological, cultural and spiritual wellbeing of patients and their families, and the interactions between humans and their social and physical environment* (AMC 2011 p14). The University of Sydney has a program to support spiritual needs of patients by medical graduate students during their training period (personal communication with Ken Curry). Recently, the University of Western Australia has recently started an elective program with modules on spirituality for medical students (Bennett, 2014). Furthermore, there were no studies reported from Australia on nursing education for spiritual care (Cooper et al., 2013).

2. *Post-graduate/Specialist training:* Some of the post-graduate training courses and specialist professional colleges highlight the need for addressing spiritual needs of patients. Two examples include the Royal Australasian College of General Physicians (RACGP, 2011) and Palliative Care Australia (Palliative Care Australia,

2005). Palliative care training programs have well defined modules on spiritual care for patients with its origins in 1990s (Kellehear, 2000). A study on the effect of a purpose designed series of workshops improved the skills and knowledge of palliative care professionals in addressing spiritual needs and care of patients (Meredith et al., 2012). Furthermore, psychiatrists have recognised the importance of having training in this area (D'Souza & George, 2006). Flinders University of South Australia have a topic in spiritual care in a post-graduate palliative care nursing program (personal communication with A. Harrington).

The current curriculum for medical oncology advanced training put forward by Royal Australasian College of Physicians (RACP) necessitates that the trainee should be able to "recognise spiritual conflicts associated with the diagnosis and treatment of cancer" under the learning objective 3.1.1. – "manage the psychosocial care of cancer patients and their carers and families" (The Royal Australasian College of Physicians, 2013). The trainees are expected to use the national guidelines on psychosocial care for adults with cancer (National Breast Cancer Centre and National Cancer Control Initiative, 2003). However, the basic post-graduate training program curriculum fails to address spiritual care for patients. There are no published studies addressing the nature and extent of spiritual care provided by the practicing medical or radiation oncologists in Australian setting of cancer care.

2.5 Conclusions

In summary, spiritual care needs are common in people facing major illnesses like cancer. However, their needs are not often met by the healthcare providers. One major reason for this unmet need is lack of training in the area of spiritual assessment and further management. There is a small body of evidence in the field of spiritual

care in Australian setting. However, no published literature could be found on the practices and attitudes of Australian oncologists on spiritual care and their preparedness to practice. This study will therefore focus on Australian oncologists' current practice, preparedness and prior education on spiritual care of cancer patients in Australia to address this evident gap in knowledge. The research design and methods used in the study are described in the next chapter.

Chapter III: Research design and methods

3.1 Introduction

The previous chapter described the prior understandings available in the field of spiritual care for patients with cancer and the preparedness of oncologists to cater to the spiritual needs of their patients. Research from different countries indicate that patients with cancer have significant concerns related to spirituality and their usual care providers do not often meet the spiritual needs (Balboni et al., 2013; Balboni et al., 2014; Balboni et al., 2010). However, there was little published information available regarding Australian oncologists and their training in spiritual care. Due to this lack of previously published studies in the Australian context, it is unclear if the spiritual needs of the patients with cancer are being addressed by the treating oncologists.

The current study is an exploration of spirituality and spiritual care in the context of care provided to patients with cancer in Australia. The principle aim of this study was to explore the current practice of Australian oncologists and oncology trainees in the domain of spiritual care and their preparedness to deal with the spiritual needs of their patients. In this chapter, the research design and methodology including objectives, target population, data collection mode and instrument, details of the survey questionnaire, sample size calculation ethical considerations and analysis plan used for the study will be described.

3.2 Research objectives

The key objectives of this research were as follows-

1. To explore the current practice and preparedness of Australian oncologists and oncology trainees on the provision of spiritual care for their patients with cancer.
2. To evaluate Australian oncologists' and oncology trainees' prior education on providing spiritual care for patients with cancer.

3.3 Research design

A research design is the blueprint that clearly describes the plan for research, study questions, data to be collected, methods for data collection and analysis of the collected data (Shi, 2008). Based on the purpose of a study, the research designs can be either exploratory research (to identify new ideas or explore novel processes), or descriptive research (describing one or more variables in a selected population), or causal research (to establish cause and effect relationship) (Brown, 2012). To address the key objectives of the current study, a **descriptive research design** was chosen. This choice was made as descriptive research designs are commonly used to address research questions without manipulating the study environment and when the intent is to garner knowledge on the phenomenon under study, which in this case is of the preparation and practice of providing spiritual care.

3.4 Research method

A quantitative **survey** research method was chosen to address the study objectives. Survey research method is defined by the Health Technology Assessment review as *a set of scientific procedures for collecting information and making quantitative inferences about populations* (McColl, 2001). Surveys are important research tools in many fields including medicine, public health, sociology and marketing, to collect

data from a small sample of a large population. Researchers often prefer to use surveys to explore questions that are not reliably answered by other research methods (Bennett et al., 2010). Surveys are used to collect the characteristics of a selected population in addition to their behaviour, future intentions, beliefs, knowledge, attitudes, and opinions of a large group of respondents in an efficient, valid (measuring what it is supposed to measure), reliable (reproducible), unbiased (with minimal error in estimation) and discriminating (distinguishing responders) manner (McColl, 2001). Prior studies in the field of spirituality research have used the survey methodology with good outcomes (Bennett et al., 2010; McSherry & Jamieson, 2011).

For this study, a quantitative **cross-sectional survey** method to collect data at one point in time from the respondents in line with the research objectives was chosen. This methodology is commonly used in the field of research in spirituality as it allows collection of data from a large number of participants within a short period of time, with the aim that it is generalisable to a larger population. The objectives of the current study involve exploration of perceptions and attitudes of the respondents. Survey methodology was considered a useful approach to address the study objectives. Due to these reasons, survey methodology was chosen to conduct this research.

3.5 Data collection mode

The first decision point to be made was the mode of survey distribution. Self-administered questionnaires (where the survey questions are sent through mail, emails or online and are self-filled by the respondents) or structured interviews (either conducted in person or telephone where the researcher verbally asks the

survey questions to the participants) are the two major modes of administering surveys (McColl, 2001). Self-administered questionnaires may be preferred over interviews as they are inexpensive, can reach participants in wide geographic area, and may be adequate to answer questions that are simple and straight forward with fixed and limited number of responses. However, structured interviews can provide the researcher with richer quality of data if in-depth responses are required from the respondents. Wide availability of the internet has resulted in online surveys being a common mode of delivering questionnaires by the researchers in the field of spirituality (Balboni et al., 2013; Balboni et al., 2010; Balboni et al., 2007; Cetinkaya, 2013; McSherry & Jamieson, 2011; Moberg, 2010).

An online survey method was chosen to data collection. The online route offers the added benefits of rapid delivery and return of surveys, better graphic presentation of the surveys, anytime responses by the respondents without any time pressure, direct data entry through web-survey hosting services and cheaper costs (Tuten, 2010). However, online surveys have disadvantages, including incomplete responses, skipping questions, lack of interactions between the researcher and the respondent, lack of visual cues, low response rates and although becoming rare, lack of coverage of potential respondents without email access (Tuten, 2010). The population sought for this study were qualified medical practitioners in Australia who had easy access to internet and emails. Therefore, standardised **self-administered online questionnaire survey** was selected as the data collection method.

3.6 Data collection online instrument

Several tools and instruments have been developed to measuring spirituality and spiritual care in the context of clinical research. In a recent review, Moberg (2010)

identified more than two hundred such tools that evaluate spirituality. Each instrument served a different purpose depending on the context of the research, such as assessing individual's own spirituality or spiritual needs of the respondents. The tools also catered to various disciplines such as medical practitioners, nursing, chaplains and psychologists. Despite such abundance of instruments, there is no single popular tool that is widely used outside the domain of researchers within a particular specialty (Moberg, 2010).

As there are several tools available to collect data, there is no consensus on the best tool. Previous studies on health practitioners' spirituality and ability to provide spiritual care used various online instruments (Alcorn et al., 2010; Balboni et al., 2011; Balboni et al., 2013; Balboni et al., 2014; Balboni et al., 2010; El Nawawi et al., 2012; Epstein-Peterson et al., 2014; McSherry et al., 2002; McSherry & Jamieson, 2011; Peteet & Balboni, 2013; Phelps et al., 2012). In addition, most surveys evaluate either spirituality or spiritual care, but not both. The literature review identified few studies that used survey instruments assessing both spirituality and spiritual care provided by healthcare practitioners and their prior training in the field of spiritual care (McSherry et al., 2002; Meyer, 2003; Tiew & Creedy, 2012).

The questionnaire developed and validated by McSherry and colleagues (McSherry et al., 2002; McSherry & Jamieson, 2011) provided adequate resource material for the objectives of this current study. Their questionnaire was used to evaluate the perceptions of nursing staff on spirituality and spiritual care in the United Kingdom. This questionnaire incorporated questions on demographics, the Spirituality and Spiritual Care Rating Scale" (SSCRS) of the respondents and their prior training in spiritual care.

The online questionnaire SSCRS was pilot tested by the original researchers (McSherry, Draper et al. 2002) and subsequently, the questionnaire was validated by a large number (more than 1000) of respondents (McSherry & Jamieson, 2011).The SSCRS was used and independently validated by researchers from other countries including the United States of America and Turkey (Cetinkaya, 2013; Meredith & O'Shea, 2007). As most other questionnaires were developed by a single research team without external independent validation, the questionnaire tool used by McSherry et al (2011) was selected for the current study as it was applicable to multiple disciplines and validated. Permission to use the questionnaire was obtained from the principal author, Professor Wilf McSherry, Faculty of Health, Staffordshire University and the Shrewsbury and Telford Hospital, United Kingdom. The questionnaire was modified, adapting the words relating to nursing to represent medicine, such as to include medical training rather than nursing training. As all other questions remained the same and only the context was changed from nursing to medical, the internal validity and reliability of the instrument was not expected to be affected.

3.7 Questionnaire tool used for the current study

The chosen tool by McSherry et al (2011) incorporates closed-ended questions; however it was decided to incorporate four open ended questions for this study. The majority of the published survey tools have **closed-ended questions** where the respondents are provided with a list of options to respond. Such questions are easy to answer and provide reliable collection of data. Closed-ended questions have responses that are either dichotomous, multiple-choice, rankings or rating scales (Sue, 2011). Although these questions provide data for clear quantitative statistical

analysis, the responses are limited by the choices provided by the researchers. The other category of question is called **open-ended questions,** where the response options are not provided and the respondents reply in their own words. These questions require responses in words, sentences or paragraphs in the space under the questions; thereby allowing the respondents own thinking and opinion to be collected by the researchers. Although open-ended questions have a diverse set of answers, such questions may result in less data collected when compared to asking the same question in closed-ended format (Sue, 2011).

3.7.1 Question format

The online survey instrument used for the study had four parts labelled A, B, C and D similar to the original survey (See Appendix 1). The questions in Part A covered demographics while part B related to employment/professional status of the participants. Part C explored the individual's perceptions and attitudes on spirituality, spiritual care, and training in spiritual care as well as the SSCRS while Part D explored the religious beliefs of the participants. There were 22 questions in total with predominantly closed-ended questions and four open-ended questions. Among the closed-ended questions, ten had a dichotomous response, eight had multiple responses, and the remaining was made of rating scales.

There were only two questions that were open-ended and had options for free text to explain reasons or describe in details for the original binary (yes or no) responses. One of the questions was "*Do you feel that you are usually able to meet your patients Spiritual Needs?" yes/no – please provide details?* Another question was *"Are you practicing your religion? Yes/no; If yes, please briefly describe in what capacity you practise i.e. attend Services and the likes etc."* Although mixing methods within the

same survey may not be appropriate, the open-ended questions were included to explore the perceptions and attitudes of the respondents, one of the key objectives of the study, in their own words.

3.7.2 Spirituality and Spiritual Care Rating Scale

One of the components of the survey instrument is a 17-item scale, "The Spirituality and Spiritual Care Rating Scale" (SSCRS). This scale incorporates four subscales – spirituality, spiritual care, religiosity and personalised care. This scale was originally developed and validated by McSherry and his colleagues with a Cronbach alpha coefficient of 0.64 to 0.76 (McSherry et al., 2002; McSherry & Jamieson, 2011). The authors who developed SSCRS scale indicate that the domains describe spirituality as a "*broad, generic and subjective concept, concerned with both tangible and hidden aspects of life, and encompasses connection with – and awareness of – transcendent relationships and connections with people, the environment and the wider universe*" (McSherry et al 2010).

The SSCRS provides an opportunity to assess each respondent's perceptions on spirituality and spiritual care using multiple questions. The fundamental domains assessed in the scale includes hope, existentialism – meaning, purpose and fulfilment, forgiveness, beliefs and values, spiritual care, relationships, belief in a God or deity, morality and conduct, and finally creativity and self-expression. These items are scored 1 to 5 on a Likert-type scale (1- "strongly disagree", 2 – "disagree", 3 – "uncertain", 4 – "agree", 5 – 'strongly agree"). The average of the total points correlate with perception of spirituality and spiritual care where a value closer to five corresponded to a higher level of perception of spirituality/spiritual care (Cetinkaya, 2013). This scale has demonstrated consistent reliability and validity in establishing

nurses' perceptions of spirituality and spiritual care (Cetinkaya, 2013; Lovanio, 2007; McSherry & Jamieson, 2011; Meredith & O'Shea, 2007). This scale was included in this study for assessing spirituality and spiritual care of medical professionals.

3.8 Study population

A multi-disciplinary team of health professionals – medical, nursing and allied health staff often provide care for patients with cancer. For this study, the focus was on the medical team including practicing oncologists and oncology trainees currently undergoing their specialist medical training in Australia with an estimated population of more than 500 for the year 2014. This group was chosen as the relevant **study population** as the key objectives of the current research was to identify what oncologists think about spiritual care for their patients and if they had undergone any training to deal with the spiritual needs of their patients.

3.9 Study sample

Sampling refers to the process of selecting a small subset of a larger population for collecting information on variables that could be used to make generalisable inferences about the entire population (Shi, 2008). The two primary organisations that support oncologists in Australia are the Medical Oncology Group of Australia (MOGA) and the Royal Australian and New Zealand College of Radiologists (RANZCR). These two associations were professional bodies for continuing education, training and research collaborations for its members. It was expected that the majority of the Australian oncologists and oncology trainees would have been a member of one of these organisations. To maximum the potential sample size, the

study included all Australian oncologists and oncology trainees (medical and radiation oncology) from a population size of 531 physicians in total (personal communication from the secretaries of the organisations). Trainees were also included to enable comparison of years of experience and past training, on their perceptions.

The sampling frame refers to the list(s) from which the study participants were selected (Shi, 2008). Current members of MOGA or RANZCR comprised the original **study sampling frame.** The Clinical Oncological 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. COSA is a multi-disciplinary organisation that has memberships from oncologists, palliative care physicians, nurses, pharmacists, psychologists, social work and consumers. This organisation facilitates continuing education, training and research collaborations for its members. Online responses from individual oncologists or trainees made up the **sampling unit** of analysis within the current study. Opening-up the survey to COSA members resulted in responses from non-medical professionals as well as improving the number of responses from medical professionals. However, such a change in survey respondents did not affect the primary research objectives. Instead, it created a subsidiary research question on how Australian non-medical professionals deal with spiritual care issues of their patients and also allowed comparison of data between medical and non-medical professionals.

A small proportion of the oncologists/trainees who were not members of these professional bodies were not part of the sampling frame. No oncologist or trainee was excluded from responding to the survey so as to avoid any bias. Although this

process of selecting participants could be called as **convenience sampling** (using all available subjects within an organisation), it could also be considered as **probability sampling**, as all members had equal chance to participate in the survey. So, it was believed that the current study had respondents who were part of a "**representative sample**" of the population of oncology medical professionals.

3.10 Administering the questionnaire

The selected instrument online tool was transcribed onto the web-hosting software program called SurveyMonkey®. Among the web survey software programs, SurveyMonkey® was chosen due to its simplicity, cost and previous experience of the researcher with the program. SurveyMonkey® provided customisable questionnaire administration, data collection, data analysis and representation of results (SurveyMonkey). The managing administrative staff of each of the organisations (COSA, MOGA and RANZCR) was requested to send an email invitation to its members to participate. The body of the email had a hyperlink to the questionnaire on SurveyMonkey®. A repeat email was sent 4 weeks later to improve the response rates.

3.11 Sample size calculation

An expert statistician was consulted to calculate the sample size for the current study to ensure accuracy. The following factors were considered for sample size calculation – the estimated total number of oncologists and trainees in Australia (531 in total), 2011 Australian census data on religious affiliation (61% of Australians had a religious affiliation while 22% were atheist), a conservative estimate of 50% of

medical professionals would perceive that spiritual care is needed for their patients, and a response rate of 25-30% (Australian Bureau of Statistics, 2012; Australian Institute of Health and Welfare, 2012) The "spiritual care" subscale of the spirituality and spiritual care rating scale was also considered. The six items within this subscale had a lowest possible score of 6 and highest possible score of 30, with a mean score of 18 and variability of 5% (McSherry & Jamieson, 2011). From this information, 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 half 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.

3.12 Ethical considerations

The research study was submitted to the Social and Behavioural Research Ethics Committee at Flinders University for approval in January 2014. Final ethics approval was granted in March 2014. Subsequently, two amendments were approved once in May 2014 and then again in July 2014 to accommodate the change in participant recruitment.

3.12.1 Information to the participants

Initial contact with potential participants was via the organisations' email. A hyperlink to the survey was given in this initial contact. The first page of the online survey had a more detailed invitation to participate with a brief description on the main purpose of the research. The time (15 minutes) taken to complete the survey was indicated in the information sheet. Contact details of the researcher, study

supervisors and the Flinders University ethics committee were provided, for any clarification if the participants had any further questions.

3.12.2 Confidentiality

The survey did not collect any identifying information other than gender and age range of the respondents. However, the respondents had the option of leaving their contact email details at the end of the survey to obtain results of the research. Access to the survey results on SurveyMonkey® was held by the researcher using a password protected secure access.

3.13 Analysis plan

In the following part of the chapter, the plan for analysis of quantitative and qualitative data collected from the survey tool will be described.

3.13.1 Coding and data management

Since the quantitative analysis of survey data required conversion of answers into numbers, the response variables were transformed into categories and coded. A codebook was created with all the variables. Most of the closed-ended questions were automatically coded by the online SurveyMonkey® software program. Multiple responses to the closed questions were coded using multiple response method with each variable coded for each participant (De Vaus, 2002). Open-ended questions were coded based on the scheme developed by the observation of the responses provided by the respondents.

3.13.2 Dealing with missing data

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 (De Vaus, 2002).

3.13.3 Quantitative analysis

The collected quantitative data was analysed and results presented using statistical methods. 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. Results were displayed as tables and graphs for different variables. 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 spiritual care 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).

As the Spirituality and Spiritual Care Rating Scale (SSCRS) evaluated several domains, data collected from the survey provided enough information for calculation of total SSCRS scores and spiritual care scores. Mean and standard deviation for these scores were calculated. Since the responses included data from non-medical

professionals in addition to medical professionals, data from the two groups of medical and non-medical professionals were compared for any statistical differences with respect to demographics, total SSCRS scores spiritual care scores and self-perceived ability to meet spiritual care needs. An exploratory analysis of identifying factors that predicted high spiritual care scores and self-perceived ability to meet spiritual are needs was performed.

3.13.4 Analysis of qualitative data

This study is a quantitative cross-sectional online survey using questionnaire. There were four open-ended questions that provided opportunity for exploring qualitative responses that may provide valuable insight into the quantitative results (see Appendix 1). Since the main focus of the study is of quantitative in nature, qualitative research methods and data analysis plan are only briefly dealt with in this chapter. The data collected from these four qualitative questions are expected to be textual responses that provide itself for further content analysis.

The textual data was extracted from the online survey onto a word document. Descriptive content analysis was performed on the open text data. Content analysis is defined as a systematic method of analysing and describing qualitative data collected into simpler categories of phenomenon (Elo & Kyngas, 2008). Content analysis was the chosen unit of analysis prior to coding (Liamputtong & Ezzy, 2008). As Saldana (2009 p13) summarises, *a code represents and captures a datum's primary content and essence*. Cyclical coding was performed to identify patterns in data for categorisation. Using a process of analytic reflection of the categories that were explicit in the data, themes were derived to increase understanding of the attitudes and perceptions of oncologists on spiritual care for their patients (Saldana, 2009).

Similarly, concepts and categories were derived inductively for the remaining qualitative questions that explored the religious practices in the survey. Following the principles of content analysis, as put forward by Kellehear (1993), the sample to be categorised was identified and the number of times the categories occurred were counted and results presented.

3.14 Rigour

Scientific rigour of a study is best described as the quality of the research process applied to meet the research objectives (Saumure & Given, 2008). A rigorous research yields more trustworthy research findings. For this study, a thorough literature review was performed prior to formulating the research objectives followed by selection of a pretested and previously validated questionnaire to collect data. Anonymous data was collected using a convenience sampling strategy. Duplicate responses from the same email link were not allowed. During data analysis, data management was performed meticulously prior to appropriate use of statistical analytical tests with consultation from an experienced statistician. Study limitations and possible biases are disclosed in chapter 5.

3.15 Summary

This chapter has described the research objectives, design method, data collection process, study population as well as data analysis plan. In the next chapter, results from the survey will be presented.

Chapter IV: Results

This chapter outlines the results from the survey conducted on oncology professionals and trainees on their current practice, preparedness and prior education on spiritual care for their patients.

4.1 Background information on data collection

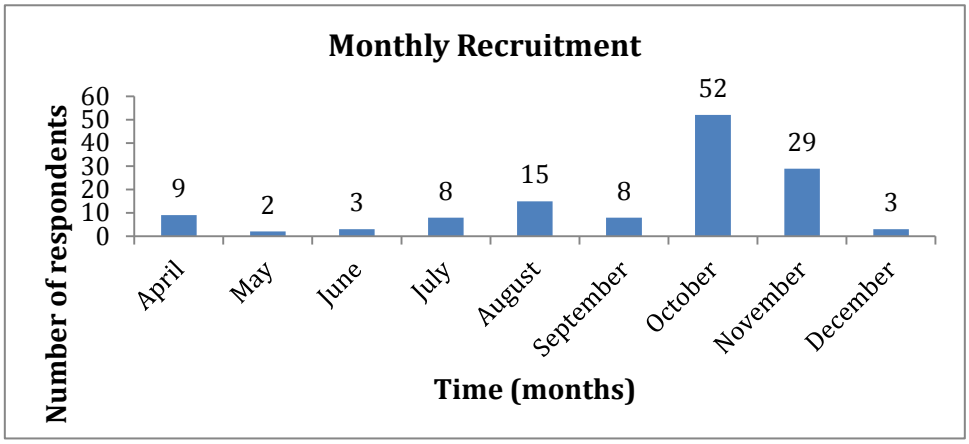
The survey was forwarded to potential respondents through various organisations that support cancer care health professionals including Medical Oncology Group of Australia (MOGA), the Royal Australian and New Zealand College of Radiologists (RANZCR) and Clinical Oncology Society of Australia (COSA). Members of both MOGA and RANZCR are usually medical professionals with training and qualifications in medical oncology and radiation oncology, respectively. The medical professionals from these two organisations were the primary target population for the survey. However, the initial survey response rates from members of MOGA and RANCR were poor (only 45 responses of which 18 were incomplete) resulting in an insufficient sample size. As previously discussed in the methods chapter, COSA members were approached to increase the response rates to the survey, so as to reach adequate sample size. The members of COSA are from various specialties including medical and non-medical professions such as nursing, pharmacy, allied health fields and consumer representatives. All the members of COSA have special interest in the care of patients with cancer. A survey link with the invitation to participate was emailed to all the COSA members by the Administrative Assistant officer of COSA without limiting it to the medical members. Such an approach resulted in survey responses from multi-disciplinary participants. To identify each cohort, an additional

question of the survey asked whether the respondents were medical or non-medical professionals so as to help with data analysis and interpretation. The following representation of the survey results is for both medical and non-medical professionals with comparisons performed where possible between the two cohorts.

