



The Spirituality in End-of-Life Cancer Patients, in Relation to Anxiety, Depression, Coping Strategies and the Daily Spiritual Experiences: A Cross-Sectional Study

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Abstract

This study aimed to investigate “Faith” and “Meaning/Peace” dimensions of the functional assessment of chronic illness therapy–spiritual well-being scale (FACIT-Sp-12) in relation to coping strategies, anxiety and depression, and to analyze the relationship between FACIT-Sp-12 and the daily spiritual experience scale in end-of-life cancer patients. A sample of 152 participants were involved. The daily spiritual experiences correlated the most with “Faith” subscale. Moreover, religious coping, depression and daily spiritual experiences resulted “Faith” significant predictors, while depression, anxiety, self-distraction, positive reframing and behavioral disengagement were “Meaning/Peace” subscale’s significant predictors. These findings highlighted the considerable impact of the daily spiritual experiences on patients’ spiritual well-being.

Keywords Spiritual well-being · FACIT-Sp-12 · Daily spiritual experiences · End of life

Introduction

An interest regarding cancer patients’ spirituality and religion has grown over the past few decades. At the end of life, themes such as death, the meaning of life, the purpose of life and the dimension of the transcendence become more significant, and an increasing emphasis is being put on patients’ spiritual well-being (Balboni et al. 2009; Shin et al. 2017). The fact that an increasing number of cancer patients

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identify themselves as spiritual but not as religious people supports the relevance of implementing research in this field (Shahabi et al. 2002; Peterman et al. 2014). At this moment, no definition of spirituality is universally accepted, and no consensus exists on this dimension within health research (Monod et al. 2011). When discussing spirituality, it is important to make a distinction between this concept and the religiosity one. Although it has been argued that spirituality can only exist in deeply religious people (Koenig 2008; Koenig et al. 2012), a lot of studies proposed a theoretical distinction between these two constructs (Hill et al. 2000; Sulmasy 2006). From this perspective, religiousness is defined as the participation in institutionally sanctioned activities of specific religious groups, linked to beliefs which are also institutionally sanctioned, whereas spirituality is more frequently defined as the feeling stemming from the person's connection with the transcendent dimension of the existence, i.e., the meaning or the sense of purpose (Peterman et al. 2002). Besides, spirituality is a cultural-related concept. Each cultural framework influences spirituality, which can be considered as the peculiar expression of the relationship between people and the transcendent. As stated by Koenig in *Handbook of Religion and Health* (2012), "Spirituality is distinguished from all other aspects of humanism, values, morals and mental health by its connection to that which is sacred—the transcendent. The transcendent is that which is outside of the self, and yet also within the self; in Western traditions, it is called God, Allah, HaShem or a Higher Power. In Eastern traditions, it may be called the Brahma, Buddha, Dao, or ultimate truth/reality." There is evidence, from North American studies, of the differences between Caucasian, Latino and African-American populations, in how they conceptualize spirituality (Selman et al. 2011). Researches on spiritual well-being have found that the distinctions in religious beliefs may reflect the cultural, racial and ethnic differences in cancer patients (Moadel et al. 2007; Simon et al. 2007; Murphy et al. 2010). These findings suggest that culture should be taken into account when assessing spirituality. Instead, with regard to the cultural differences, the literature showed that, when nearing death, the end-of-life spiritual needs become universal (Milligan 2004). Spiritual well-being is considered a determinant factor influencing the patients' Quality of Life (QoL) and, as a multidimensional concept, comprehends different dimensions such as faith, meaning of life and peace of mind (Dong et al. 2017). One of the most used tools to evaluate the spiritual well-being experienced by end-of-life patients