4.1.1 Time-frame of data collection

The survey was open online from the 15th of March 2014 to the 12th of December 2014. The senior project officer from RANZR sent out the survey link/invitation letter to its members on the 1st of April 2014 while MOGA members received them on the 21st of July 2014. The secretariat of COSA emailed the link to its members on 13th of October 2014. Fig 4.1 illustrates the monthly recruitment with spikes in responses corresponding to the email invitations sent out by each organisation. The majority of participants (65%) were recruited in the last three months of the data collection period after the invitation to participate was sent through COSA.

Fig 4.1: Monthly recruitment



4.1.2 Response rate for the survey:

The exact number of people to whom the survey was sent is difficult to determine. Several recipients of the survey were likely to be members of multiple organisations i.e. a potential respondent could be a member of both MOGA and COSA or RANZR and COSA. In addition, there were health professionals from different fields among the respondents and the total population of these different fields was not available. Due to these reasons, it is not possible to accurately determine the response rates to the survey. However, given 58 medical oncologists of a total of 616 MOGA members responded to the survey it is estimated that the response rate for the survey was approximately 10%, acknowledging this figure does not account for all respondents. Previous surveys conducted on oncologists in Australia by other researchers had similar response rates (Luckett, 2014).

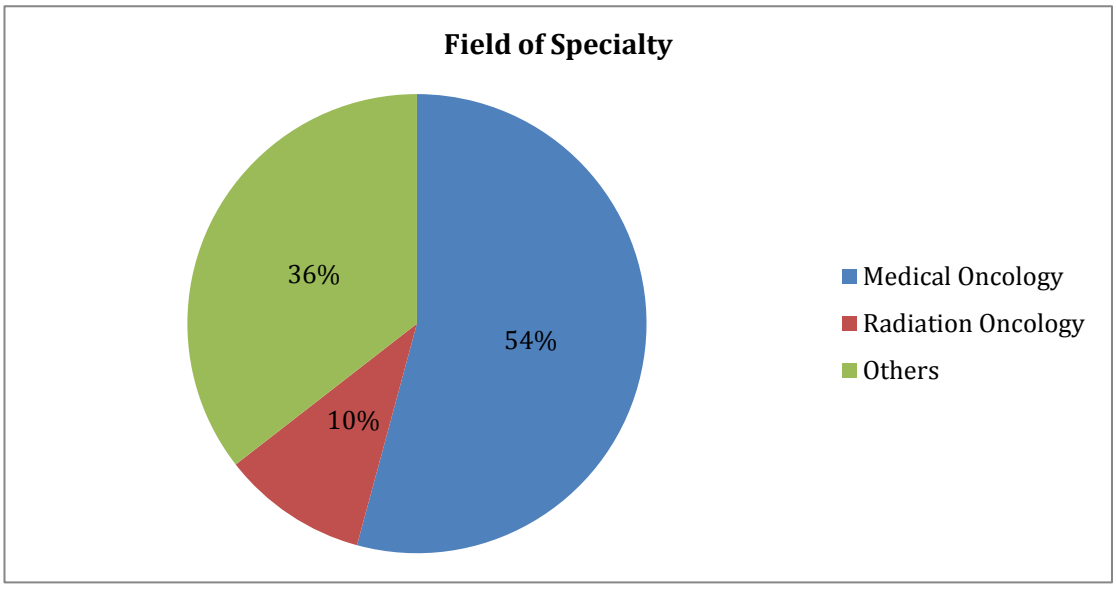
A total of 107 completed surveys were analysed in detail. Whilst there were a total of 129 surveys commenced, 21 were incomplete or inadequate for any reasonable analysis and one person 'declined to participate' with reason listed as 'not wanting to record their identification details'. The invitation email clearly indicated that the survey was conducted anonymously and there were no identification details required to fill-in the survey unless the participant wanted results of the survey to be sent to them. Of the total 128 who agreed to participate, the incomplete responses were excluded, giving 107 completed surveys which are summarised below.

4.1.3 Specialty

Due to a wide variety of specialties among the respondents, the results were analysed as two different cohorts – medical professionals (including medical and radiation

oncologists) and non-medical professionals (including all other respondents). Of the 107 complete surveys, 69 (64% of the survey respondents) were medical professionals while the remaining 38 (36%) were non-medical professionals. Among the medical professionals, the majority (n=58; 54% of the total respondents) were medical oncologists/trainees while radiation oncologists/trainees were only 10% (n=11) of the respondents. Of the 38 non-medical professionals, 23 were nurses, six were psychologists/counsellors, three were pharmacists, two were pastoral carers, one each of dietitian, acupuncturist, massage therapist and consumer advisor. See Fig 4.2.

Fig 4.2: Field of specialty



To remain consistent with the primary research question and for ease of reading, results for the group of medical professionals are described first, followed then by the results for the non-medical professionals. A comparison between the two groups was performed where possible to highlight the differences and similarities.

4.2 Medical Professionals

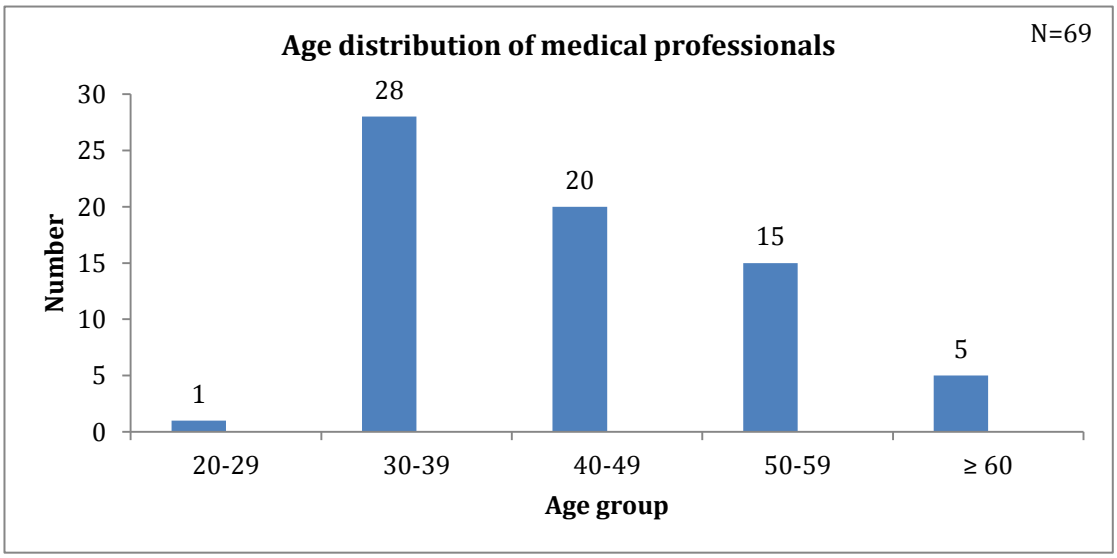
The following section illustrates the demographic details, training on spiritual care, spiritual care in clinical practice and scores from SSCRS of the medical professionals who responded to the survey.

4.2.1 Demographics

Age distribution

The majority (40 out of 69 i.e. 58%) of the medical professionals were older than 40 years of age. There was only one respondent under 30 years of age while only 5 were older than 60 years. The age distribution (Fig 4.3) of the respondents clearly reflects the expected times taken to become an oncology trainee or consultant in their respective specialty in Australia or elsewhere in the world. The average age of a specialty trainee is in the 30s while consultants are likely to be older than 40 years of age.

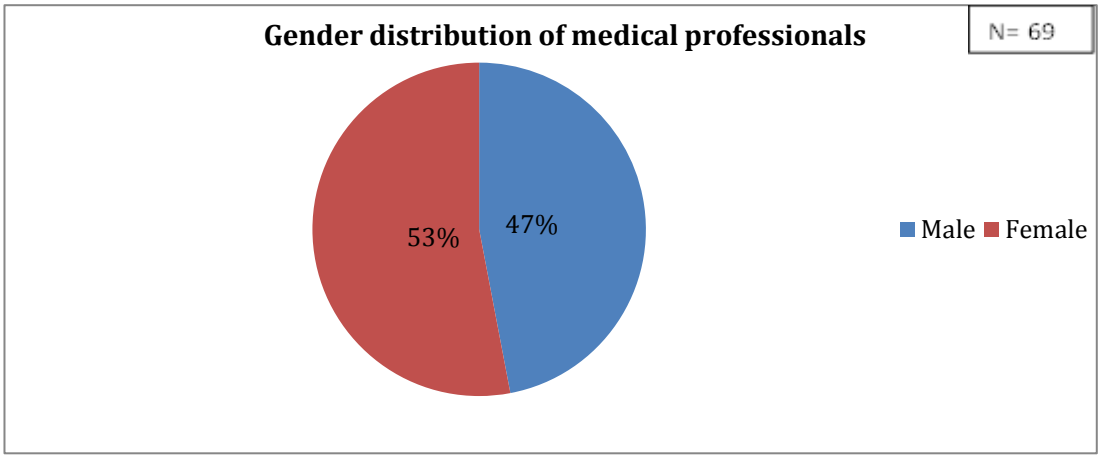
Fig 4.3: Age distribution of medical professionals



Gender

There were a slightly higher number of females than the males among the survey respondents. Women represented 53% and men were 47% of the medical professional cohort. See Fig 4.4.

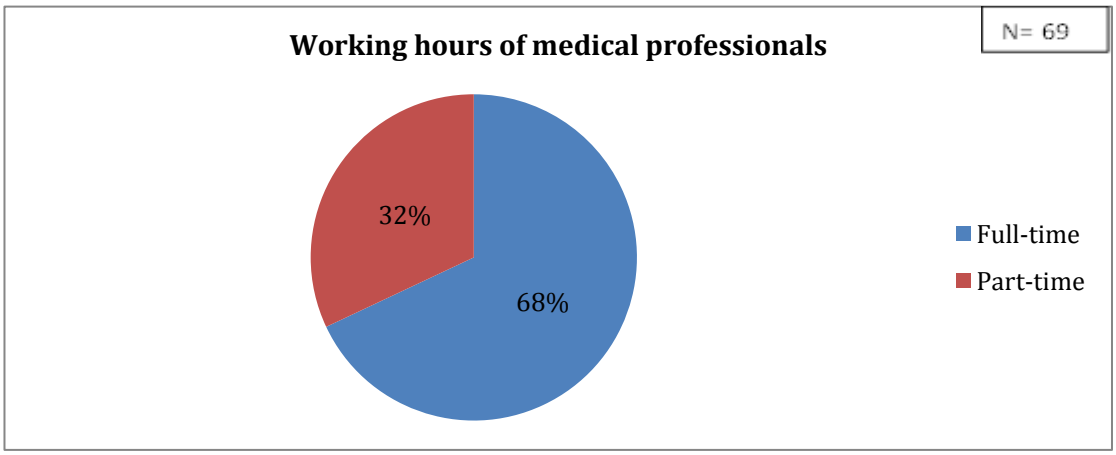
Fig 4.4: Gender distribution of medical professionals



Working hours

Nearly two-thirds (68%) of the medical professionals were working full-time while the remainder were employed part-time. See fig 4.5.

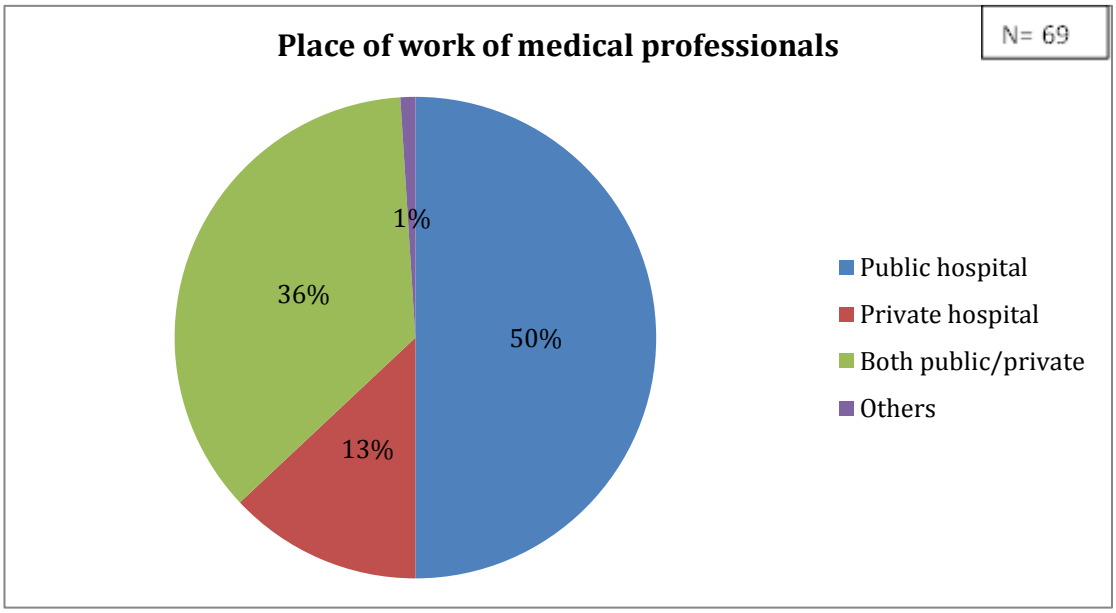
Fig 4.5 Working hours of medical professionals



Place of work

In Australia, the majority of oncology training and cancer care is provided in public hospital systems. Some private hospitals do provide medical oncology and radiation oncology services for cancer patients. However, trainees do not typically work in private hospitals during their training period. This current clinical practice was reflected in the survey results. Half of the medical professionals were employed in public hospitals either as consultants or oncology trainees while 13% were working only in private oncology hospitals. Nearly one-third were working in both public and private hospitals. A small proportion (n=2) listed as "others" in the pie chart below were purely academics in university. See fig 4.6.

Fig 4.6: Place of work of medical professionals

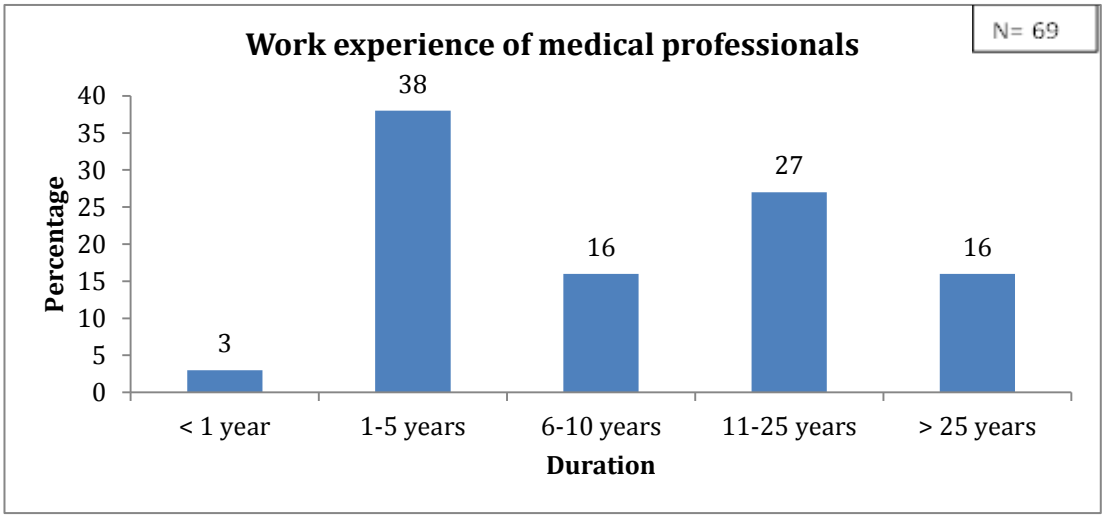


Work experience in cancer care:

A large proportion (41%) of the medical respondents had less than five years of work experience in providing cancer care to patients. A similar proportion (43%) had

worked in the field of cancer for more than ten years with 16% having more than 25 years of experience in treating patients with cancer. See fig 4.7.

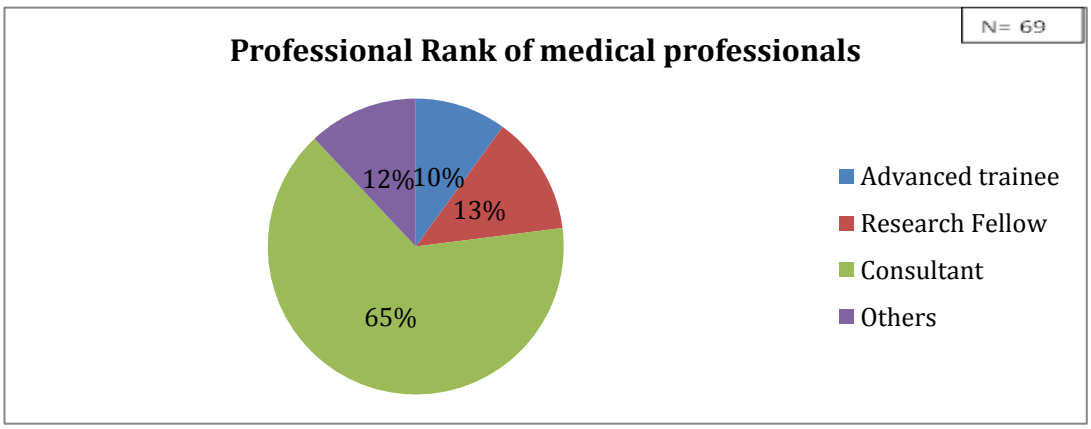
Fig 4.7: Work experience of medical professionals



Professional rank

Among the medical professionals, two-thirds of the respondents (n= 44) were practicing consultants while only 10% (n= 7) were currently undergoing training in oncology (either medical or radiation oncology). The remainder were employed as clinical or laboratory researchers. See fig 4.7.

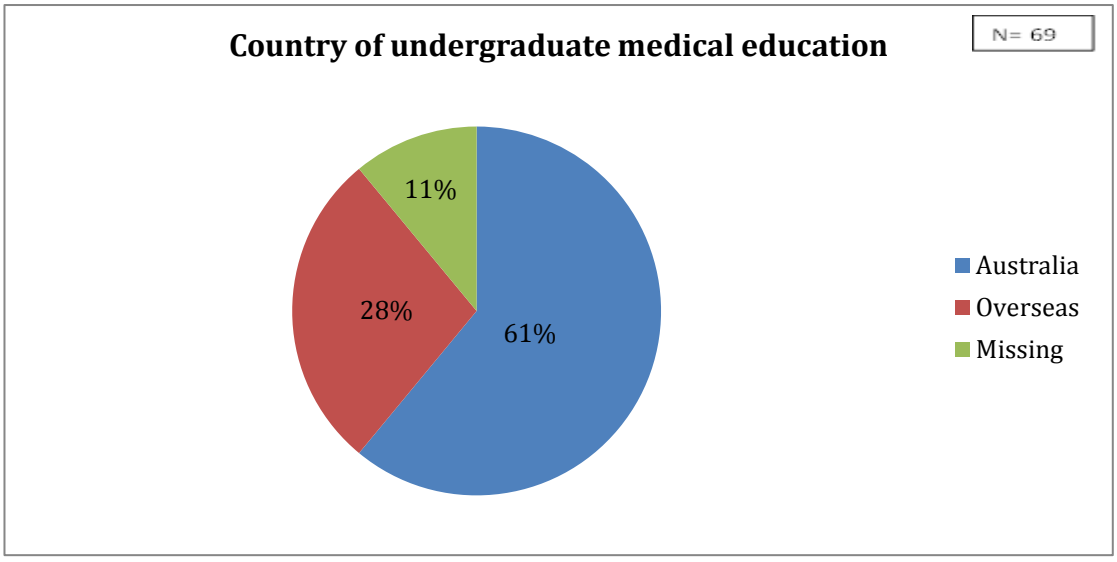
Fig 4.8: Professional rank of medical professionals



Country of medical education

Among the survey respondents, the majority of medical professionals (n= 42, 61%) undertook their undergraduate medical education in Australia. Approximately one in four (n= 19, 28%) reported that they had their training overseas in countries including Canada, England, India, New Zealand and the United States. The remaining (n= 8, 11%) failed to answer this particular question on country of undergraduate medical education. See fig 4.9.

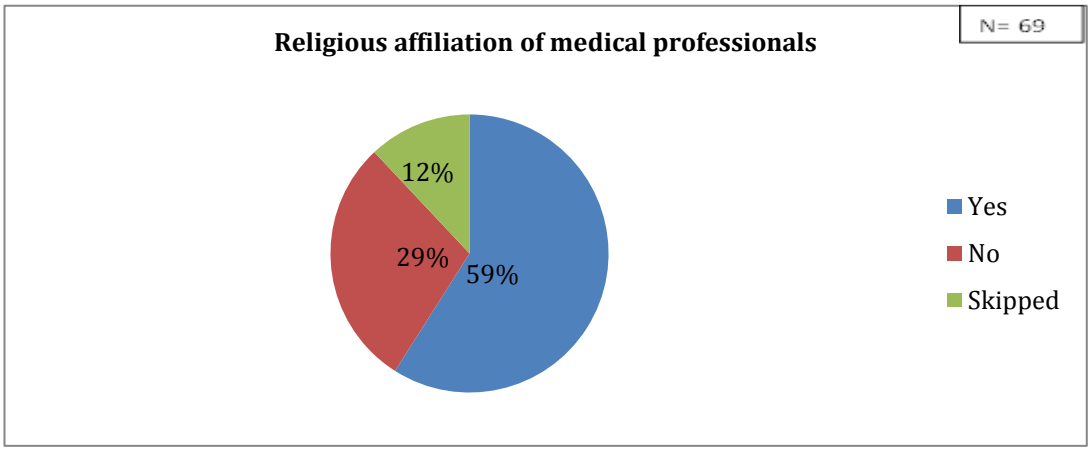
Fig 4.9: Country of undergraduate medical education



Religious affiliation

The respondents were asked if they have any religious affiliation. Almost 60% (n= 41) replied yes while 29% (n= 20) indicated that they do not have a religion. However, eight out of 69 skipped the question without answering either yes or no. See fig 4.10.

Fig 4.10: Religious affiliation of medical professionals



Type and practice of religion

The 41 respondents, who replied that they did have a religious affiliation were requested to indicate the type of religion they were affiliated with, and if they practiced their religion. A large proportion (n= 16, 40%) skipped answering this question while (n=18, 45%) identified as Christians and 15% (n=7) were followers of other religions. See fig 4.11. Among the respondents who answered the question on actual practice of religion, 42% (n= 17) practiced religion in some form while 17% did not have any religious practices. See fig 4.12.

Fig 4.11: Type of religion as per medical professionals

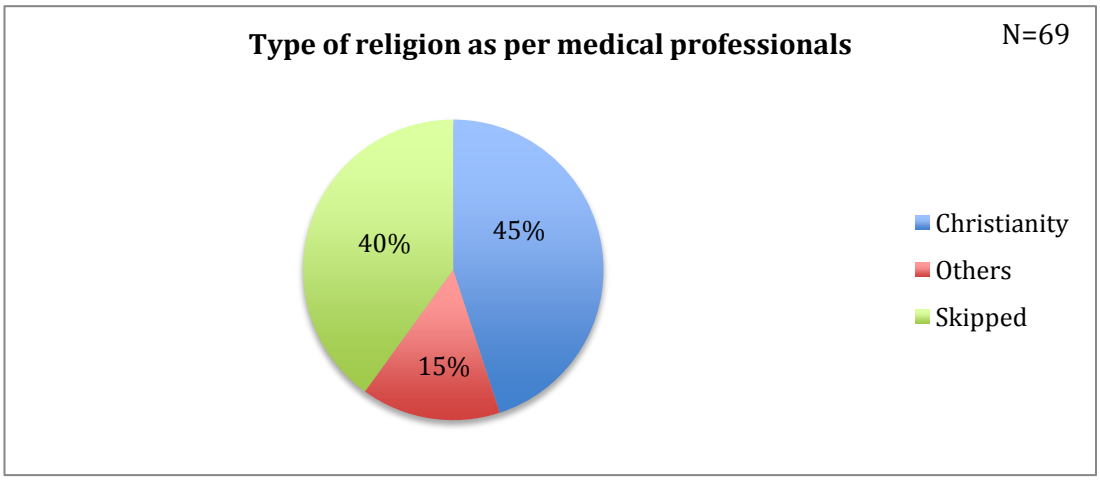
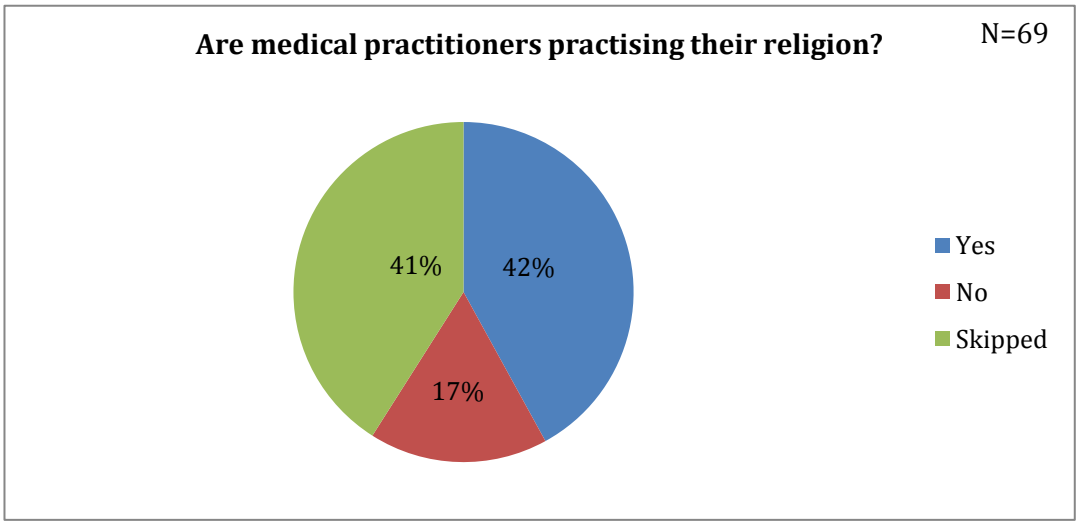


Fig 4.12: Are medical practitioners practicing their religion?



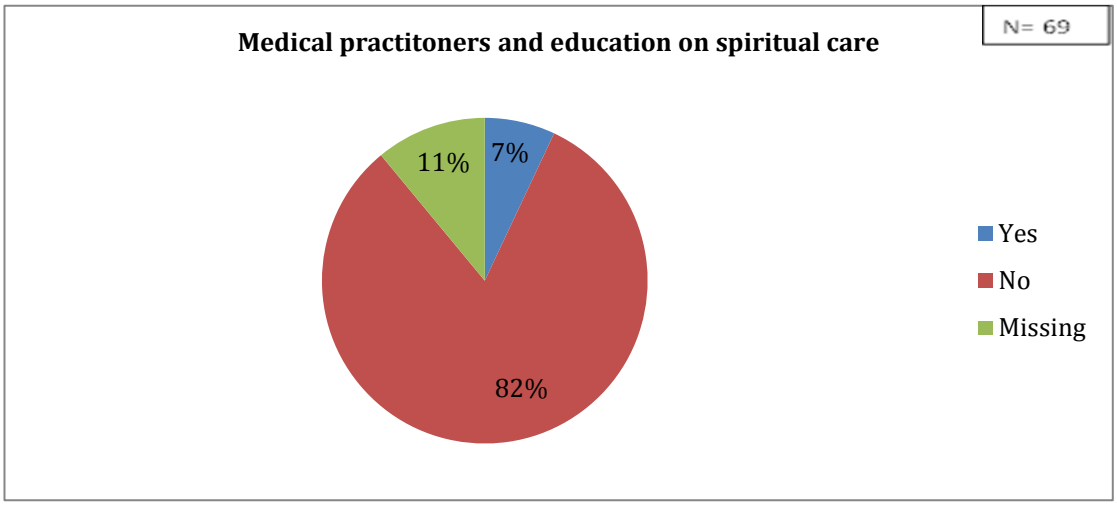
The respondents were likely from multiple cultural backgrounds as identified from their religious affiliations. Some of the responses to the survey questions might have been affected by their cultural beliefs. However, the diversity in spiritual beliefs adds value to the richness in the data collected.

The next section deals with responses regarding training received on the provision of spiritual care by medical professionals.

4.2.2 Education on spiritual care

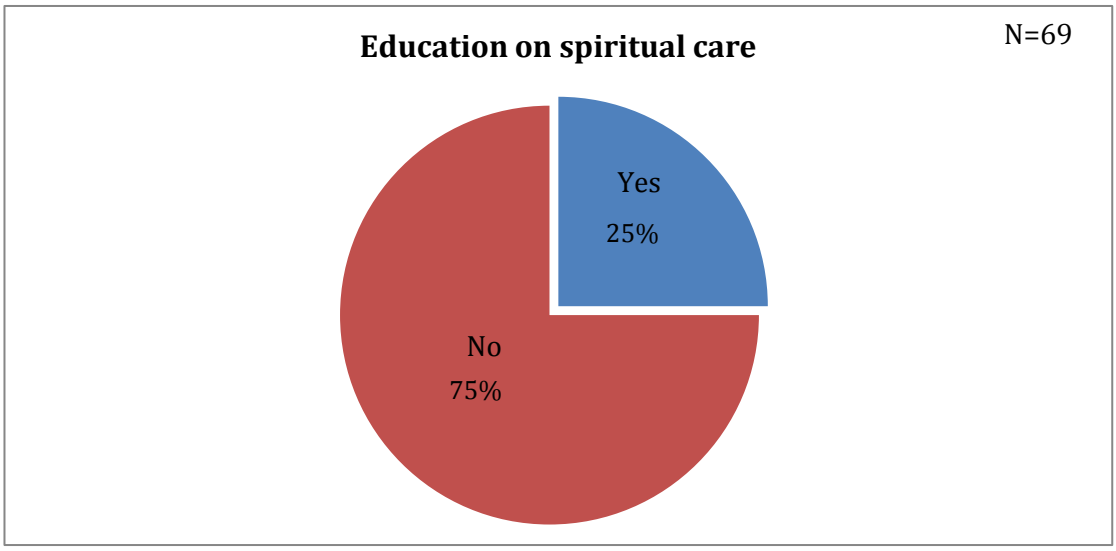
The respondents were asked if medical practitioners received sufficient training on matters concerning spiritual care. Eighty two percent (n= 57) of respondents replied that the medical professionals did not receive training while only 7% (n = 5) confirmed that their training was adequate to deal with their patients' spiritual needs. See fig. 4.13.

Fig. 4.13: Medical practitioners and education on spiritual care



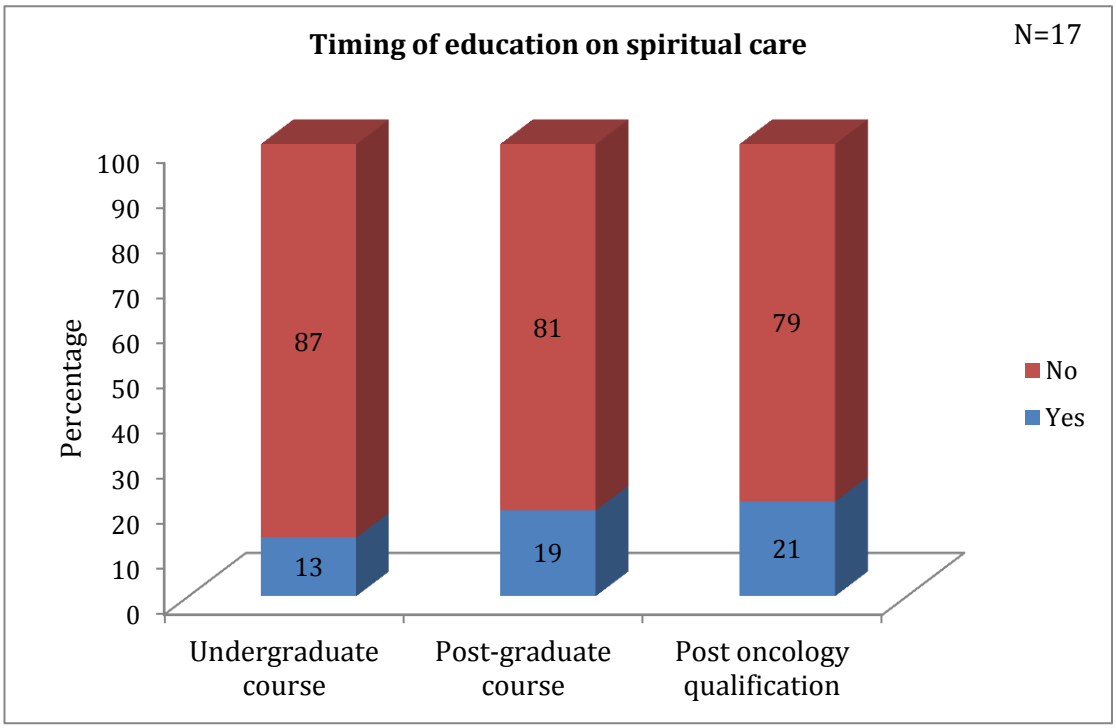
The participants were asked if they received any form of education covering spiritual care during their professional training. The majority (n=52, 75%) indicated that they did not receive any education on spiritual care during their professional training in medicine or oncology. However, 25% (n=17) of the respondents acknowledged that they have been formally educated on the provision of spiritual care during their professional training. See fig. 4.14.

Fig 4.14: Education on spiritual care



The participants who replied that they did receive some form of education on spiritual care during their professional training (n=17, 25%) were requested to explain when and how they received this education. As multiple responses were allowed for this question, it is possible that the same respondent may have received education either during undergraduate, post-graduate courses or both times of their professional training. Nine respondents replied that they received education during their undergraduate medical training while four respondents indicated they had received education in post-graduate oncology studies. An additional two respondents had training after they become a practicing oncologist (see fig 4.15).

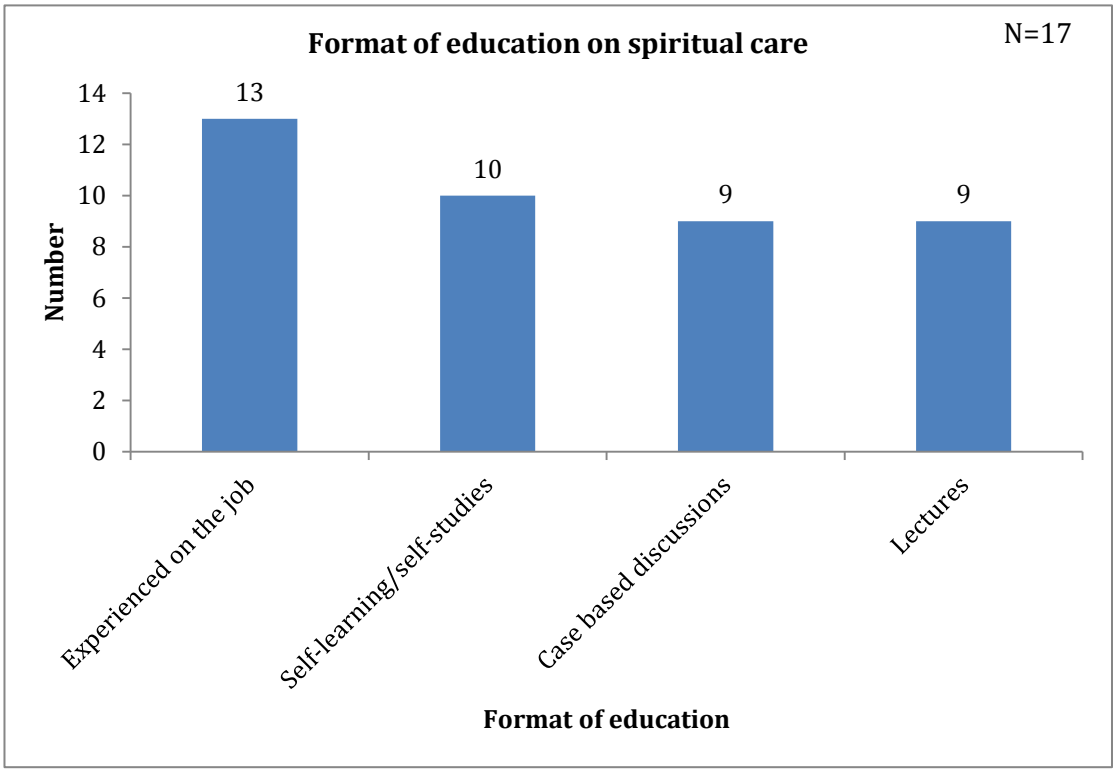
Fig. 4.15: Timing of education on spiritual care



The respondents (n= 17) were also asked to indicate the format of education they received during their training. Thirteen out of 17 respondents had learnt to deal with issues that related to spiritual care based on their experience during their clinical practice, while ten had undertaken self-studies. Formal lectures or case-based

discussions were reported by nine participants as their education. See fig. 4.16. The best format for educating professionals on dealing with spiritual care needs of their patients may be difficult to define due to the abstract, sensitive and subjective nature of spirituality (Laurence, 1999). However, systematic assessment of spiritual needs using previously defined questionnaires may help healthcare providers to identify spiritual needs prior to the actual provision of care through experts in the field.

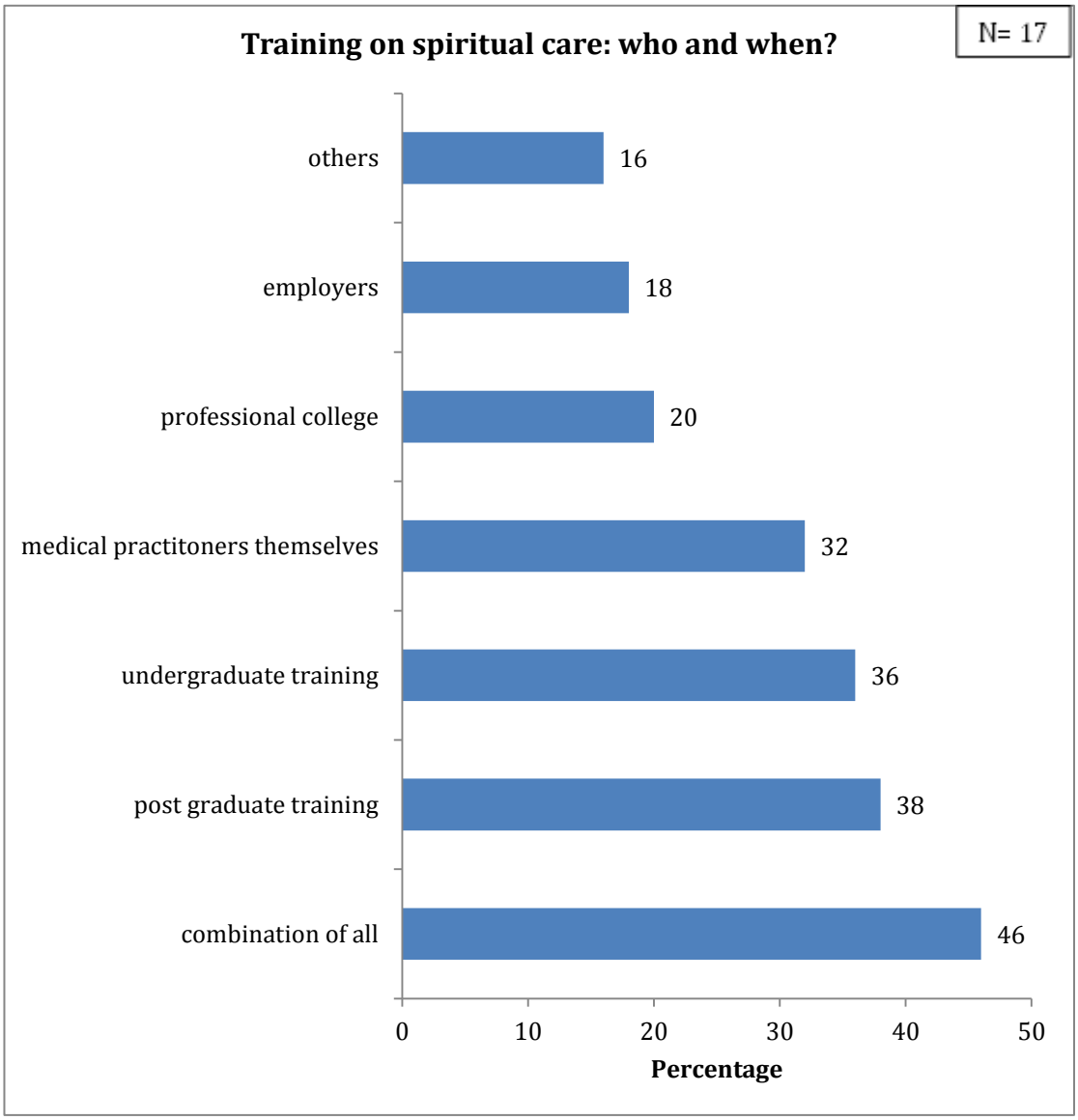
Fig. 4.16: Format of education on spiritual care



The respondents of the survey were asked to identify who should be responsible for providing education concerning spiritual care and when it should be provided. Multiple responses were allowed for this question. See fig. 4.17. The respondents identified a combination of professional college, employers, medical schools and self-learning as their preferred providers of education on spiritual care. Medical practitioners through self-learning were the most common single entity (32% of the

respondents, n= 5) listed in the multiple choice responses. The preferred timing of spiritual care education was similar between undergraduate and post graduate training courses (36 and 38% each, n= 6 and n= 7 respectively). A large proportion (46%, n= 8) preferred education in spiritual care should be provided during both medical school training and oncology training.

Fig. 4.17: Training on spiritual care: who and when?

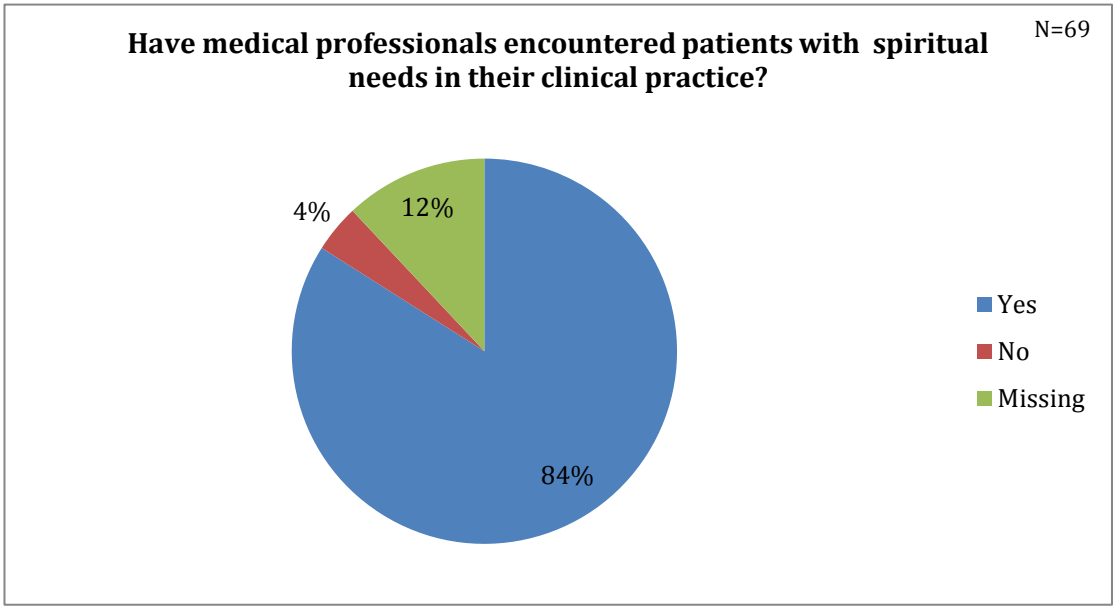


In the next section, the actual experience of medical practitioners dealing with spiritual needs of patients in their usual clinical practice was explored.

4.1.3 Spiritual care in clinical practice

The medical practitioners were asked to identify if they have ever encountered patients with spiritual needs in their clinical practice. Fifty eight of 69 (n = 58; 84%) medical practitioners agreed that they had seen patients with spiritual needs while only three respondents denied that they had encountered anyone with such needs. Eight (11%) failed to answer this question. See fig.4.18.

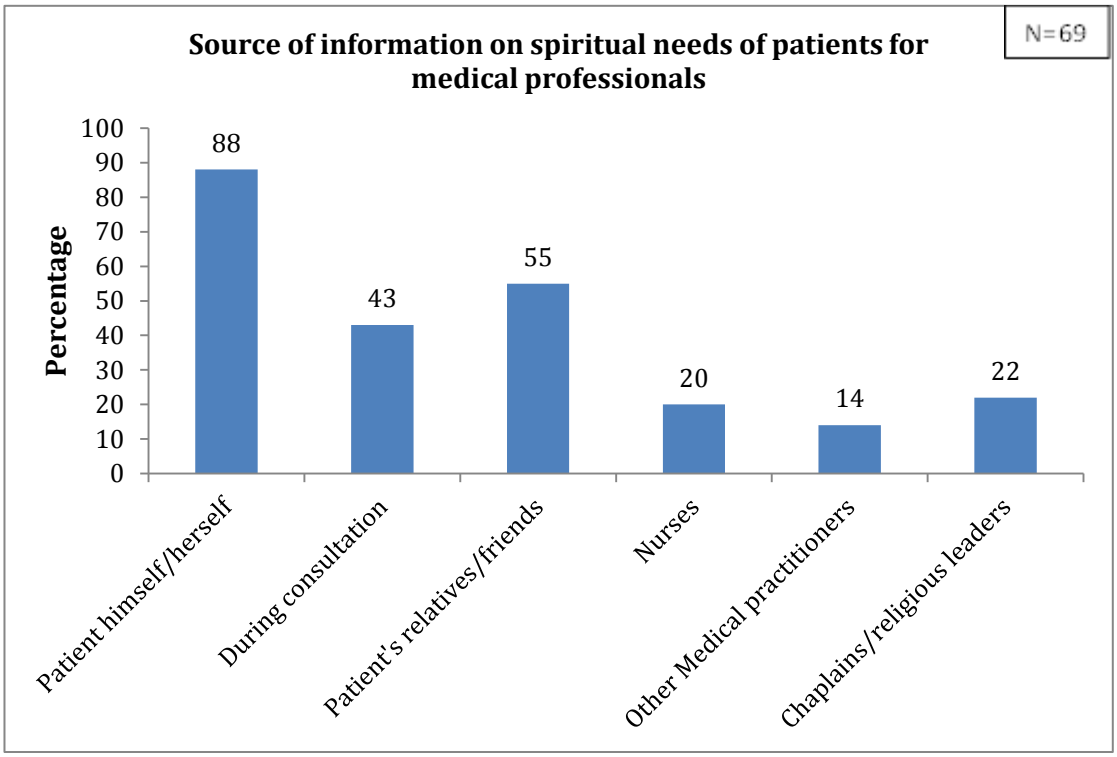
Fig.4.18: Have medical professionals encountered patients with spiritual needs in their clinical practice?



The survey respondents were then asked to identify the source of information through which they were able to recognise the spiritual care needs of their patients. A variety of sources were identified by the respondents. See figure 4.19. As multiple responses were allowed, more than one source was recognised by the medical practitioners. From the data, patients themselves (n= 60; 88%) and their family/friends (n = 38; 55%) were the major source identified. Spiritual needs were

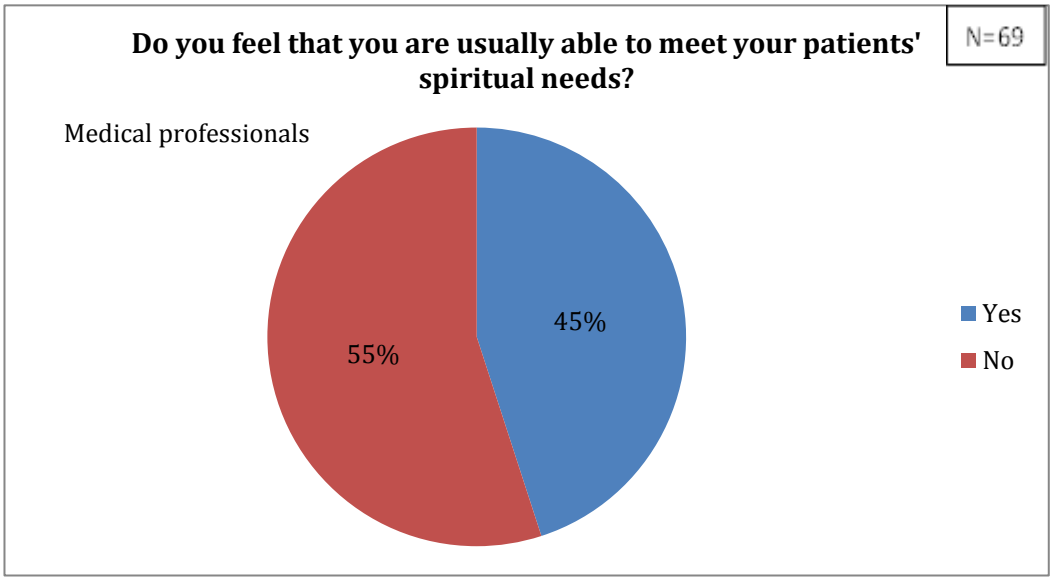
also identified during the course of their medical consultation by 43% (n = 30) of the respondents. Not surprisingly, nurses and religious leaders were the source of information about the patient's spiritual needs for a large proportion (n = 45;65%) of respondents.

Fig. 4.19: Source of information on spiritual needs of patients for medical professionals



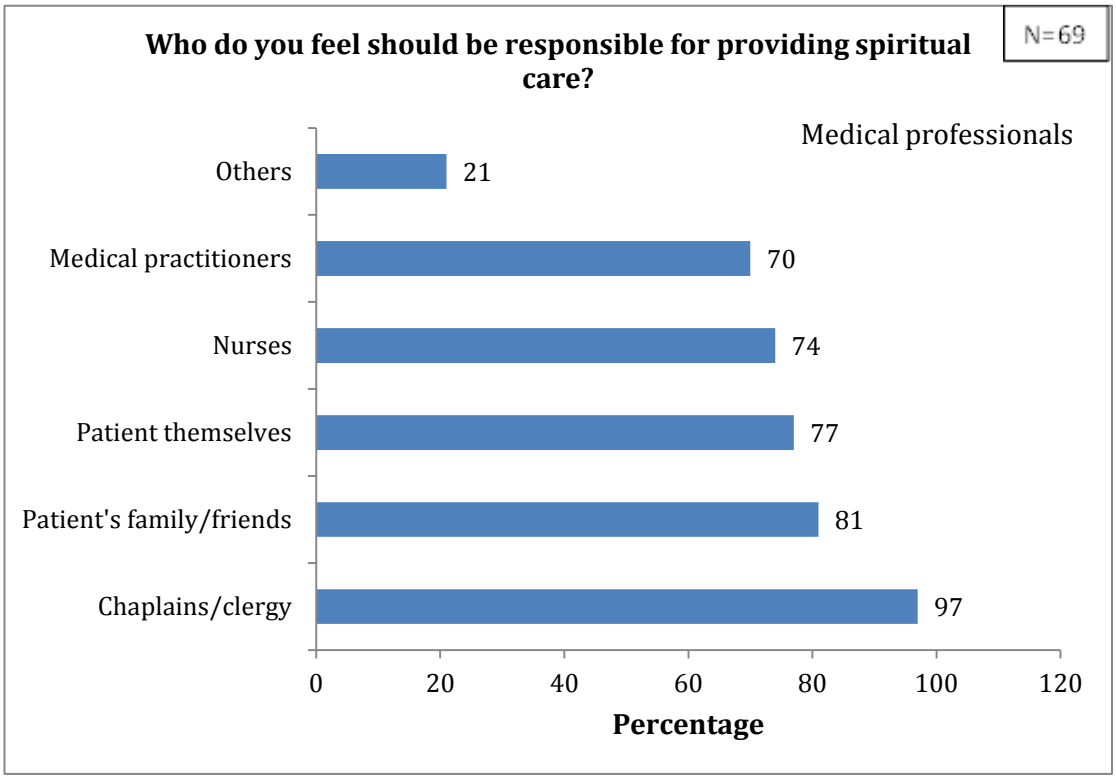
When the medical practitioners were questioned on their ability to meet their patients' spiritual needs, 45% (N= 31) responded that they were able to meet the requirements either partly of completely for their patients. See figure 4.20

Fig. 4.20: Do you feel that you are usually able to meet your patients' spiritual needs?



Lastly, medical practitioners were questioned on their perceptions as to who should be responsible for providing spiritual care to their patients. A variety of responses were given by the participants. However, chaplains or clergy were the preferred people by almost all respondents (97%, n = 68) for provision of spiritual care while patients' family/friends and patient themselves were the preferred by nearly 80% of the respondents. Among the healthcare providers, nurses and medical professionals were also considered to be responsible for the provision of spiritual care by a large proportion of participants (74% and 70% respectively). See fig. 4.21. A multidisciplinary team approach was preferred by a small group of respondents.

Fig 4.21: Who do you feel should be responsible for providing spiritual care?



4.3 Non-medical professionals

In the next section results for non-medical professionals who responded to the survey are described.

4.3.1 Participant's characteristics of non-medical professionals

This section illustrates the demographic details, training on spiritual care, and spiritual care in clinical practice of the non-medical professionals and demonstrates similarities and differences to the medical cohort where relevant. Table III describes participant characteristics of both medical and non-medical professionals along with significant differences identified between the two cohorts. The majority (n= 24 out of 38; 63%) of the non-medical professionals were older than 50 years of age and most

(n= 34 out of 38; 90%) were women indicating gender bias in occupations like nursing. This is in contrast to the medical professionals who were often younger than 40 years of age and were equally divided between men and women.

Table III: Participant's characteristics (n=107)

Parameter	**Cohorts**			**P value**
	Overall (n=107)	Medical professionals (n=69, 64.5%)	Non-medical professionals (n=38, 35.5%)	
Sex				<0.001
Male	37 (34.6)	33 (47.8)	4 (10.5)	
Female	70 (65.4)	36 (52.2)	34 (89.5)	
Age, y				<0.01
<40	34 (31.8)	29 (42.0)	5 (13.2)	
40-49	29 (27.1)	20 (29.0)	9 (23.7)	
50-59	33 (30.8)	15 (21.7)	18 (47.4)	
60+	11 (10.3)	5 (7.3)	6 (15.8)	
Working hour				0.23
Part time	30 (28.0)	22 (31.9)	8 (21.1)	
Full time	77 (72.0)	47 (68.1)	30 (79.0)	
Place of work				0.01
Public	53 (49.5)	34 (49.3)	19 (50.0)	
Private	13 (12.2)	9 (13.0)	4 (10.5)	
Both	33 (30.8)	25 (36.2)	8 (21.1)	
Other	8 (7.5)	1 (1.5)	7 (18.4)	
Oncology experience, years				0.15
≤5	36 (33.6)	28 (40.6)	8 (21.1)	
6-10	16 (15.0)	11 (15.9)	5 (13.2)	
11-25	35 (32.7)	19 (27.5)	16 (42.1)	
25+	20 (18.7)	11 (15.9)	9 (23.7)	
Religion				0.23
No	37 (37.4)	20 (32.8)	17 (44.7)	
Yes	62 (62.6)	41 (67.2)	21 (55.3)	
Type of religion				0.31
Christianity	52 (83.9)	33 (80.5)	19 (90.5)	
Other	10 (16.1)	8 (19.5)	2 (9.5)	
Practice religion				0.74
No	19 (30.7)	12 (29.3)	7 (33.3)	
Yes	43 (69.3)	29 (70.7)	14 (66.7)	

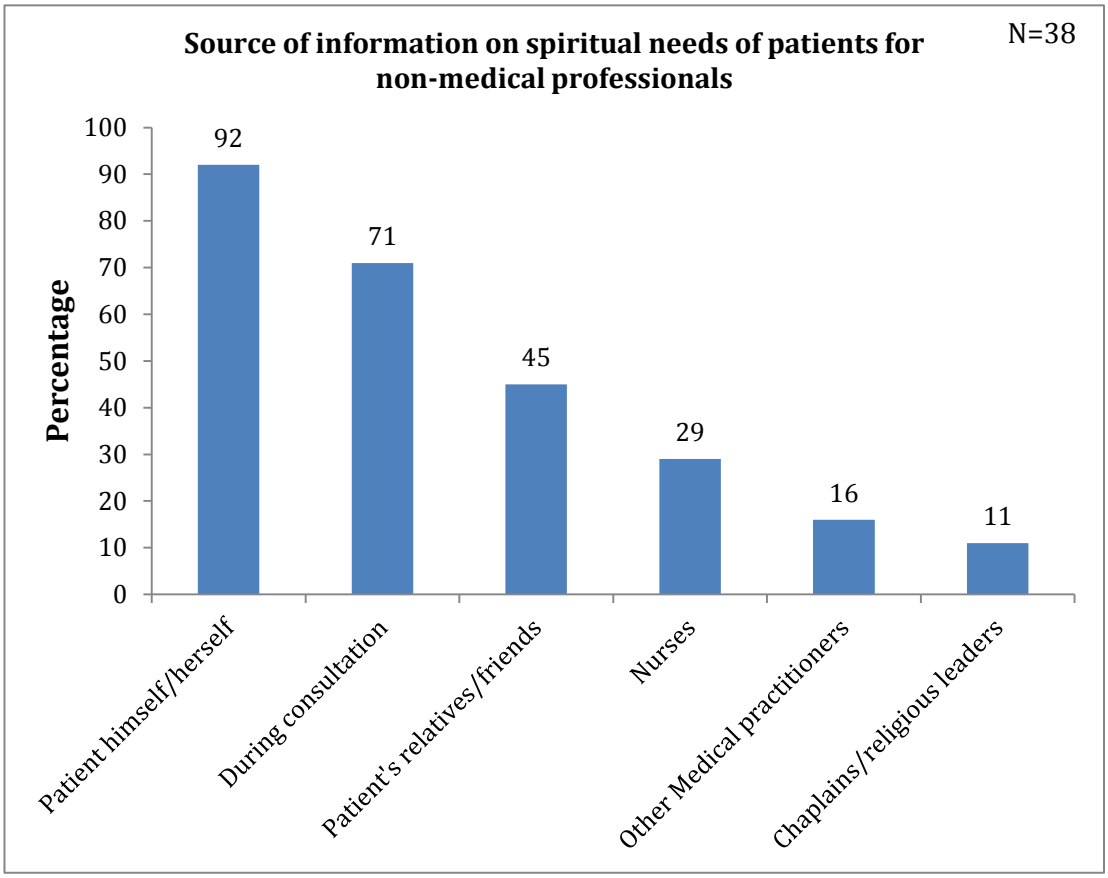
Numbers (percent) are shown. *p* values are based on Chi-square test

Note (Table III): Of 107 participants, almost 65% (n=69) were medical professionals with 42% (n=29) below age 40 years. Whereas, 38 participants (35.5%) were non-medical professional with 47.4% (n=18) are in the 50-59 age groups. Both groups have statistically significant difference of age and gender. Non-medical professionals are working fulltime at a little higher rate than medical professionals. However, medical professionals were based on both public and private hospitals. Non-medical professionals have higher experience of oncology. Although not significant, medical professional believed in religion more than non-medical professionals, with almost 84% (n=52) identifying as Christians. Practicing religion was not significantly different between two groups.

4.3.2 Spiritual care in clinical practice

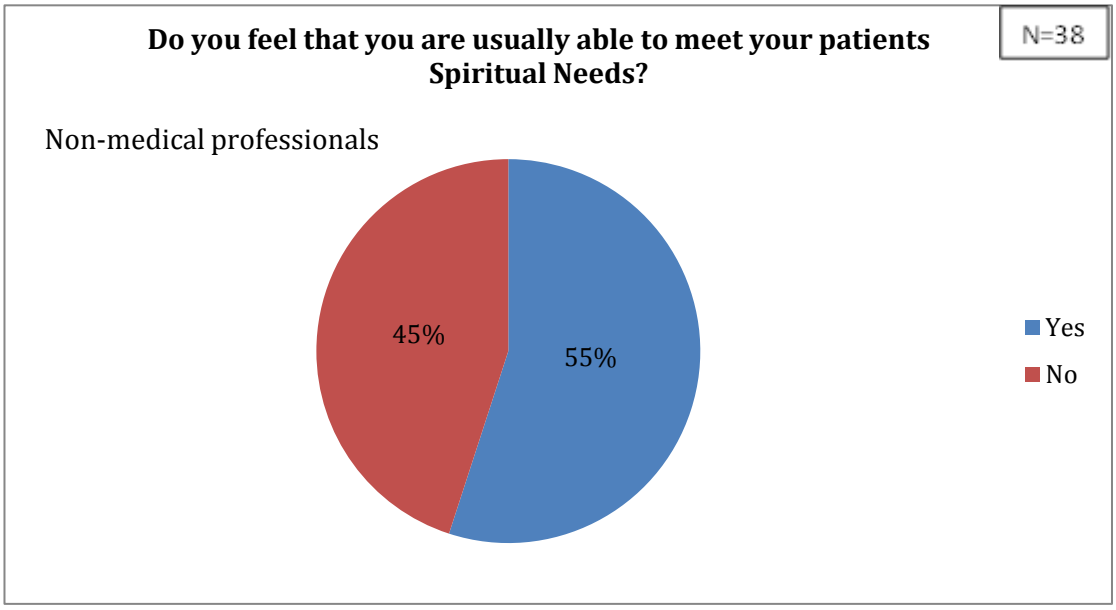
All 38 non-medical professionals stated that they had encountered patients with spiritual needs in their clinical practice. The survey respondents were then asked to identify the source of information through which they were able to recognise the spiritual care needs of their patients. The distribution of sources was similar to the medical professionals see fig 4.19 and 4.22. Patients themselves (n = 35; 92%) and their family/friends (n = 17; 45%) were the major source. The spiritual needs were also identified during the course of their medical consultation by 71% (n = 27) of the respondents. Nurses and religious leaders were the source only for a small proportion.

Fig. 4.22: Source of information on spiritual needs of patients for non-medical professionals



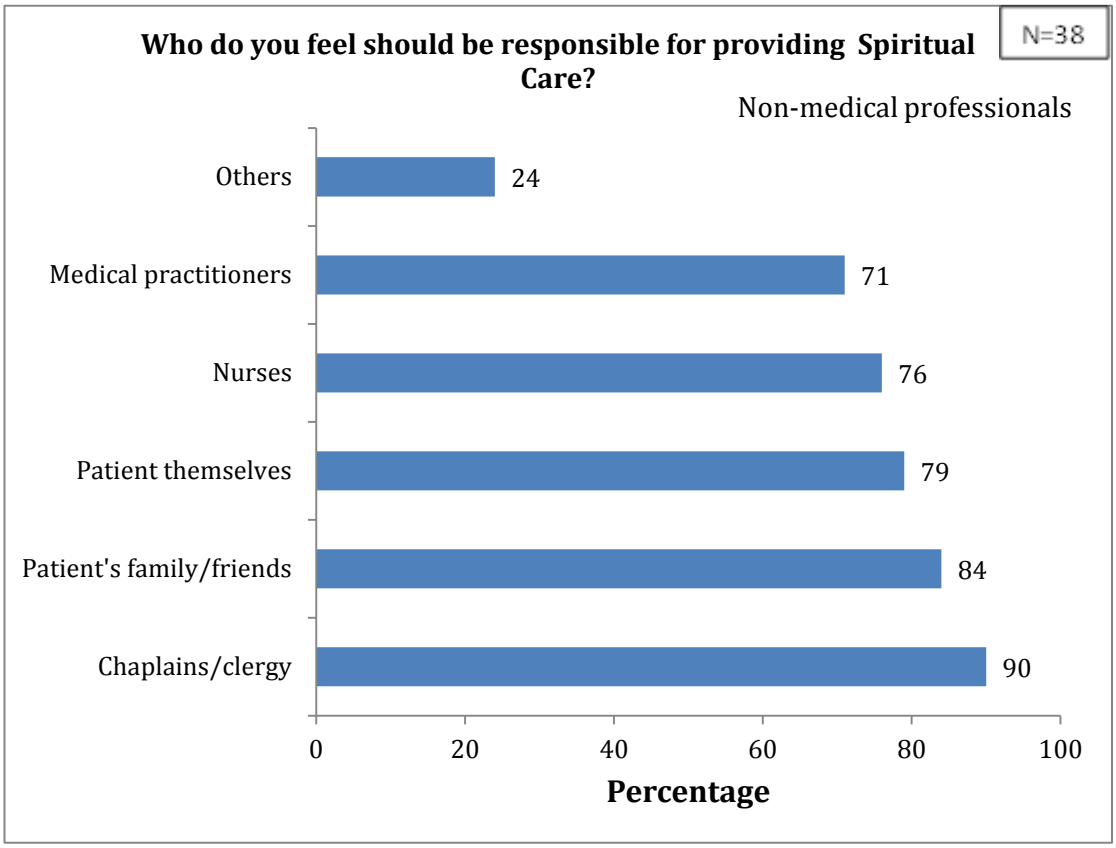
When the non-medical practitioners were questioned on their ability to meet their patients' spiritual needs, 55% (n = 21) responded that they were able to meet the requirements either partly of completely for their patients. This finding is also similar to the data for the medical professionals. See Fig 4.23 and 4.20.

Fig. 4.23: Do you feel that you are usually able to meet your patients' spiritual needs?



Lastly, the non-medical practitioners were questioned on their perceptions as to who should be responsible for providing spiritual care for their patients. The participants gave a variety of responses. Chaplains or clergy were the preferred people by almost all respondents (90%, n = 34) for provision of spiritual care while patients' family/friends and patient themselves were the preferred by nearly 80% (n = 30) of the respondents. Among the healthcare providers, nurses and medical professionals were also considered to be responsible for the provision of spiritual care by a large proportion of participants (76%, n = 29, and 71%, n = 27, respectively). A multidisciplinary team approach was preferred by a small group of respondents. Not surprisingly, the proportions of preferred spiritual care providers were similar to the data from medical professionals. See Fig 4.21 and 4.24.

Fig 4.24: Who do you feel should be responsible for providing spiritual care?



The next section describes the details of scores from the spirituality and spiritual care scale for both cohorts i.e. the medical and non-medical professionals.

4.4 Spirituality and spiritual care rating scale

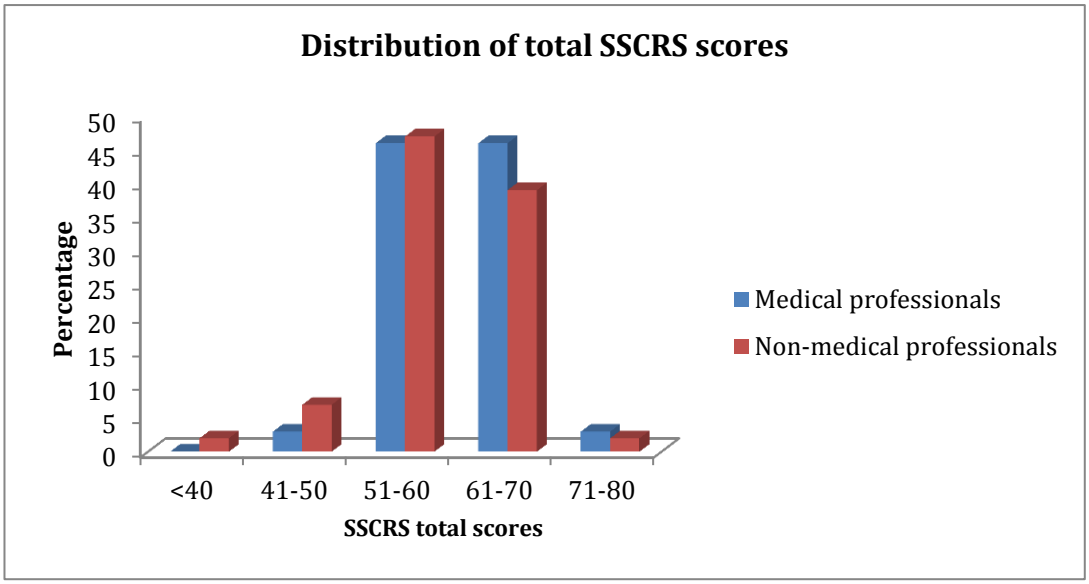
This section describes results of the rating scale that was incorporated within the survey questionnaire. Using the spirituality and spiritual care rating scale (SSCRS), perceptions and attitudes of the respondents were evaluated. The scale had two components – respondents' understanding of spirituality, and their perceptions on spiritual care. Based on the responses in the Likert scale (1-5), two different scores were calculated – total SSCRS score and spiritual care score. The total SSCRS score was calculated using all the 17 items while spiritual care score was calculated using

just six items. The fundamental aspects of spirituality in the SSCRS are detailed in Appendix (see Appendix I and II).

4.4.1 Total SSCRS scores

Figure 4.25 shows the distribution of total scores for all respondents. The mean total score for medical professionals was 60.6 with SD 5.4 and range 49-74 while for non-medical professionals, the mean score was 59.4 with SD 6.7 and range 39-76. The scores were not statistically different between the two groups of respondents ($p>0.05$).

Fig 4.25: Distribution of Total SSCRS scores



The results from the survey showed that both medical and non-medical professionals had a general opinion of spirituality without limiting it to religion and a God dimension. However, the medical and non-medical professionals differed in one aspect – "need to forgive and to be forgiven". Of the medical professionals, 47% (N=29) 'agreed or strongly agreed' with the statement while the majority of non-medical professionals chose 'uncertain' (n=16, 42%) and 'disagree' or 'strongly

disagree' (n=15; 39%) as their response. As shown in Tables IV and V the remaining responses were similar between the two groups of respondents.

Table IV: Spirituality aspects from SSCRS – medical professionals (N=61)

	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
c) I believe spirituality is concerned with a need to forgive and a need to be forgiven	2	3	6	10	24	39	**25**	**41**	**4**	**6**
d) I believe spirituality involves only going to Church/Place of Worship	**28**	**46**	**31**	**51**	1	1.5	1	1.5	0	0
e) I believe spirituality is NOT concerned with a belief and faith in a God or Supreme Being	1	1.5	13	21	17	28	**25**	**41**	**5**	**8.5**
f) I believe spirituality is about finding meaning in the good and bad events of life	0	0	3	5	12	20	**40**	**65**	**6**	**10**
i) I believe spirituality is about having a sense of hope in life	0	0	2	4	13	21	**36**	**59**	**8**	**13**
j) I believe spirituality is to do with the way one conducts one's life here and now	0	0	4	7	8	13	**41**	**67**	**8**	**13**
l) I believe spirituality is a unifying force which enables one to be at peace with oneself and the world	2	3	7	12	11	18	**33**	**54**	**8**	**13**
m) I believe spirituality does NOT include areas such as music, art, creativity and self-expression	1	1.5	6	9.5	7	12	**37**	**60**	**10**	**17**
o) I believe spirituality involves personal friendships, relationships	0	0	8	13	13	21	**33**	**54**	**7**	**12**
p) I believe spirituality does not apply to Atheists or Agnostics	**16**	**26**	**30**	**50**	10	17	5	8	0	0
q) I believe spirituality includes peoples' morals	0	0	6	10	11	18	**39**	**64**	**5**	**8**

Bold – Responses with majority views highlighted in bold

Table V: Spirituality aspects from SSCRS – non-medical professionals (N=38)

	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
c) I believe spirituality is concerned with a need to forgive and a need to be forgiven	**3**	**8**	**12**	**31**	**16**	**42**	5	13	2	5
d) I believe spirituality involves only going to Church/Place of Worship	**22**	**58**	**15**	**40**	0	0	0	0	1	2
e) I believe spirituality is NOT concerned with a belief and faith in a God or Supreme Being	3	8	12	32	9	24	13	34	1	2
f) I believe spirituality is about finding meaning in the good and bad events of life	0	0	2	5	6	16	**21**	**55**	**9**	**24**
i) I believe spirituality is about having a sense of hope in life	0	0	5	13	7	18	**21**	**55**	**5**	**13**
j) I believe spirituality is to do with the way one conducts one's life here and now	0	0	3	8	8	21	**21**	**55**	**6**	**16**
l) I believe spirituality is a unifying force which enables one to be at peace with oneself and the world	1	2.5	3	8	6	16	**17**	**45**	**11**	**29**
m) I believe spirituality does NOT include areas such as music, art, creativity and self-expression	1	2.5	1	2.5	2	5	**19**	**50**	**15**	**40**
o) I believe spirituality involves personal friendships, relationships	0	0	0	0	9	24	**22**	**58**	**7**	**18**
p) I believe spirituality does not apply to Atheists or Agnostics	**17**	**45**	**19**	**50**	2	5	0	0	0	0
q) I believe spirituality includes peoples' morals	1	2.5	1	2.5	9	24	**24**	**63**	**3**	**8**

Bold – Responses with majority views highlighted in bold

4.4.2 Spiritual care scores

Using the six questions within the SSCRS that represent spiritual care (see appendix III), individual spiritual care score was calculated. A low score indicates that the respondents do 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 indicates that respondents believe that medical practitioners may be able to play a major role in the provision of spiritual care to their patients.

The minimum possible score is 6 and a maximum possible score of 30. Mean value of the spiritual care rating score was 20.7 (S.D. 2.4) for the medical professionals with a range of 15-26. For the non-medical professionals, there was a wider distribution of the spiritual care score with a mean value of 21.15 (S.D. 3.1) and range of 9-27. The distribution of the scores for each question is shown in Tables VI and VII, and total scores in figure 4.26. The scores were not statistically different between the two groups of respondents (p=0.42).

Fig 4.26 Distribution of spiritual care scores

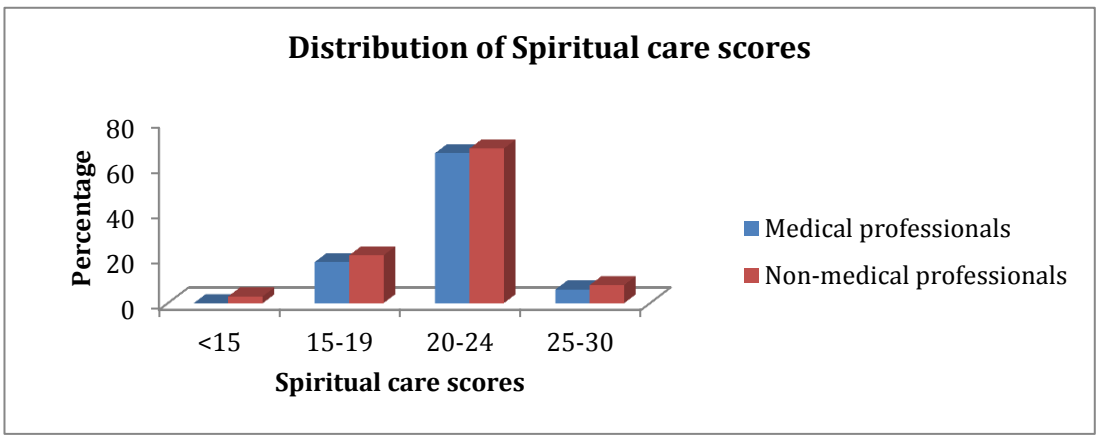


Table VI: Spiritual care aspects from SSCRS

Spiritual care aspects from SSCRS – medical professionals (N=61)	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
a) I believe medical practitioners can provide spiritual care by arranging visit by the hospital Chaplain or the patient's own religious leader if requested	1	1.5	1.5	1	3	5	**42**	**69**	**14**	**23**
b) I believe medical practitioners can provide spiritual care by showing kindness, concern and cheerfulness when giving care	0	0	2	3	7	12	**33**	**55**	**19**	**32**
g) I believe medical practitioners can provide spiritual care by spending time with a patient giving support and reassurance especially in time of need	2	3.5	1	1.5	5	8	**42**	**69**	**11**	**18**
h) I believe medical practitioners can provide spiritual care by enabling a patient to find meaning and purpose in their illness	**1**	**1.5**	**6**	**10**	**10**	**16**	**39**	**64**	**5**	**8.5**
k) I believe medical practitioners can provide spiritual care by listening to and allowing patients the time to discuss and explore their fears, anxieties and troubles	0	0	5	8.5	4	6.5	**41**	**67**	**11**	**18**
n) I believe medical practitioners can provide spiritual care by having respect for privacy, dignity and religious and cultural beliefs of a patient	0	0	0	0	2	3	**44**	**72**	**15**	**25**

Bold – Responses with majority views highlighted in bold

Table VII: Spiritual care aspects from SSCRS

Spiritual care aspects from SSCRS – non-medical professionals (N=38)	Strongly disagree		Disagree		Uncertain		Agree		Strongly agree	
	N	%	N	%	N	%	N	%	N	%
a) I believe medical practitioners can provide spiritual care by arranging visit by the hospital Chaplain or the patient's own religious leader if requested	0	0	1	2.5	3	7.5	**29**	**76**	**5**	**14**
b) I believe medical practitioners can provide spiritual care by showing kindness, concern and cheerfulness when giving care	2	5	5	13	4	10	**17**	**45**	**10**	**26**
g) I believe medical practitioners can provide spiritual care by spending time with a patient giving support and reassurance especially in time of need	0	0	2	5	6	7.5	**20**	**52**	**10**	**26**
h) I believe medical practitioners can provide spiritual care by enabling a patient to find meaning and purpose in their illness	**0**	**0**	**11**	**29**	**7**	**18**	**16**	**42**	**4**	**10**
k) I believe medical practitioners can provide spiritual care by listening to and allowing patients the time to discuss and explore their fears, anxieties and troubles	0	0	2	5	2	5	**23**	**60**	**11**	**29**
n) I believe medical practitioners can provide spiritual care by having respect for privacy, dignity and religious and cultural beliefs of a patient	2	5	2	5	0	0	**17**	**45**	**17**	**45**

Bold – Responses with majority views highlighted in bold

4.4.3 Factors associated with spiritual care scores

Comparison between the two cohorts of medical and non-medical professionals with respect to their spiritual care scores was performed using the chi-square test to identify any factors that were associated with high spiritual care scores.

Table VIII: Participant's spiritual care (n=107)

Mean (SD) are shown; *p* values are based on two-sample independent *t* test

Parameter	**Spiritual care [Mean (SD)]**			**p value**
	Overall (n=107)	Medical professionals (n=69)	Non-medical professionals (n=38)	
Overall	20.9 (2.7)	20.7 (2.4)	21.2 (3.1)	0.42
Sex				
Male	20.5 (2.2)	20.3 (2.2)	22.0 (2.2)	0.15
Female	21.1 (2.9)	21.1 (2.6)	21.1 (2.6)	0.92
Age, y				
<40	21.0 (2.5)	20.6 (2.2)	23.4 (3.0)	0.02
40-49	21.5 (2.1)	21.6 (2.1)	21.4 (2.1)	0.90
50-59	20.2 (3.3)	20.3 (3.0)	20.2 (3.5)	0.97
60+	20.5 (2.8)	19.2 (2.7)	21.7 (2.7)	0.16
Working hour				
Part time	21.3 (2.4)	21.3 (2.3)	21.4 (2.7)	0.91
Full time	20.7 (2.8)	20.5 (2.5)	21.1 (3.3)	0.34
Place of work				
Public	21.0 (2.3)	21.0 (2.3)	21.1 (2.7)	0.85
Private	21.0 (2.3)	20.3 (2.7)	22.0 (1.2)	0.29
Both	20.8 (2.6)	20.5 (2.5)	21.6 (3.0)	0.29
Other	20.3 (5.1)	-	20.3 (5.1)	-
Oncology experience, y				
<=5	21.2 (2.5)	20.7 (2.3)	22.9 (2.7)	0.03
6-10	21.5 (2.4)	21.8 (2.3)	21.0 (2.8)	0.57
11-25	20.8 (2.1)	20.4 (2.1)	21.1 (2.0)	0.31
25+	19.9 (3.9)	20.1 (3.3)	19.8 (4.7)	0.86
Religion				
No	20.4 (3.1)	20.2 (2.1)	20.6 (4.0)	0.67
Yes	21.2 (2.4)	21.0 (2.5)	21.6 (2.2)	0.33
Type of religion				
Christianity	21.3 (2.5)	21.1 (2.6)	21.6 (2.3)	0.43
Other	20.8 (2.0)	20.3 (1.6)	23.0 (2.8)	0.09
Practice religion				
No	21.4 (1.8)	20.9 (1.8)	22.3 (1.5)	0.11
Yes	21.1 (2.7)	21.0 (2.8)	21.3 (2.5)	0.75

Spiritual care scores were statistically significantly (p = 0.02) higher for young non-medical professionals with oncology experience less than or equal to 5 years (p = 0.03). None of the other characteristics was significantly associated with high scores for medical or non-medical professionals.

A multivariate simple linear regression model with confounder variables for medical professionals identified that gender, training in spiritual care and affiliation with religion predicted a high spiritual care score. While, increasing age and number of years of experience in oncology predicted a spiritual care score. See table below and actual model in appendix. A linear regression model was not created for non-medical professionals due to small sample size. See table VIII. For detailed model, see Appendix IV.

Table IX: Multivariate linear regression (spiritual care score vs group with confounders) N = 61

Spiritual care score	**Coefficient**	**Standard Error**
Gender	0.896	0.639
Training	0.495	0.743
Age group (<40yrs)		
40-49yrs	1.300	0.985
50-59yrs	0.940	1.610
60+yrs	0.158	1.826
Religion	0.716	0.662
Oncology experience (<5yr)		
6-10 yrs	0.775	0.962
11-25yrs	1.280	1.254
25+yrs	1.032	1.752

Next, the respondents' ability to meet spiritual care needs was assessed. This analysis was not originally planned in our statistical analysis. Since a large proportion of the respondents (n = 47; 44%) perceived that they were able to meet the spiritual care needs of their patients either partly or fully, a decision was made to explore further to identify if any demographic variables predicted their affirmative response of ability

to meet spiritual care needs.

4.4.4 Self-perceived ability to meet spiritual care needs

A univariate analysis was performed to identify any characteristics correlates with self-perceived ability to meet spiritual care needs of their patients. Although there was a higher proportion of non-medical professionals (n= 21 out of 38; 55%) who perceived themselves to meet the spiritual care needs than medical professionals (n= 26 out of 69; 49%), there was no statistically significant difference (p = 0.32) between the two groups. None of the characteristics tested (age, gender, working hours, place of work, experience in oncology, religion, practicing religion or type of religion) were individually associated with self-perceived ability to meet their patients' spiritual needs. See table X.

However, it is important to note that these univariate and multivariate analyses were performed in a small sample size of respondents. The results are hypothesis generating and should be considered with caution due to the limitation of low power from the small sample size.

Table X: Participant's perception on able to meet spiritual care (n=46)

	Able to meet N (%)			p value
	Overall (n=47)	Medical professionals (n=26)	Non-medical professionals (n=21)	
Sex				
Male	12 (36.4)	10 (34.5)	2 (50.0)	0.55
Female	35 (55.6)	16 (55.2)	19 (55.9)	0.96
Age, y				
<40	10 (34.5)	9 (37.5)	1 (20.0)	-
40-49	15 (55.6)	8 (44.4)	7 (77.8)	0.10
50-59	15 (51.7)	6 (54.6)	9 (50.0)	0.81
60+	7 (63.6)	3 (60.0)	4 (66.7)	-
Working hour				
Part time	13 (52.0)	9 (52.9)	4 (50.0)	0.89
Full time	34 (47.9)	17 (41.5)	17 (56.7)	0.21
Place of work				
Public	21 (42.9)	12 (40.0)	9 (47.4)	0.61
Private	8 (80.0)	5 (83.3)	3 (75.0)	0.75
Both	13 (43.3)	9 (40.9)	4 (50.0)	0.66
Other	5 (71.4)	-	5 (71.4)	-
Oncology experience, y				
<=5	15 (48.4)	10 (43.5)	5 (62.5)	0.35
6-10	7 (46.7)	4 (40.0)	3 (60.0)	-
11-25	15 (46.9)	6 (37.5)	9 (56.3)	0.29
25+	10 (55.6)	6 (66.7)	4 (44.4)	0.34
Religion				
No	13 (36.1)	6 (31.6)	7 (41.2)	0.55
Yes	34 (56.7)	20 (51.3)	14 (66.7)	0.25
Type of religion				
Christianity	31 (59.6)	18 (54.6)	13 (68.4)	0.33
Other	3 (37.5)	2 (33.3)	1 (50.0)	-
Practice religion				
No	7 (38.9)	3 (27.3)	4 (57.1)	0.21
Yes	27 (64.3)	17 (60.7)	10 (71.4)	0.50

Numbers (percent) are shown; p values are based on Chi-square test. Missing p values are due to small numbers.

A multivariate logistic regression model with confounder variables for medical professionals identified that women (odds ratio - OR 3.0), prior training in spiritual care (OR – 1.48), increasing age (OR – 2.4 to 8.6 depending on the age group) and

affiliation with religion (OR 2.35) were strongly associated with the respondents' ability to provide spiritual care. However, the variable "number of years of experience in oncology" negatively affected their ability to meet the spiritual care needs. Importantly, the 95% confidence intervals for all the calculated odds ratios were wide and included one, making them not significant statistically. See table XI below. For the detailed model, see Appendix V. A logistic regression model was not created for non-medical professionals due to the small sample size.

Table XI: Logistic regression with confounders for medical professionals

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 (<5yr)		
6-10	0.77 1.300897	0.13 - 4.63
11-25	0.20 0.9403809	0.02 - 1.97
25+	0.47	0.02 - 11.21

In the following section, the content analysis of responses to qualitative question is presented.

4.5 Analysis of responses to qualitative questions

In this section of the chapter, analysis of data from the free-text qualitative questions is presented. There were four questions providing options for free responses from the respondents. Content analysis was performed on the responses provided. Table XII

below summarises this data analysis, shows the number of responses and content of these responses. Some of the responses had more than one issue identified.

Table XII: Overview of the key concepts identified in the content analysis of qualitative questions in the survey (N= 107)

Question 1 **Able to meet your patients' spiritual needs**	N = 46 responses
Role	
- Not my role	30
- Partly my role	10
- It is my role	6
Lack of time	17
Lack of training/education	14
Referral to others	11
Miscellaneous	
- Religious focus	4
- Avoiding conflict	3
Question 2 **Sufficient training on matters concerning spiritual care**	N= 16 responses
Not sure	6
May learn through oneself	4
No training	3
Others	3
Question 3 **Who should be responsible for providing education on spiritual care**?	N = 10 responses
Formal education through university/college	4
Peer learning	2
By doing	2
Others	2
Question 4 **Who should be responsible for providing spiritual care?**	N = 23 responses
Allied health professionals	11
Someone experienced/trained	6
Specific team members	
- Psychologists/Counsellors	3
- Pastoral care	3

For the question, "do you feel that you are usually able to meet your patients' spiritual needs?" there were 46 responses to this question. Most of the respondents (30 out of 46) perceived that it was not their role to provide spiritual care. Some of the statements made include:–

- *"I do not believe it is my role" (Participant 17)*
- *"I also believe that it is not my role to be 'all things to all people' within the framework of the clinical practice timelines" (Participant 33)*
- *"not role as doctor" (Participant 113)*
- *"role of palliative care team" (Participant 94)*
- *"should it be part of palliative care" (Participant 117)*
- *"focusses what can be done on a physical situation" (Participant 103)*
- *"a specialised skill set is required" (Participant 80)*
- *"I believe that it is difficult for many people to meet spiritual needs when the patient is from a different belief system than their own" (Participant 114)*
- *"I'm not convinced that spiritual care is necessary or useful" (Participant 30)*

For this question, the remaining 16 respondents acknowledged that provision of spiritual care is their role.

The other common themes, especially "lack of time" and "lack of training" were perceived strongly by the respondents. Examples of some of the quotes from the respondents include:

- *"Time constraints can restrict extent to which this is feasible" (Participant 64)*
- *"not enough time of contact" (Participant 117)*
- *"Spiritual needs are ongoing and constantly evolving; it's not as it there is an end point" (Participant 39)*
- *"time does not always permit to" (Participant 80)*

When asked if, "do you feel medical practitioners receive sufficient training on matters concerning spiritual care?", there were 16 responses, most of whom indicated that they did not understand the meaning of spiritual care which stems from lack of clear training. One example of this is *"Medical staff should see themselves as therapeutic instruments"* (Participant 91). However, one of the respondents stated

that *"I am not convinced if spiritual care is necessary or useful"* (Participant 30) while another replied *"not sure it is relevant to be an effective and caring oncologist"* (Participant 42). On the contrary, another participant responded with *"what's required is more encouragement to consider this aspect of care and discussion amongst colleagues"* (Participant 96). One respondent wrote *"I do not have sufficient training"* (Participant 114) while another lamented that medical education had *"too much focus on doing rather than being"* (Participant 119).

For the question on who should be responsible for providing education on spiritual care to medical practitioners, only ten people responded.

- *"You can lead a horse to water…everyone for themselves. Those who will benefit will do it, those who would benefit more won't do it, and won't listen/attend if made to" (Participant 13)*
- *"colleagues" (Participant 96)*
- *"specialty college" (Participant 33)*
- *"this should be the responsibility of the group (formal religion or otherwise) that encourages spiritual growth in the oncologist" (Participant 85)*

Formal education, peer learning and learning by doing were the suggestions for how they learnt about spiritual care. An example was *"seeing others do it will make it more acceptable for junior registrars and residents to embark on"* (Participant 10). However, there were scepticisms as well, with one saying *"students have enough to learn about to get over the line as it is"* (Participant 13).

For the question, "who do you feel should be responsible for providing Spiritual Care?" there were no consistent responses identified. The responses varied from only one person in the team like chaplains, counsellors or psychologists to everyone's responsibility.

- *"The whole multidisciplinary team" (Participant 44)*
- *"Spiritual care should be delivered by someone experienced/trained" (Participant 86)*

- *"Anyone who has the courage and the skills to go there" (Participant 84)*
- *"Responsibility is no one's and everyone's" (Participant 10)*
- *"Nurses and clinicians should not be responsible for providing this care, but should know to assess for need and refer when appropriate" (Participant 13)*
- *"I believe as an individual that we can meet some of the spiritual needs of the patient, but that these needs are not usually met by one person alone. these needs are met by everyone the patient comes across" (Participant 14)*

4.6 Conclusion

In summary, Australian oncologists and oncology trainees described their perceptions and attitudes towards spiritual care in clinical practice and their preparedness to meet the spiritual needs of their patients in the survey. Most (84%) of the respondents identified that they have encountered patients with spiritual needs in their clinical practice. However, there were conflicting responses on who should provide spiritual care - a large majority (70%) agreed that a medical practitioner should be involved in the provision of spiritual care in some form or other, while 65% (n=30 out of 46) responding to the qualitative questions, expressed that they did not think it is their role to be involved in the provision of spiritual care. Lack of time, lack of training and having a poor understanding of spiritual care were the most common perceived barriers by the oncologists and trainees for the provision of spiritual care to their patients. Despite a small proportion (only 7%) 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 meet their patients' spiritual care needs.

Chapter V: Discussion

This chapter provides a discussion on the interpretation of the responses provided by the participants of the administered online survey. Studies of this nature focussing on oncologists have not been previously reported from Australia. There is no published study on Australian oncologists' spirituality and their ability to provide spiritual are to their patients. However, several such studies have been reported from North America and Europe (Balboni et al., 2013; Balboni et al., 2014; Balboni et al., 2010; Kristeller et al., 1999; McSherry et al., 2002; McSherry & Jamieson, 2011; Meredith & O'Shea, 2007). This current study is the first of its kind to evaluate spiritual issues related to practising Australian oncologists and trainees. The only other Australian study of similar nature was reported by Fisher and Brumley (2012) who surveyed palliative care physicians from Australia and New Zealand.

The current survey respondents described their perceptions and attitudes towards spiritual care in clinical practice and their preparedness to meet the spiritual needs of their patients. This study demonstrated that the Australian healthcare professionals, especially, oncologists and oncology trainees, felt that they were not sufficiently trained 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 (Balboni et al., 2011; Balboni et al., 2014; Balboni et al., 2007; Cetinkaya, 2013; Chibnall et al., 2004; Curlin et al., 2005; Ecklund et al., 2007; El Nawawi et al., 2012; Lee & Baumann, 2013; Luckhaupt et al., 2005; McSherry & Jamieson, 2011).

Most (84%) of the medical professional respondents in the current study identified that they had encountered patients with spiritual needs in their clinical practice, and a large majority (70%) agreed that a medical practitioner should be involved in the provision of their patients' spiritual care in some form or another. However, in contrast, among those who responded to the qualitative questions, a large proportion (n=30 out of 46; 65%) expressed that they did not think it is their role to be involved in the provision of spiritual care. Furthermore, despite a small proportion (only 7%) of the medical professionals having had sufficient education on spiritual care during their professional training, 45% of the medical practitioners felt they were able to meet their patients' spiritual care needs. In the following discussion, these interesting results will be interpreted. This raises concern about people's confidence to provide spiritual care in the absence of appropriate education and training.

5.1 Spiritual care in clinical practice

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 inter-disciplinary approach with inputs from oncology professionals, chaplains and others with strong support from the local institutional and government agencies (Puchalski et al., 2009; Surbone & Baider, 2010). Various authors have agreed that the main role of healthcare professionals is to recognise that their patient/client has unmet spiritual needs by performing a spiritual assessment, and to then refer to a spiritual advisor such as a chaplain or pastoral care professional (Ferrell, 2007; Puchalski et al., 2009). The minimum role for a medical practitioner may be to recognise spiritual issues and refer to

appropriate professionals. 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.

Previous studies have established that spiritual care is infrequently provided by medical professionals, even for patients with advanced terminal illnesses or end of life (Astrow et al., 2007; Balboni et al., 2013; Balboni et al., 2010; Balboni et al., 2007; Phelps et al., 2012). The majority of the participants (84% of the medical professionals and all of the non-medical professionals) responding to the survey indicated that they have **encountered patients with spiritual needs** in their clinical practice. This implies that the healthcare providers were able to recognise 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. The need for spiritual care for their patients was recognised by the survey respondents through various means, including **patients themselves bringing it up during consultation** or from their families/friends. Other health professionals, such as colleagues in the multi-disciplinary team or referring doctors/nurses, were uncommon source of information about the spiritual needs of patients. The survey questionnaire did not ask for the method the respondents used to identify the spiritual needs of patients. Previous research has shown that it is unlikely that most of the practising oncologists use any form of spirituality assessment tool (Ferrell, 2007). However, patient interviews or consultations in oncology care often involve discussion on existential concerns, that may bring forth casual statements by patients on faith or spiritual practices, which may uncover spiritual care needs. Therefore, this issue identified by the respondents in the current study highlights the need for good communication skills required to recognise the spiritual needs of patients as

well the possible use of spiritual assessment tools to capture every patient's views and their spiritual needs.

Almost half (45%) of the medical professionals in the present study, perceived 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 focus on the barriers to provision of spiritual care. Thirty out of 46 (65%) of the respondents to be open text response thought that it is **not their role** to provide spiritual care. In contrast, one of the largest surveys of nurses from the United Kingdom reported that only 4.3% of the nurses felt that it was not their role to identify spiritual needs (McSherry & Jamieson, 2011). Interestingly, in the current study, when a direct question was asked to the respondents on who should be responsible for the provision of spiritual care, almost 70% (see fig 4.20) 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 (Bennett & Thompson, 2015). Such confusion often arises due to lack of proper understanding of the meaning of spiritual care and spirituality.

The majority (more than 90%) of the total sample of respondents agreed that chaplains or clergy should provide spiritual care. Moreover, the respondents were willing to **refer to the spiritual care providers** if they identified any spiritual care

needs in their patients. The responsibility may be aptly summarised by these some of the qualitative responses identified in the survey –

- *"no one's and everyone's [responsibility]" (participant 10)*
- *"the clinician should not be responsible for providing this care, but should know to assess for need and refer when appropriate" (participant 13)*
- *"I believe as an individual that we can meet some of the spiritual needs of the patient, but that these needs are not usually met by one person alone – these needs are met by everyone the patient comes across" (participant 14).*

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 (Astrow et al., 2007; Balboni et al., 2013; Balboni et al., 2010; Ferrell, 2007; Peteet & Balboni, 2013; Vermandere et al., 2011). This finding of lack of time is consistent with my personal experience as an oncologist in a cancer centre that provides care to over a thousand new patients every year. 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, as previously discussed in chapter II, the use of short spiritual assessment tools such as FICA (Faith/Beliefs, Importance, Community, Address in care or action), HOPE (Hope, Organised religion, Personal spirituality, Effects of care and decisions), and SPIRIT (Spiritual belief system, Personal Spirituality, Integration, Rituals/restrictions, Implications, and Terminal events) may be an opportunity to identify major spiritual needs prior to a referral to spiritual care practitioners (Fitchett, 2012) in an expedite manner. 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 the perceived 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. Section 5.2 discusses issues around training on spiritual care identified from the current study and placed in context to the previously published literature on similar issues.

5.2 Education on spiritual care

In the current study, 25% (n=17) of the medical professionals believed that they had some training in spiritual care either during undergraduate or post-graduate courses, or after becoming a practising consultant. However, only five (7% overall) indicated that they have received **sufficient training** on matters concerning spiritual care. These five respondents indicated that they chose to do additional studies (beyond their preparatory education) in this area due to their personal interests.

A national United States physician survey reported that 23% of physicians received spiritual care training in 2003 (Rasinski et al., 2011), while another recent survey from the United States reported 12 to 14% of oncologists had received training in spirituality and religion (Balboni et al., 2013). The proportion of Australian oncologists in the current study who have received **adequate training in spiritual care** was much lower than what United States physicians reported, but not dissimilar

to the US oncologists. Such a low proportion is not entirely unexpected due to the following reasons:

1. Despite the perceived benefits for the patients and the healthcare professionals, to my knowledge, there has been no published information on the inclusion of components of spirituality in the curriculum for oncology trainees either in Australia or other countries.
2. In Australian universities, spiritual care subjects are often taught as part of nursing, palliative care and indigenous health courses, but not for medical students. In contrast, in the United States, the American Association of Medical Colleges have agreed to incorporate spirituality in the medical curriculum, with more than 100 medical schools providing education on religion and spirituality related to medicine (Puchalski et al., 2012, p417-427).
3. Only recently, two Australian universities have started offering courses on spirituality. University of Sydney started in 2009 (Puchalski et al., 2012, p425), while University of Western Australia commenced in 2014 (Bennett, 2014). Both universities have an elective student selected component during the under-graduate medical program. An important note in this regard, is that for this present study the respondents of the survey were post-graduate oncology trainees or practising oncologists, and as such they would have graduated from their medical schools well before these two Australian universities started providing courses on spirituality.
4. In Australia, the mainstream medical care providers and government organisations that care for cancer patients strongly follow the bio-psycho-social model of care. Holistic care that incorporates spirituality and spiritual

care is not yet fully endorsed or supported by the professional oncology societies or by the developers of oncology curriculum. To highlight this issue, the current study was found to be ***"too sensitive and lacking in relevance to the oncology profession"*** by one of the professional associations when approached for sending the survey request to its members through personal emails. Although the Australian palliative care curriculum for medical specialists incorporates educational modules on spiritual care, most of the oncologists and trainees (who were the respondents of the survey) do not undergo mandatory studies on palliative care.

5. A previous review (Lucchetti et al., 2012) on spirituality courses provided in medical schools around the world, found that there was limited research information available outside the United States and Canada, especially from countries like Australia. Although 28% of the medical professionals who responded to the current survey graduated from overseas medical schools (outside Australia), an exploratory statistical analysis of the survey data to identify the impact of overseas training on spiritual care was not performed due to small sample size.

Given this thesis was undertaken for a medical education qualification it was important to ascertain further specific information in relation to education. Another important question in the survey was about the **optimal method** and **timing of teaching** various aspects of spiritual care to medical professionals. The best format of educating medical professionals on dealing with spiritual care needs of their patients may be difficult to define due to the abstract nature of spirituality. When asked about the format of education on spiritual care, the survey respondents did not present a consistent preferred format. Most respondents identified **self-learning** or

learning on the job as the most common referred format, over didactic lectures and case-based discussions.

In line with the general principles of under-graduate medical education described by Dent et al (2013), content on spirituality and spiritual care can be delivered by various learning situations such as lectures, case-based small group discussion, communication skills workshops, bedside and ambulatory teaching and peer-assisted education. Learning strategies such as self-directed learning, problem-based learning, inter-professional learning and student-selected components within the curriculum could be employed for optimal training as explained by Dent and Harden (2013). An ideal curriculum should also incorporate assessment strategies (Cholerton & Jordan, 2005). It can be speculated that for matters related to spirituality and spiritual care, like assessment in other components of medical education (Epstein, 2007), a work-based assessment approach or 360 degree assessment with observation by peers, patients and other members of healthcare team, along with self-assessment may provide valuable insight into the performance of the learner.

Puchalski et al (2012, p417-427) have demonstrated that medical curriculum around the world incorporate education on spirituality in health as a **student-selected elective component**, using the sensitive nature of the topic as a justification for this. Even the recently introduced course of education on spirituality for medical students at the University of Western Australia has been made an elective component of the program. If spiritual assessment is to be valued and performed for all patients seen by medical practitioners, then topics on spirituality should be **integrated into the medical curriculum**. Some medical schools have successfully implemented spiritual history-taking and other components of spirituality in their curriculum (King et al.,

2004; Puchalski, 2006). This at least is a good start to address this deficit in medical education.

Published literature on medical curricula also suggest that spirituality and spiritual care may be better delivered by a process-oriented method especially with clinical focus (Awaad et al., 2014). One of the model courses on spirituality for medical students is delivered at George Washington University School of Medicine and Health Sciences in the United States, where the spirituality content is **vertically integrated** into the curriculum so that it is part of the whole patient care spread over four years (Puchalski et al., 2012, p417-427). This is something we can currently aspire to in Australia.

In the current Australian scenario, where there is no mandatory formal education and training in the area of spirituality and spiritual care, a **problem-based self-directed learning strategy** (Barrows, 1983; Musick et al., 2003; Onyon, 2012) may serve an important role for the oncology trainees and practising oncologists who intend to be educated in the concepts surrounding spirituality. The famous principles of adult learning put forward by Knowles et al (2012) such as the learners' need to know, self-concept, prior experience, readiness to learn, orientation to learn and the motivation to learn, can also be applied in the context of learning on spirituality for oncologists. It is well understood that adult learners, "*study individually on their own"* and prefer to take "*charge of the learning process"* to keep abreast of the developments (Harden 2005), which would also apply in the field of oncology. Similarly, the CRISIS criteria originally suggested by Harden and Laidlaw (1992) and recently reiterated by Moattari et al (2014) for continuing medical education could be applied to this context of self-education on spiritual care. **CRISIS** stands for

Convenience of place, pace and time, **R**elevance to the needs of the practising doctor, **I**ndividualisation, **S**elf-assessment, **I**nterest, **S**ystematic coverage and **S**peculation. Since this process requires active learning with reflective practice from the motivated learners in an area of controversy, the oncology trainees or practising oncologists would need to immerse themselves deeply to have a good understanding of spirituality and spiritual care. This may allow the learner to be prepared to practice at an optimum skill level required to manage their patients' needs.

The respondents of the survey also stated that they learnt about spirituality "**on the job**". As previously described, cancer care is provided through a multi-disciplinary team with several team members including medical, nursing, and allied health professionals providing comprehensive services to the patients, families and community. Due to this type of collaborative practice working environment, learning about spirituality and spiritual care by medical professionals could occur through **interprofessional education** process. The WHO describes interprofessional education as *"two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes"* (World Health Organization, 2010). Such education and learning occurs in everyday clinical interactions between multiple professionals, often without being recognised as learning. However, the learning point becomes explicit if "*remembered, reflected, reinforced, and explained"* to the team members (Thistlethwaite, 2013 p162). If a multidisciplinary team of professionals provides spiritual care, then it creates opportunities for a collective responsibility of the team members for its optimal delivery. The team members can learn from each other, while at the same time everyone in the team contributing to the best care of the patients.

The **optimal timing** of education on spirituality and spiritual care is unclear. The survey respondents were asked to describe if they received training on spirituality during their preparatory medical qualification, in their post-graduate program or after becoming a practising consultant. Of the 17 who had some form of education on spirituality, for nine people this occurred during their under-graduate pre-qualification period, while for the remaining respondent it was during their post-qualification period. Opportunities exist to provide such education during preparatory qualification studies or post-qualification studies, either at work or college based locations. The respondents' preference on timing of education on spirituality was equally divided between pre-qualification (under-graduate courses) and post-qualification courses, as well as during both periods. Although it is believed that being able to identify spiritual needs of patients is a valuable attribute to have as a medical graduate, education on spirituality and spiritual care should be **provided longitudinally** from the pre-qualification period, through to the post-qualification programs that lead to becoming a practising oncologist. Although most medical schools in the Unites States have incorporated components of spirituality in their pre-qualification curriculum, it has not been uniformly adopted by specialty residency training courses to which most medical professionals enrol to specialise in their respective fields of interest. Family medicine, internal medicine, palliative care and psychiatry specialties seem to offer some components of spiritual care in their training program). In contrast, in Australia, palliative care is the only speciality that seems to offer a training module on spiritual care, which is online through the University of Queensland. The following URL links to this program, and it is evident they use vignettes on fear, love and spiritual care and spiritual needs – (http://www.palliativecare.org.au/Spiritualcare/SpiritualCare.aspx). However, uptake

of education on spirituality in post-graduate training programs other than palliative care has been sparse. There are no such programs on offer specifically for oncology trainees or qualified oncologists. Despite the perceived benefits for the patients and the healthcare professionals, there has been no evident inclusion of components on spirituality in the curriculum for oncology trainees either in Australia or other countries.

5.3 Limitations of the study

As with any other research, there are a number of limitations in the current study. The following are the major limitations of this study:

I. **Small sample size:** The original sample size power calculation based on the provision of spiritual care required was 182. However, the actual number of oncologists and trainees who responded to the survey was only 68. Despite best efforts, it was difficult to recruit the target sample population. During the current study, the several barriers were encountered. The following barriers were identified that needed to be resolved:

    1. MOGA and RANZCR decided not to distribute the survey as individual email invitations to their members. One of the organisations had a policy of distributing survey requests only through their electronic newsletters. However, the other organisation decided not to distribute the survey as the Ethics and Executive committee of the organisation believed that "*many members would find the subject matter sensitive and, lacking in relevance to our secular profession and clinical practice"*. Instead, the web address of the survey with the hyperlink URL was emailed to the

members within the body of a weekly newsletter. The link was not prominently visible within the newsletter, which is likely to have led to few respondents even seeing the survey request.

2. The membership of COSA includes members from multiple specialties including oncologists, nursing and other allied health fields. As the oncologists alone could not been singularly contacted through COSA, the survey questionnaire was sent to all members. Before contacting COSA, there were only 45 respondents (see section 4.1.1). Utilising COSA members resulted in an additional 84 respondents completing the survey (a total of n=129) including 38 people who were not oncologists or trainees. However, responses from non-medical professionals have enriched the data collected and provided an opportunity to compare and contrast responses between medical and non-medical healthcare professionals.

3. Low response rates possibly resulting in unit non-response bias. Bias is defined as a systematic source of error and it can be classified into two categories: 1) bias related to sampling process; and 2) bias related to data collection process (Stec, 2008). Unit non-response bias is a type of bias related to the sampling process that arises from the failure of the chosen samples to respond to the entire survey. The optimal response rate for a survey has not been clearly defined. Using the total membership number from 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 example, a recent survey of oncologists on pain management by Australian psycho-oncology research group had a similar low response rate (Luckett et al., 2014). In the last few years, there has been an increasing number of online surveys being directed towards oncologists, with one author calling it as an "explosion of surveys", leading to many clinicians' deletion such surveys from their email inboxes (Mazzarello et al., 2014).

4. A group of Canadian authors classify surveys that are sent to healthcare providers into three types: 1) surveys from pharmaceutical companies on their products, 2) surveys from academic groups with focus on clinical trials or guidelines for clinical practice and, lastly, 3) surveys from independent investigators like the current study (Mazzarello et al., 2014). These surveys are increasingly being conducted and reported. However, there has been a progressive decline in the response rates to the surveys, especially web-based surveys, despite the growth in multimedia technological advances (Martins et al., 2012; VanGeest et al., 2007). Furthermore, it has been previously established that physicians are a difficult group to recruit for research studies especially for surveys resulting in low response rates (VanGeest et al., 2007).

5. Many potential reasons have been identified for poor responses to surveys. Lack of time from busy clinical practice was the most important reason for low responses to surveys (VanGeest et al., 2007; Wiebe et al., 2012). As reminders have significant positive effect on improving the response rates, a reminder email was sent four weeks after the first

contact (Sierles, 2003). The benefit of providing incentives has conflicting results in reported literature (Burns et al., 2008; Nakash et al., 2006). There were no incentives included in this study to prompt the respondents to complete the survey. Despite best efforts, the final response rate for the medical oncologists and trainees was approximately 10%.

II. **Generalisability:** It is unlikely that the respondents of the survey represent the Australian oncologists and trainees in general. The lack of random selection of participants may have contributed to the possibility that only those motivated and spiritually orientated might have answered the survey request, leading to volunteer bias. Non-response bias may have been created due to the lack of response from people with minimal or no interests in spirituality and spiritual care or research.

III. Although the data was analysed as a comparison between medical and non-medical professionals, a **meaningful comparison** was not possible due to the unplanned data collection for non-medical professionals. Moreover, respondents from radiation oncologists group were small in number and other specialities like haematologists and surgical oncologists who treat patients with cancers were not included in the survey. So, comparison among medical professionals was also not possible.

IV. Minimising other biases: Choi and Pak (2005) catalogued 48 different biases associated with questionnaires including biases in question design, questionnaire design and administration of the questionnaire. Majority of these forms of biases were minimised by using a previously validated

questionnaire for the current study. However, these biases were not completely eliminated, as there were 21 incomplete questionnaires that were not useful for data analysis.

V. All the responses were self-reported online. Therefore the validity and reliability of the responses pertaining to the spiritual care in clinical practice could not be confirmed. However, the majority of the survey addressed the subjective perceptions and beliefs of the respondents. Such studies evaluating subjective issues have the limitations of authenticity of the responses.

VI. Some of the responses to the questions in the questionnaire had missing information. It is unclear if the participants chose not to answer those questions, as they might have perceived them as intrusive, or chose to selectively suppress their responses for social acceptability. However, the surveys were anonymous, thereby potentially reducing the issues of socially acceptable responses.

5.4 Future steps

Based on the results from this study, the following future steps and recommendations are being proposed that could be implemented:

1. Disseminate the results from the survey to the professional organisations so as to recognise the perceived lack of training in the matters concerning spirituality and spiritual care – medical oncology training sub-committee of the Royal Australasian College of Physicians (RACP) and RANZCR – training sub-committee.

2. Urge the professional associations to include aspects of spirituality and health in their respective curriculum.

3. Provide web links to the educational resources on spiritual assessment and spiritual care for the oncology trainees and oncologists to access. The webpages developed and publically made available from the members of Palliative Care Australia (http://www.palliativecare.org.au/Spiritualcare/SpiritualCare.aspx) and the Cancer Australia guidelines (Cancer Australia, 2014) are some of the resource materials readily available for all Australian health professionals .

4. Approach the curriculum committee of the School of Medicine, Flinders University, to consider spiritual care components in the pre-qualification medical school curriculum.

5. Develop a multi-disciplinary training program for spiritual care at Flinders University/Southern Adelaide Local Health Network.

6. Publication in a peer-reviewed journal.

7. Further research on :

    a. Formal evaluation of the curriculum changes with spiritual components, if implemented

    b. Adoption and implementation of spiritual assessment tools in routine oncology practice and

    c. The effectiveness, patient satisfaction and quality of life benefits once spiritual care program is established for patient care.

Conclusion

Driven by the perceived challenges in dealing with spiritual issues of patients with cancer in my current practice as a medical oncologist and my own spirituality, I started exploring the literature in the field of spirituality and health, to help me with tips on patient management. However, the availability of minimal literature in the field of spiritual care and oncologist practice from an Australian context led me to pursue the current research project.

The main research objectives of this study were to explore the current practice, preparedness and prior education of Australian oncologists and oncology trainees on the provision of spiritual care for their patients with cancer. Data were collected through an anonymous online survey using a validated questionnaire tool.

Among the 128 survey respondents, 107 were suitable for data analysis. There were 69 medical professionals with an estimated response rate of 10% for the medical oncologists. Although the survey was directed towards medical professionals, 38 non-medical professionals also responded to the survey due the mixed memberships of one of the organisations through which recruitment occurred. Such a mixed response provided opportunity to explore a subsidiary question of comparison of medical and non-medical professionals.

The survey results were similar between medical and non-medical professionals with respect to the demographics, except for the age and gender distribution. Non-medical professionals were likely to be women and older than 50 years of age when compared to medical professionals. The majority of the respondents (both medical and non-medical professionals) had encountered patients with spiritual care needs in

their clinical practice. Such spiritual needs were often discovered through the patient's themselves during clinic consultations. The respondents also identified that a team approach would be preferable for the delivery of spiritual care with clergy or chaplains along with other professionals. A conflicting pattern emerged regarding the role of medical professionals in spiritual care. Although 70% of the survey respondents identified that medical professionals should be responsible for the provision of spiritual care, the responses to qualitative questions demonstrated that a similar number of respondents believed that it should not be the role of medical professionals.

In their current clinical practice, only 45% of medical professionals perceived that they were partly or completely able to meet the spiritual needs of their patients. None of the demographic factors in an exploratory analysis, correlated with the self-perceived ability of the respondents to meet spiritual needs. Several barriers 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.

Regarding prior training on spirituality and spiritual care, only 25% of the medical professionals felt that they had received some form of education with a meagre 7% of them stating that their education was adequate. Those respondents who acknowledged that they have had prior training on spiritual care highlighted that they learnt on the job or because of their self-interest.

In summary, the results from this survey highlight that oncology trainees and practicing oncologists often encounter patients with spiritual care needs. Although nearly half of the medical professionals perceived that they were able to meet the spiritual care needs of their patients, there were several barriers identified such as

lack of time, lack of training and poor understanding over the role played by medical professionals exist in the provision of spiritual care to their patients.

Recommendations:

1. Incorporation of educational components on various aspects of spirituality and spiritual care in the context of health within the curriculum during the training period (both under-graduate and post-graduate education) for oncology professionals. Access to existing and new resources on spiritual care for continuing professional education for the practising oncologists can facilitate learning of skills required to deal with spiritual issues.

2. Spreading awareness on, and adoption of, the guidelines developed by Cancer Australia (2014) on 'responding to suffering in adults with cancer' that focusses on spiritual issues by oncology professionals. A change in current clinical practice would be warranted so as to incorporate a formal spiritual screening assessment tool during patient interactions. As there are several short validated tools already available, undertaking screening may not take-up a lot of clinicians' time. This warrants further research.

3. In the context of multi-disciplinary cancer care, as any of the team members could screen, identify and refer to the appropriate professional, development of clinical pathway for optimal referral and delivery of spiritual care and support for patients with cancer within the local health network systems is required.

Reference list

Ahn, S H, An, Y L, Yoo, Y S, Ando, M, & Yoon, S J. (2012). Effects of a short-term life review on spiritual well-being, depression, and anxiety in terminally ill cancer patients. *Journal of Korean Academy of Nursing, 42*(1), 28-35. doi: 10.4040/jkan.2012.42.1.28

Albinsson, L, & Strang, P. (2002). A palliative approach to existential issues and death in end-stage dementia care. *J Palliat Care, 18*(3), 168-174.

Alcorn, S R, Balboni, M J, Prigerson, H G, Reynolds, A, Phelps, A C, Wright, A A, Block, S D, Peteet, J R, Kachnic, L A, & Balboni, T A. (2010). "If God wanted me yesterday, I wouldn't be here today": religious and spiritual themes in patients' experiences of advanced cancer. *J Palliat Med, 13*(5), 581-588. doi: 10.1089/jpm.2009.0343

Anandarajah, G, & Hight, E. (2001). Spirituality and medical practice: using the HOPE questions as a practical tool for spiritual assessment. *Am Fam Physician, 63*(1), 81-89.

Astrow, A B, Puchalski, C M, & Sulmasy, D P. (2001). Religion, spirituality, and health care: social, ethical, and practical considerations. *Am J Med, 110*(4), 283-287.

Astrow, A B, Wexler, A, Texeira, K, He, M K, & Sulmasy, D P. (2007). Is failure to meet spiritual needs associated with cancer patients' perceptions of quality of care and their satisfaction with care? *J Clin Oncol, 25*(36), 5753-5757. doi: 10.1200/JCO.2007.12.4362

Australian Bureau of Statistics. (2012). Cultural Diversity in Australia. Retrieved 28th of October, 2014, from http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2071.0main+features902012-2013

Australian Institute of Health and Welfare. (2012). *Medical Workforce*. Retrieved from http://www.aihw.gov.au/publication-detail/?id=60129546100.

Australian Medical Council. (2011). *Assessment and Accreditation of Medical Schools: Standards and Procedures*. Canberra.

Awaad, R, Ali, S, Salvador, M, & Bandstra, B. (2014). A Process-Oriented Approach to Teaching Religion and Spirituality in Psychiatry Residency Training. *Acad Psychiatry*(ePub Dec 16). doi: 10.1007/s40596-014-0256-y

Back, A L, Deignan, P F, & Potter, P A. (2014). Compassion, compassion fatigue, and burnout: key insights for oncology professionals. *Am Soc Clin Oncol Educ Book*, e454-459. doi: 10.14694/EdBook_AM.2014.34.e454

Balboni, M J, Babar, A, Dillinger, J, Phelps, A C, George, E, Block, S D, Kachnic, L, Hunt, J, Peteet, J, Prigerson, H G, VanderWeele, T J, & Balboni, T A. (2011). "It depends": viewpoints of patients, physicians, and nurses on patient-practitioner prayer in the setting of advanced cancer. *J Pain Symptom Manage, 41*(5), 836-847. doi: 10.1016/j.jpainsymman.2010.07.008

Balboni, M J, Sullivan, A, Amobi, A, Phelps, A C, Gorman, D P, Zollfrank, A, Peteet, J R, Prigerson, H G, Vanderweele, T J, & Balboni, T A. (2013). 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, 31*(4), 461-467. doi: 10.1200/JCO.2012.44.6443

Balboni, M J, Sullivan, A, Enzinger, A C, Epstein-Peterson, Z D, Tseng, Y D, Mitchell, C, Niska, J, Zollfrank, A, Vanderweele, T J, & Balboni, T A. (2014). Nurse and Physician Barriers to Spiritual Care Provision at the End of Life. *J Pain Symptom Manage, 48*(3), 400-410. doi: 10.1016/j.jpainsymman.2013.09.020

Balboni, T A, Paulk, M E, Balboni, M J, Phelps, A C, Loggers, E T, Wright, A A, Block, S D, Lewis, E F, Peteet, J R, & Prigerson, H G. (2010). Provision of spiritual care to patients with advanced cancer: associations with medical care and quality of life near death. *J Clin Oncol, 28*(3), 445-452. doi: 10.1200/JCO.2009.24.8005

Balboni, T A, Vanderwerker, L C, Block, S D, Paulk, M E, Lathan, C S, Peteet, J R, & Prigerson, H G. (2007). Religiousness and spiritual support among advanced cancer patients and associations with end-of-life treatment preferences and quality of life. *J Clin Oncol, 25*(5), 555-560. doi: 10.1200/JCO.2006.07.9046

Barrows, H S. (1983). Problem-based, self-directed learning. *JAMA, 250*(22), 3077-3080.

Bennett, C, Khangura, S, Brehaut, J C, Graham, I D, Moher, D, Potter, B K, & Grimshaw, J M. (2010). Reporting guidelines for survey research: an analysis of published guidance and reporting practices. *PLoS Med, 8*(8), e1001069. doi: 10.1371/journal.pmed.1001069

Bennett, K B, Bridge D, Shepherd, J. (2014). Spirituality in medical education: An Australian elective example [online]. *Focus on Health Professional Education: A Multi-disciplinary Journal, 15*(3), 14-21.

Bennett, V, & Thompson, M. (2015). Teaching spirituality to student nurses. *J Nurs Educ Pract, 5*(2), 26-33.

Best, M, Butow, P, & Olver, I. (2014). Spiritual support of cancer patients and the role of the doctor. *Support Care Cancer, 22*(5), 1333-1339. doi: 10.1007/s00520-013-2091-1

Bolmsjo, I. (2001). Existential issues in palliative care: interviews of patients with amyotrophic lateral sclerosis. *J Palliat Med, 4*(4), 499-505. doi: 10.1089/109662101753381647

Bonelli, R, Dew, R E, Koenig, H G, Rosmarin, D H, & Vasegh, S. (2012). Religious and spiritual factors in depression: review and integration of the research. *Depress Res Treat, 2012*, 962860. doi: 10.1155/2012/962860

Breitbart, W, Poppito, S, Rosenfeld, B, Vickers, A J, Li, Y, Abbey, J, Olden, M, Pessin, H, Lichtenthal, W, Sjoberg, D, & Cassileth, B R. (2012). Pilot randomized controlled trial of individual meaning-centered psychotherapy

for patients with advanced cancer. *J Clin Oncol, 30*(12), 1304-1309. doi: 10.1200/JCO.2011.36.2517

Bridge, D T, & Bennett, K S. (2014). "Spirituality, suffering, and healing": a learning option for Western Australian medical students. *J Pain Symptom Manage, 47*(3), 659-665. doi: 10.1016/j.jpainsymman.2013.09.022

Brown, T J, Suter, T A. (2012). *Marketing Research*. USA: Cengage Learning.

Brumley, R, Enguidanos, S, Jamison, P, Seitz, R, Morgenstern, N, Saito, S, McIlwane, J, Hillary, K, & Gonzalez, J. (2007). Increased satisfaction with care and lower costs: results of a randomized trial of in-home palliative care. *J Am Geriatr Soc, 55*(7), 993-1000. doi: 10.1111/j.1532-5415.2007.01234.x

Burkhardt, M A. (1989). Spirituality: an analysis of the concept. *Holist Nurs Pract, 3*(3), 69-77.

Burkhart, L, & Hogan, N. (2008). An experiential theory of spiritual care in nursing practice. *Qual Health Res, 18*(7), 928-938. doi: 10.1177/1049732308318027

Burns, K E, Duffett, M, Kho, M E, Meade, M O, Adhikari, N K, Sinuff, T, Cook, D J, & Group, A. (2008). A guide for the design and conduct of self-administered surveys of clinicians. *CMAJ, 179*(3), 245-252. doi: 10.1503/cmaj.080372

Bussing, A, Ostermann, T, & Matthiessen, P F. (2005). Role of religion and spirituality in medical patients: confirmatory results with the SpREUK questionnaire. *Health Qual Life Outcomes, 3*, 10. doi: 10.1186/1477-7525-3-10

Cancer Australia. (2014). Clinical guidance for responding to suffering in adults with cancer. Retrieved 11th April 2015, from http://guidelines.canceraustralia.gov.au/guidelines/suffering/ch01.php

Candy, B, Jones, L, Varagunam, M, Speck, P, Tookman, A, & King, M. (2012). Spiritual and religious interventions for well-being of adults in the terminal phase of disease. *Cochrane Database Syst Rev, 5*, CD007544. doi: 10.1002/14651858.CD007544.pub2

Cetinkaya, B A, Arife and Dundar, Sebahat Altundag. (2013). Nurses' perceptions of spirituality and spiritual care. *The Australian Journal of Advanced Nursing, 31*(1), 5-10.

Chibnall, J T, Bennett, M L, Videen, S D, Duckro, P N, & Miller, D K. (2004). Identifying barriers to psychosocial spiritual care at the end of life: a physician group study. *Am J Hosp Palliat Care, 21*(6), 419-426.

Chibnall, J T, & Brooks, C A. (2001). Religion in the clinic: the role of physician beliefs. *South Med J, 94*(4), 374-379.

Chochinov, H M, Kristjanson, L J, Breitbart, W, McClement, S, Hack, T F, Hassard, T, & Harlos, M. (2011). Effect of dignity therapy on distress and end-of-life experience in terminally ill patients: a randomised controlled trial. *Lancet Oncol, 12*(8), 753-762. doi: 10.1016/S1470-2045(11)70153-X

Choi, B K, Pak, W.A. (2005). Catalog of biases in questionnaires. *Prev Chronic Dis, 2*(1), 1-15. http://www.cdc.gov/pcd/issues/2005/jan/04_0050.htm

Cholerton, S, & Jordan, R. (2005). Core curriculum and student-selected components. In J. A. Dent & A. Harden (Eds.), *A practical guide to medical teachers* (pp. 171-183): Elsevier health.

Clinical Oncological Society of Australia. (2003). The Cancer Council Australia and the National Cancer Control Initiative 2002: Optimising Cancer Care in Australia. . Retrieved 24 October, 2014

Cohen, M Z, Holley, L M, Wengel, S P, & Rabbi Mendel, K. (2012). A platform for nursing research on spirituality and religiosity: definitions and measures. *West J Nurs Res, 34*(6), 795-817. doi: 10.1177/0193945912444321

Cooper, K L, Chang, E, Sheehan, A, & Johnson, A. (2013). The impact of spiritual care education upon preparing undergraduate nursing students to provide spiritual care. *Nurse Educ Today, 33*(9), 1057-1061. doi: 10.1016/j.nedt.2012.04.005

Culatto, A, & Summerton, C B. (2014). Spirituality and Health Education: A National Survey of Academic Leaders UK. *J Relig Health*(ePub Nov 26). doi: 10.1007/s10943-014-9974-4

Curlin, F A, Lantos, J D, Roach, C J, Sellergren, S A, & Chin, M H. (2005). Religious characteristics of U.S. physicians: a national survey. *J Gen Intern Med, 20*(7), 629-634. doi: 10.1111/j.1525-1497.2005.0119.x

Curlin, F A, & Roach, C J. (2007). By intuitions differently formed: how physicians assess and respond to spiritual issues in the clinical encounter. *Am J Bioeth, 7*(7), 19-20. doi: 10.1080/15265160701399586

D'Souza, R. (2007). The importance of spirituality in medicine and its application to clinical practice. *Med J Aust, 186*(10 Suppl), S57-59.

D'Souza, R, & George, K. (2006). Spirituality, religion and psychiatry: its application to clinical practice. *Australas Psychiatry, 14*(4), 408-412. doi: 10.1111/j.1440-1665.2006.02314.x

Daly, B J, Douglas, S L, Gunzler, D, & Lipson, A R. (2013). Clinical trial of a supportive care team for patients with advanced cancer. *J Pain Symptom Manage, 46*(6), 775-784. doi: 10.1016/j.jpainsymman.2012.12.008

De Vaus, D A. (2002). *Surveys in Social Research*. Australia: Allen & Unwin.

Dent, J A, & Harden, R M. (2013). *A practical guide for medical teachers*. China: Elsevier Health.

Donovan, K A, Grassi, L, McGinty, H L, & Jacobsen, P B. (2014). Validation of the distress thermometer worldwide: state of the science. *Psychooncology, 23*(3), 241-250. doi: 10.1002/pon.3430

Downey, L, Diehr, P, Standish, L J, Patrick, D L, Kozak, L, Fisher, D, Congdon, S, & Lafferty, W E. (2009). Might massage or guided meditation provide "means to a better end"? Primary outcomes from an efficacy trial with patients at the end of life. *J Palliat Care, 25*(2), 100-108.

Draper, P, & McSherry, W. (2002). A critical view of spirituality and spiritual assessment. *J Adv Nurs, 39*(1), 1-2.

Ecklund, E H, Cadge, W, Gage, E A, & Catlin, E A. (2007). The religious and spiritual beliefs and practices of academic pediatric oncologists in the United States. *J Pediatr Hematol Oncol, 29*(11), 736-742. doi: 10.1097/MPH.0b013e31815a0e39

Edwards, A, Pang, N, Shiu, V, & Chan, C. (2010). The understanding of spirituality and the potential role of spiritual care in end-of-life and palliative care: a meta-study of qualitative research. *Palliat Med, 24*(8), 753-770. doi: 10.1177/0269216310375860

El Nawawi, N M, Balboni, M J, & Balboni, T A. (2012). Palliative care and spiritual care: the crucial role of spiritual care in the care of patients with advanced illness. *Curr Opin Support Palliat Care, 6*(2), 269-274. doi: 10.1097/SPC.0b013e3283530d13

Elo, S, & Kyngas, H. (2008). The qualitative content analysis process. *J Adv Nurs, 62*(1), 107-115. doi: 10.1111/j.1365-2648.2007.04569.x

Engel, G L. (1977). The need for a new medical model: a challenge for biomedicine. *Science, 196*(4286), 129-136.

Epstein-Peterson, Z D, Sullivan, A J, Enzinger, A C, Trevino, K M, Zollfrank, A A, Balboni, M J, VanderWeele, T J, & Balboni, T A. (2014). Examining forms of spiritual care provided in the advanced cancer setting. *Am J Hosp Palliat Care*(ePub Jul 8). doi: 10.1177/1049909114540318

Epstein, R M. (2007). Assessment in medical education. *N Engl J Med, 356*(4), 387-396. doi: 10.1056/NEJMra054784

Ferrell, B. (2007). Meeting spiritual needs: what is an oncologist to do? *J Clin Oncol, 25*(5), 467-468. doi: 10.1200/JCO.2006.09.3724

Fisher, J W, Brumley, D. (2012). Palliative care doctors need help with spiritual wellbeing. *Journal for the Study of Spirituality, 2*(1), 49-60.

Fitchett, G. (2012). Next steps for spiritual assessment in healthcare. In M. Cobb, Puchalski, C., Rumbold, B. (Ed.), *Oxford textbook of spirituality in healthcare* (pp. 299-305). Oxford: Oxford Unviversity Press.

Gade, G, Venohr, I, Conner, D, McGrady, K, Beane, J, Richardson, R H, Williams, M P, Liberson, M, Blum, M, & Della Penna, R. (2008). Impact of an inpatient palliative care team: a randomized control trial. *J Palliat Med, 11*(2), 180-190. doi: 10.1089/jpm.2007.0055

GLOBOCAN. (2012). Estimated cancer incidence, mortality and prevalence worldwide in 2012. Retrieved 31st of August 2014, from World Health Organization http://globocan.iarc.fr/Pages/fact_sheets_cancer.aspx

Green, S A. (2006). Surgeons and shamans: the placebo value of ritual. *Clin Orthop Relat Res, 450*, 249-254. doi: 10.1097/01.blo.0000224044.69592.65

Grieves, V. (2009). Aboriginal spirituality: Aboriginal philosophy, the basis of aboriginal social and emotional wellbeing. Discussion Paper No. 9 Cooperative Research Centre for Aboriginal Health, Darwin.

Groer, M W, O'Connor, B, & Droppleman, P G. (1996). A course in health care spirituality. *J Nurs Educ, 35*(8), 375-377.

Harden, R M, & Laidlaw, J M. (1992). Effective continuing education: the CRISIS criteria. *Med Educ, 26*(5), 408-422.

Harrington, A. (2006). The 'Connection' health care providers make with dying patients. *Journal of Religion, Spirituality & Aging, 18*(2/3), 169.

Harrington, A. (2010). Spiritual well-being for older people. In E. MacKinlay (Ed.), *Ageing and spirituality across faiths and cultures* (pp. 179).

Harrington, A. (2014). The importance of spiritual assessment when caring for older adults. *Ageing & Society, FirstView Article* 1-16. doi: 10.1017/S0144686X14001007

Harrison, J D, Young, J M, Price, M A, Butow, P N, & Solomon, M J. (2009). What are the unmet supportive care needs of people with cancer? A systematic review. *Support Care Cancer, 17*(8), 1117-1128. doi: 10.1007/s00520-009-0615-5

Hartung, Y E, Henriques, L.M., Nyhof-Young, J.M. (2012). Towards an Outline for an Undergraduate Medicine Curriculum in Spirituality. *University of Toronot Medical Journal, 89*(2), 78-81.

Hegarty, M M, Abernethy, A P, Olver, I, & Currow, D C. (2011). Former palliative caregivers who identify that additional spiritual support would have been helpful in a population survey. *Palliat Med, 25*(3), 266-277. doi: 10.1177/0269216310389225

Hermann, C P. (2001). Spiritual needs of dying patients: a qualitative study. *Oncol Nurs Forum, 28*(1), 67-72.

Howell, D, & Olsen, K. (2011). Distress-the 6th vital sign. *Curr Oncol, 18*(5), 208-210.

Jafari, N, Zamani, A, Farajzadegan, Z, Bahrami, F, Emami, H, & Loghmani, A. (2013). The effect of spiritual therapy for improving the quality of life of women with breast cancer: a randomized controlled trial. *Psychol Health Med, 18*(1), 56-69. doi: 10.1080/13548506.2012.679738

Jourard, S M. (1971). *The Transparent Self*. Second Edition. New York. Van Nostrand Reinhold, p viii.

Kearney, M K, Weininger, R B, Vachon, M L, Harrison, R L, & Mount, B M. (2009). Self-care of physicians caring for patients at the end of life: "Being connected... a key to my survival". *JAMA, 301*(11), 1155-1164, E1151. doi: 10.1001/jama.2009.352

Kellehear, A. (1993). The unobtrusive researcher: A guide to methods (pp. 32-50).

Kellehear, A. (2000). Spirituality and palliative care: a model of needs. *Palliat Med, 14*(2), 149-155.

King, D E, Blue, A, Mallin, R, & Thiedke, C. (2004). Implementation and assessment of a spiritual history taking curriculum in the first year of

medical school. *Teach Learn Med, 16*(1), 64-68. doi: 10.1207/s15328015tlm1601_13

King, M B, & Koenig, H G. (2009). Conceptualising spirituality for medical research and health service provision. *BMC Health Serv Res, 9*, 116. doi: 10.1186/1472-6963-9-116

Knowles, M S, Holton III, E F, & Swanson, R A. (2012). Androgogy in practice *The adult learner* (pp. 138-162): Routledge.

Koenig, H, G. . (2007). Religion, spirituality and psychotic disorders. *Rev. Psiq. Clín., 34, supl 1*, 40-48.

Koenig, H G. (2004). STUDENTJAMA. Taking a spiritual history. *JAMA, 291*(23), 2881. doi: 10.1001/jama.291.23.2881

Koenig, H G. (2012). Religion, spirituality, and health: the research and clinical implications. *ISRN Psychiatry, 2012*, 278730. doi: 10.5402/2012/278730

Koenig, H G, Hooten, E G, Lindsay-Calkins, E, & Meador, K G. (2010). Spirituality in medical school curricula: findings from a national survey. *Int J Psychiatry Med, 40*(4), 391-398.

Koenig, H G, Larson, D B, & Larson, S S. (2001). Religion and coping with serious medical illness. *Ann Pharmacother, 35*(3), 352-359.

Kovacic, T, Zagoricnik, M, & Kovacic, M. (2013). Impact of relaxation training according to the Yoga In Daily Life(R) system on anxiety after breast cancer surgery. *J Complement Integr Med*(ePUB Jul 16). doi: 10.1515/jcim-2012-0009

Kristeller, J L, Zumbrun, C S, & Schilling, R F. (1999). 'I would if I could': how oncologists and oncology nurses address spiritual distress in cancer patients. *Psychooncology, 8*(5), 451-458.

Landmark, B T, Strandmark, M, & Wahl, A K. (2001). Living with newly diagnosed breast cancer--the meaning of existential issues. A qualitative study of 10 women with newly diagnosed breast cancer, based on grounded theory. *Cancer Nurs, 24*(3), 220-226.

Laurence, P. (1999). Can Religion and Spirituality Find a Place in Higher Education? *About Campus, 4*(5), 11-16.

Lee, E, & Baumann, K. (2013). German psychiatrists' observation and interpretation of religiosity/spirituality. *Evid Based Complement Alternat Med, 2013*, 280168. doi: 10.1155/2013/280168

Levretsky, H. (2010). Spirituality and aging. *Aging health, 6*(6), 749-769.

Liamputtong, P, & Ezzy, D. (2008). Making sense of qualitative data: Analysis process *Qualitative research methods* (pp. 257-285). Melbourne: Oxford University Press.

Lloyd-Williams, M, Cobb, M, O'Connor, C, Dunn, L, & Shiels, C. (2013). A pilot randomised controlled trial to reduce suffering and emotional distress in patients with advanced cancer. *J Affect Disord, 148*(1), 141-145. doi: 10.1016/j.jad.2012.11.013

Lo, B, Ruston, D, Kates, L W, Arnold, R M, Cohen, C B, Faber-Langendoen, K, Pantilat, S Z, Puchalski, C M, Quill, T R, Rabow, M W, Schreiber, S, Sulmasy, D P, & Tulsky, J A. (2002). Discussing religious and spiritual issues at the end of life: a practical guide for physicians. *JAMA, 287*(6), 749-754.

Lovanio, K, Wallace, M. . (2007). Promoting spiritual knowledge and attitudes: a student nurse education project. . *Holist Nurs Pract, 21*, 42-47.

Lucchetti, G, Lucchetti, A L, & Puchalski, C M. (2012). Spirituality in medical education: global reality? *J Relig Health, 51*(1), 3-19. doi: 10.1007/s10943-011-9557-6

Luckett, T, Davidson, P M, Boyle, F, Liauw, W, Agar, M, Green, A, & Lovell, M. (2014). Australian survey of current practice and guideline use in adult cancer pain assessment and management: perspectives of oncologists. *Asia Pac J Clin Oncol, 10*(2), e99-107. doi: 10.1111/ajco.12040

Luckhaupt, S E, Yi, M S, Mueller, C V, Mrus, J M, Peterman, A H, Puchalski, C M, & Tsevat, J. (2005). 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, 80*(6), 560-570.

Lunder, U, Furlan, M, & Simonic, A. (2011). Spiritual needs assessments and measurements. *Curr Opin Support Palliat Care, 5*(3), 273-278. doi: 10.1097/SPC.0b013e3283499b20

Mackenzie, L J, Carey, M L, Sanson-Fisher, R W, & D'Este, C A. (2013). Psychological distress in cancer patients undergoing radiation therapy treatment. *Support Care Cancer, 21*(4), 1043-1051. doi: 10.1007/s00520-012-1624-3

MacKinlay, E B, & Trevitt, C. (2007). Spiritual care and ageing in a secular society. *Med J Aust, 186*(10 Suppl), S74-76.

Martins, Y, Lederman, R I, Lowenstein, C L, Joffe, S, Neville, B A, Hastings, B T, & Abel, G A. (2012). Increasing response rates from physicians in oncology research: a structured literature review and data from a recent physician survey. *Br J Cancer, 106*(6), 1021-1026. doi: 10.1038/bjc.2012.28

Mazzarello, S, Clemons, M, Graham, I D, & Jacobs, C. (2014). Surviving Surveys. *J Oncol Pract*(ePub Aug 5). doi: 10.1200/JOP.2014.001484

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

McColl, E, Jacoby, A., Thomas L., Soutter, J., Bamford, C., Steen, N., Thomas, R., Harvey, E., Garratt, A., Bond, J. (2001). Design and use of questionnaires: a review of best practice applicable to surveys of health service staff and patients. *Health Technol Assess, 5*(31), 1-256.

McGrath, P. (2003). Spiritual pain: a comparison of findings from survivors and hospice patients. *Am J Hosp Palliat Care, 20*(1), 23-33.

McGrath, P, & Clarke, H. (2003). Creating the space for spiritual talk: insights from survivors of haematological malignancies. *Aust Health Rev, 26*(3), 116-132.

McMillan, S C, Small, B J, & Haley, W E. (2011). Improving hospice outcomes through systematic assessment: a clinical trial. *Cancer Nurs, 34*(2), 89-97. doi: 10.1097/NCC.0b013e3181f70aee

McSherry, W, Draper, P, & Kendrick, D. (2002). The construct validity of a rating scale designed to assess spirituality and spiritual care. *Int J Nurs Stud, 39*(7), 723-734.

McSherry, W, & Jamieson, S. (2011). An online survey of nurses' perceptions of spirituality and spiritual care. *J Clin Nurs, 20*(11-12), 1757-1767. doi: 10.1111/j.1365-2702.2010.03547.x

Meredith, P, Murray, J, Wilson, T, Mitchell, G, & Hutch, R. (2012). Can spirituality be taught to health care professionals? *J Relig Health, 51*(3), 879-889. doi: 10.1007/s10943-010-9399-7

Meredith, W, & O'Shea, E. (2007). Perceptions of spirituality and spiritual care among older nursing home residents at the end of life. *Holist Nurs Pract, 21*, 285–289.

Metropolitan Health and Aged Care Services Division. (2009). Providing optimal cancer care - Supportive care policy for Victoria. Retrieved 24 October, 2014, from www.health.vic.gov.au/cancer

Meyer, C L. (2003). How effectively are nurse educators preparing students to provide spiritual care? *Nurse Educ, 28*(4), 185-190.

Moattari, M, Yadgari, D, & Hoseini, S J. (2014). The evaluation of a composed program of continuing medical education for general practitioners. *J Adv Med Educ Prof, 2*(3), 120-125.

Moberg, D O. (2010). Spirituality research: Measuring the immeasurable? 62(2):99-114. *Perspectives on Science and Christian Faith, 62*(2), 99-104.

Monroe, M H, Bynum, D, Susi, B, Phifer, N, Schultz, L, Franco, M, MacLean, C D, Cykert, S, & Garrett, J. (2003). Primary care physician preferences regarding spiritual behavior in medical practice. *Arch Intern Med, 163*(22), 2751-2756. doi: 10.1001/archinte.163.22.2751

Mousavi, S R, & Akdari, M E. (2010). Spirituality and religion in cancer. *Ann Oncol, 21*(4), 907-908. doi: 10.1093/annonc/mdp604

Mueller, P S, Plevak, D J, & Rummans, T A. (2001). Religious involvement, spirituality, and medicine: implications for clinical practice. *Mayo Clin Proc, 76*(12), 1225-1235. doi: 10.4065/76.12.1225

Musick, D W, Cheever, T R, Quinlivan, S, & Nora, L M. (2003). Spirituality in medicine: a comparison of medical students' attitudes and clinical performance. *Acad Psychiatry, 27*(2), 67-73. doi: 10.1176/appi.ap.27.2.67

Nakash, R A, Hutton, J L, Jorstad-Stein, E C, Gates, S, & Lamb, S E. (2006). Maximising response to postal questionnaires--a systematic review of

randomised trials in health research. *BMC Med Res Methodol, 6*, 5. doi: 10.1186/1471-2288-6-5

National Breast Cancer Centre and National Cancer Control Initiative. (2003). Clinical practice guidelines for the psychosocial care of adults with cancer. Retrieved 24 October, 2014

National Institute for Clinical Excellence. (2004). *Improving supportive care and palliative care for adults with cancer*. Page 7. Retrieved 27 october 2014, from https://www.nice.org.uk/guidance/csgsp

Olver, I N, & Dutney, A. (2012). A randomized, blinded study of the impact of intercessory prayer on spiritual well-being in patients with cancer. *Altern Ther Health Med, 18*(5), 18-27.

Onyon, C. (2012). Problem-based learning: a review of the educational and psychological theory. *Clin Teach, 9*(1), 22-26. doi: 10.1111/j.1743-498X.2011.00501.x

Palliative Care Australia. (2005). Standards for Providing Quality Palliative Care for all Australians. Retrieved 27 October, 2014, from http://www.palliativecare.org.au/standards/thenationalstandards.aspx

Pearce, M J, Coan, A D, Herndon, J E, 2nd, Koenig, H G, & Abernethy, A P. (2012). Unmet spiritual care needs impact emotional and spiritual well-being in advanced cancer patients. *Support Care Cancer, 20*(10), 2269-2276. doi: 10.1007/s00520-011-1335-1

Pembroke, N F. (2008). Appropriate spiritual care by physicians: a theological perspective. *J Relig Health, 47*(4), 549-559.

Peteet, J R, & Balboni, M J. (2013). Spirituality and religion in oncology. *CA Cancer J Clin, 63*(4), 280-289. doi: 10.3322/caac.21187

Phelps, A C, Lauderdale, K E, Alcorn, S, Dillinger, J, Balboni, M T, Van Wert, M, Vanderweele, T J, & Balboni, T A. (2012). Addressing spirituality within the care of patients at the end of life: perspectives of patients with advanced cancer, oncologists, and oncology nurses. *J Clin Oncol, 30*(20), 2538-2544. doi: 10.1200/JCO.2011.40.3766

Pronk, K. (2005). Role of the doctor in relieving spiritual distress at the end of life. *Am J Hosp Palliat Care, 22*(6), 419-425.

Puchalski, C, Cobb, M, & Rumbold, M. (2012, p417-427). Curriculum development in spirituality and health in health professions. In M. Cobb, Puchalski, C., Rumbold, B. (Ed.), *Oxford textbook of spirituality in healthcare*.

Puchalski, C, Ferrell, B, Virani, R, Otis-Green, S, Baird, P, Bull, J, Chochinov, H, Handzo, G, Nelson-Becker, H, Prince-Paul, M, Pugliese, K, & Sulmasy, D. (2009). Improving the quality of spiritual care as a dimension of palliative care: the report of the Consensus Conference. *J Palliat Med, 12*(10), 885-904. doi: 10.1089/jpm.2009.0142

Puchalski, C M. (2006). Spirituality and medicine: curricula in medical education. *J Cancer Educ, 21*(1), 14-18. doi: 10.1207/s15430154jce2101_6

Puchalski, C M. (2010). Formal and informal spiritual assessment. *Asian Pac J Cancer Prev, 11 Suppl 1*, 51-57.

Puchalski, C M. (2012). Spirituality in the cancer trajectory. *Ann Oncol, 23 Suppl 3*, 49-55. doi: 10.1093/annonc/mds088

Puchalski, C M, Ferrell, B.R. (2010). *Making healthcare whole: Integrating spirituality into healthcare* (p3). West Conshohocken, PA, Templeton Press.

Rabow, M W, Dibble, S L, Pantilat, S Z, & McPhee, S J. (2004). The comprehensive care team: a controlled trial of outpatient palliative medicine consultation. *Arch Intern Med, 164*(1), 83-91. doi: 10.1001/archinte.164.1.83

RACGP. (2011). *The Royal Australian College of General Practitioners Curriculum for Australian General Practice* - South Melbourne, Victoria.

Rainbird, K, Perkins, J, Sanson-Fisher, R, Rolfe, I, & Anseline, P. (2009). The needs of patients with advanced, incurable cancer. *Br J Cancer, 101*(5), 759-764. doi: 10.1038/sj.bjc.6605235

Ramondetta, L, Brown, A, Richardson, G, Urbauer, D, Thaker, P H, Koenig, H G, Gano, J B, & Sun, C. (2011). Religious and spiritual beliefs of gynecologic oncologists may influence medical decision making. *Int J Gynecol Cancer, 21*(3), 573-581. doi: 10.1097/IGC.0b013e31820ba507

Rasinski, K A, Kalad, Y G, Yoon, J D, & Curlin, F A. (2011). An assessment of US physicians' training in religion, spirituality, and medicine. *Med Teach, 33*(11), 944-945. doi: 10.3109/0142159X.2011.588976

Ronaldson, S, Hayes, L, Aggar, C, Green, J, & Carey, M. (2012). Spirituality and spiritual caring: nurses' perspectives and practice in palliative and acute care environments. *J Clin Nurs, 21*(15-16), 2126-2135. doi: 10.1111/j.1365-2702.2012.04180.x

Rumbold, B. (2012). Models of spiritual care. In M. Cobb, Puchalski, C., Rumbold, B. (Ed.), *Oxford textbook of spirituality in healthcare* (pp. 177-184): Oxford University press.

Saguil, A, & Phelps, K. (2012). The spiritual assessment. *Am Fam Physician, 86*(6), 546-550.

Saldana, J. (2009). An introduction to codes and coding *The coding manual for qualitative researchers* (pp. 13).

Saumure, K, & Given, L. (2008). Rigor in Qualitative Research Retrieved 22 April, 2015, from http://dx.doi.org/10.4135/9781412963909

Shahid, S, & Thompson, S C. (2009). An overview of cancer and beliefs about the disease in Indigenous people of Australia, Canada, New Zealand and the US. *Aust N Z J Public Health, 33*(2), 109-118. doi: 10.1111/j.1753-6405.2009.00355.x

Shakespeare, W. (1608, ACT II, Scene III). King Lear. Retrieved 22 April, 2015, from http://shakespeare.mit.edu/lear/full.html

Shanafelt, T, & Dyrbye, L. (2012). Oncologist burnout: causes, consequences, and responses. *J Clin Oncol, 30*(11), 1235-1241. doi: 10.1200/JCO.2011.39.7380

Shi, L. (2008). Survey Research *Health Services Research Methods* (pp. 189-208). USA: Thomson.

Sierles, F S. (2003). How to do research with self-administered surveys. *Acad Psychiatry, 27*(2), 104-113. doi: 10.1176/appi.ap.27.2.104

Stec, J A. (2008). Bias. In P. J. Lavrakas (Ed.), *Encyclopedia of Survey Research Methods* SAGE Publications.

Sue, V M, Ritter, L.A. (2011). Writing survey questions *Conducting online surveys* (pp. 60): SAGE Publications.

Sulmasy, D P. (1999). Is medicine a spiritual practice? *Acad Med, 74*(9), 1002-1005.

Sulmasy, D P. (2002). A biopsychosocial-spiritual model for the care of patients at the end of life. *Gerontologist, 42 Spec No 3*, 24-33.

Surbone, A, & Baider, L. (2010). The spiritual dimension of cancer care. *Crit Rev Oncol Hematol, 73*(3), 228-235. doi: 10.1016/j.critrevonc.2009.03.011

Surbone, A, Konishi, T., Baider, L. (2010, chapter 40, p419-425). *Spiritual issues in supportive cancer care*.

SurveyMonkey. Retrieved 19th of July 2014, from https://www.surveymonkey.com/

Tan, H M, Braunack-Mayer, A, & Beilby, J. (2005). The impact of the hospice environment on patient spiritual expression. *Oncol Nurs Forum, 32*(5), 1049-1055. doi: 10.1188/04.ONF.1049-1055

Tan, H M, Wilson, A, Olver, I, & Barton, C. (2011). The experience of palliative patients and their families of a family meeting utilised as an instrument for spiritual and psychosocial care: A qualitative study. *BMC Palliat Care, 10*, 7. doi: 10.1186/1472-684X-10-7

Tanyi, R A. (2002). Towards clarification of the meaning of spirituality. *J Adv Nurs, 39*(5), 500-509.

Tarakeshwar, N, Vanderwerker, L C, Paulk, E, Pearce, M J, Kasl, S V, & Prigerson, H G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *J Palliat Med, 9*(3), 646-657. doi: 10.1089/jpm.2006.9.646

The Royal Australasian College of Physicians. (2013). Adult Medical Oncology - Advanced Training Curriculum Retrieved 27 October, 2014

Thistlethwaite, J E. (2013). Interprofessional education. In J. A. Dent & R. M. Harden (Eds.), *A practical guide for medical teachers* (pp. 190-196): Elsevier Health.

Tiew, L H, & Creedy, D K. (2012). Development and preliminary validation of a composite Spiritual Care-Giving Scale. *Int J Nurs Stud, 49*(6), 682-690. doi: 10.1016/j.ijnurstu.2011.11.014

Toussaint, L, Barry, M, Bornfriend, L, & Markman, M. (2014). Restore: the journey toward self-forgiveness: a randomized trial of patient education on

self-forgiveness in cancer patients and caregivers. *J Health Care Chaplain, 20*(2), 54-74. doi: 10.1080/08854726.2014.902714

Trueman, C. (2006). "History of Medicine". HistoryLearningSite.co.uk. 2006. Retrieved 22nd of October 2014, from http://www.historylearningsite.co.uk/history_of_medicine.htm

Tuten, T. (2010). Conducting online surveys *Advanced methods for conducting online behavioral research* (First ed., pp. 179-192). USA: American Psychological Association.

Udo, C. (2014). The concept and relevance of existential issues in nursing. *Eur J Oncol Nurs, 18*(4), 347-354. doi: 10.1016/j.ejon.2014.04.002

Vachon, M L. (2008). Meaning, spirituality, and wellness in cancer survivors. *Semin Oncol Nurs, 24*(3), 218-225. doi: 10.1016/j.soncn.2008.05.010

Vallurupalli, M, Lauderdale, K, Balboni, M J, Phelps, A C, Block, S D, Ng, A K, Kachnic, L A, Vanderweele, T J, & Balboni, T A. (2012). The role of spirituality and religious coping in the quality of life of patients with advanced cancer receiving palliative radiation therapy. *J Support Oncol, 10*(2), 81-87. doi: 10.1016/j.suponc.2011.09.003

van Rensburg, J, Myburgh, C., Szabo, C., Poggenpoel, M. (2012). The role of spirituality in specialist psychiatry: a review of the medical literature. *African Journal of Psychiatry, 16*, 247-255.

VanGeest, J B, Johnson, T P, & Welch, V L. (2007). Methodologies for improving response rates in surveys of physicians: a systematic review. *Eval Health Prof, 30*(4), 303-321. doi: 10.1177/0163278707307899

Vermandere, M, De Lepeleire, J, Smeets, L, Hannes, K, Van Mechelen, W, Warmenhoven, F, van Rijswijk, E, & Aertgeerts, B. (2011). Spirituality in general practice: a qualitative evidence synthesis. *Br J Gen Pract, 61*(592), e749-760. doi: 10.3399/bjgp11X606663

Wade, D T, & Halligan, P W. (2004). Do biomedical models of illness make for good healthcare systems? *BMJ, 329*(7479), 1398-1401. doi: 10.1136/bmj.329.7479.1398

Walter, T. (1997). The ideology and organization of spiritual care: three approaches. *Palliat Med, 11*(1), 21-30.

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

Wiebe, E R, Kaczorowski, J, & MacKay, J. (2012). Why are response rates in clinician surveys declining? *Can Fam Physician, 58*(4), e225-228.

Williams, A L, Selwyn, P A, Liberti, L, Molde, S, Njike, V Y, McCorkle, R, Zelterman, D, & Katz, D L. (2005). A randomized controlled trial of meditation and massage effects on quality of life in people with late-stage disease: a pilot study. *J Palliat Med, 8*(5), 939-952. doi: 10.1089/jpm.2005.8.939

Winslow, G R, & Wehtje-Winslow, B J. (2007). Ethical boundaries of spiritual care. *Med J Aust, 186*(10 Suppl), S63-66.

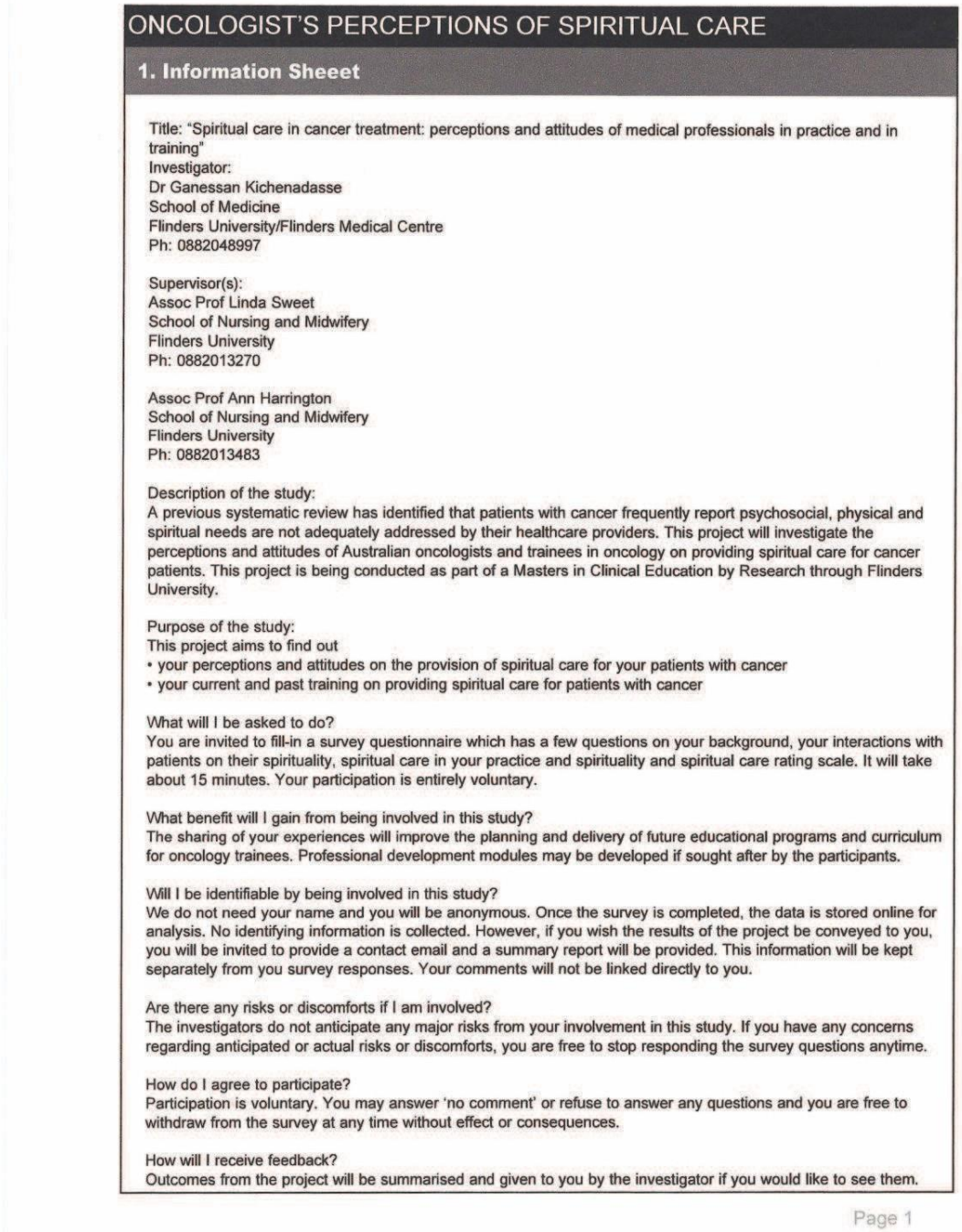
World Health Organization. (1998). WHOQOL and Spirituality, Religiousness and Personal Beliefs (SRPB). Retrieved 22nd October 2014, from www.who.int/mental_health/media/en/622.pdf

World Health Organization. (2007). *People at the center of health care: harmonizing mind and body, people and systems*. Geneva.

World Health Organization. (2010). *Framework for Action on Interprofessional Education & Collaborative Practice* Geneva: World Health Organization Retrieved from http://www.who.int/hrh/nursing_midwifery/en/.

Appendices

Appendix I: Survey Questionnaire



ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

1. Information Sheeet

Title: "Spiritual care in cancer treatment: perceptions and attitudes of medical professionals in practice and in training"

Investigator:
Dr Ganessan Kichenadasse
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Ph: 0882048997

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Assoc Prof Linda Sweet
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School of Nursing and Midwifery
Flinders University
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Description of the study:
A previous systematic review has identified that patients with cancer frequently report psychosocial, physical and spiritual needs are not adequately addressed by their healthcare providers. This project will investigate the perceptions and attitudes of Australian oncologists and trainees in oncology on providing spiritual care for cancer patients. This project is being conducted as part of a Masters in Clinical Education by Research through Flinders University.

Purpose of the study:
This project aims to find out
- your perceptions and attitudes on the provision of spiritual care for your patients with cancer
- your current and past training on providing spiritual care for patients with cancer

What will I be asked to do?
You are invited to fill-in a survey questionnaire which has a few questions on your background, your interactions with patients on their spirituality, spiritual care in your practice and spirituality and spiritual care rating scale. It will take about 15 minutes. Your participation is entirely voluntary.

What benefit will I gain from being involved in this study?
The sharing of your experiences will improve the planning and delivery of future educational programs and curriculum for oncology trainees. Professional development modules may be developed if sought after by the participants.

Will I be identifiable by being involved in this study?
We do not need your name and you will be anonymous. Once the survey is completed, the data is stored online for analysis. No identifying information is collected. However, if you wish the results of the project be conveyed to you, you will be invited to provide a contact email and a summary report will be provided. This information will be kept separately from you survey responses. Your comments will not be linked directly to you.

Are there any risks or discomforts if I am involved?
The investigators do not anticipate any major risks from your involvement in this study. If you have any concerns regarding anticipated or actual risks or discomforts, you are free to stop responding the survey questions anytime.

How do I agree to participate?
Participation is voluntary. You may answer 'no comment' or refuse to answer any questions and you are free to withdraw from the survey at any time without effect or consequences.

How will I receive feedback?
Outcomes from the project will be summarised and given to you by the investigator if you would like to see them.

Page 1

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

involved.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number INSERT PROJECT No. here following approval). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

***1. Are you willing to participate in this survey?**

○ Yes → continues

○ No → Skips to page 12

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

2. Survey Part A

Please give the necessary information about yourself. It is VERY important that you complete the questionnaire by yourself and that you answer all appropriate questions. There are no right or wrong answers so please answer honestly.

2. Are you male or female?

- ◯ Male
- ◯ Female

3. To which age group do you belong?

- ◯ 20 - 29 years
- ◯ 30 - 39 years
- ◯ 40 - 49 years
- ◯ 50 - 59 years
- ◯ 60 or more years

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

3. Survey Part B

4. What is your professional rank?

- ◯ Advanced trainee
- ◯ Research fellow
- ◯ Practising consultant
- ◯ Other (please specify)

5. Do you work

- ◯ Full time
- ◯ Part time

6. What is the place of your current work?

- ◯ Public hospital
- ◯ Private hospital
- ◯ Both Public & private hospital
- ◯ Other (please specify)

7. How long have you been working/training in Oncology?

- ◯ Less than 1 year
- ◯ 1 - 5 years
- ◯ 6 - 10 years
- ◯ 11 - 25 years
- ◯ 25 years and above

8. What type of specialty are you presently working in?

- ◯ Medical Oncology
- ◯ Radiation Oncology
- ◯ Other (please specify)

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

4. Survey Part C

***9. Spirituality and spiritual care rating scale**

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

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

5.

10. Who do you feel should be responsible for providing Spiritual Care? (Select all that apply)

- ☐ Medical Practitioners
- ☐ Nurses
- ☐ Chaplains/Clergy
- ☐ Patient themselves
- ☐ Patient's family/friends
- ☐ Other (please specify)

11. In your clinical practice have you ever encountered a patient(s) with a spiritual need (s)?

- ○ Yes → goes to page 6
- ○ No → goes to page 7

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

6.

12. 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 (please specify)

13. Do you feel that you are usually able to meet your patients Spiritual Needs?

- ◯ Yes
- ◯ No

If No please give details

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

7.

14. During the course of your medical (or oncology) training did you receive any education covering Spiritual Care?

○ Yes → goes to page 8
○ No → goes to page 9

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

8.

15. If yes when was this education provided? (Select all that apply)

- [ ] Under-graduate training
- [ ] Post-graduate training

16. In what format was the education provided? (Select all that apply)

- [ ] Lectures
- [ ] Case-based discussions
- [ ] Self-learning
- [ ] Experienced on the job

Other (please specify)

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

9.

17. Which country did you undertake your under-graduate Medical training?

18. Since qualifying as a medical practitioner, have you been on any training courses which covered Spiritual Care?

- ◯ Yes
- ◯ No

If Yes please give details of the training course and state whether you feel this has enabled you to better meet your patient's spiritual needs

19. Do you feel medical practitioners receive sufficient training on matters concerning Spiritual Care?

- ◯ Yes
- ◯ No

Comment

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

20. If Medical Practitioners are to receive education concerning Spiritual Care, which of the following do you feel should be responsible for providing this education? (You may select more than one)

- ☐ Under-graduate training
- ☐ Post-graduate training
- ☐ Medical practitioners themselves
- ☐ Royal college
- ☐ Combination of above
- ☐ Employers

Other (please specify)

Box extended

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

10. Survey Part D

21. Do you have a religion?

○ Yes

○ No → Goes to page 13

If yes, please state which religion

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

11.

22. Are you practicing your religion?

◯ Yes

◯ No

If Yes - please briefly describe in what capacity you practise i.e. attend Services and the likes etc.

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

12. PLEASE ONLY COMPLETE THIS SECTION IF YOU HAVE CHOSEN NOT TO COMPLETE THE QU...

If you have chosen not to complete the questionnaire, would you mind sharing your reasons with me?

23. I decided not to complete the questionnaire because...

ONCOLOGIST'S PERCEPTIONS OF SPIRITUAL CARE

13. Finished

May I thank you for taking the time to complete this questionnaire.

24. If you would like to receive a summary report of this study please provide an email address. This information will be removed from responses prior to analysis to prevent anyone being able to identify your individual responses.

Page 15

Appendix II: SSCRS – Spirituality and spiritual care rating scale questions

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

Appendix III: SSCRS: Spiritual domains within SSCRS

Domains	**Question item from table III**
Hope	i, l
Existentialism that is meaning, purpose and fulfilment	f, h
Forgiveness	c
Beliefs and values	p
Relationships	o
Belief in a God or deity	d, e,
Morality and conduct	j, q
Creativity and self-expression	m

Appendix IV: SSCRS: Spiritual care components

Using six questions (a, b, g, h, k, n) within the SSCRS, individual spiritual scores were calculated. The following are the six questions:

"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

I believe medical practitioners can provide spiritual care by showing kindness, concern and cheerfulness when giving care

I believe medical professionals can provide spiritual care by spending time with a patient giving support and reassurance especially in time of need

I believe medical professionals can provide spiritual care by enabling a patient to find meaning and purpose in their illness

I believe medical professionals can provide spiritual care by listening to and allowing patients' time to discuss and explore their fears, anxieties and troubles

I believe medical professionals can provide spiritual care by having respect for privacy, dignity and the religious and cultural beliefs of a patient"

Appendix V: Multivariate linear regression (spiritual care score vs group with confounders)

Source	SS	df	MS	Number of obs =	61
Model	58.6670111	9	6.51855679	F(9, 51) =	1.15
Residual	290.021513	51	5.68669634	Prob > F =	0.3489
Total	348.688525	60	5.81147541	R-squared =	0.1683
				Adj R-squared =	0.0215
				Root MSE =	2.3847

spritual_care_score	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
2.training	.4946728	.7434564	0.67	0.509	-.9978783	1.987224
1.gender	.8962165	.6390249	1.40	0.167	-.3866794	2.179112
age_group						
2	1.300897	.9856167	1.32	0.193	-.6778113	3.279605
3	.9403809	1.610863	0.58	0.562	-2.293561	4.174323
4	-.1586923	1.826373	-0.09	0.931	-3.825289	3.507904
oncology_experience						
2	.7757779	.9623358	0.81	0.424	-1.156192	2.707748
3	-1.280692	1.254406	-1.02	0.312	-3.799017	1.237633
4	-1.032857	1.752952	-0.59	0.558	-4.552056	2.486341
2.religion	.7164662	.6625942	1.08	0.285	-.6137472	2.04668
_cons	19.50445	.7207612	27.06	0.000	18.05746	20.95144

Appendix VI: Logistic regression with confounders for medical professionals

able_to_meet	Odds Ratio	Std. Err.	[95% Conf.	Interval]
1.gender	3.063065	1.878824	.920547	10.19217
age_group				
2	2.467983	2.232692	.419075	14.53424
3	6.270857	9.343471	.3381046	116.3062
4	8.653549	15.13847	.2806126	266.8587
oncology_experience				
2	.7793651	.7087437	.1311204	4.632461
3	.2060882	.2374771	.0215381	1.971967
4	.47959	.7713853	.020501	11.21929
2.religion	2.351227	1.498163	.6744079	8.197215
2.training	1.489054	1.02743	.3851157	5.757445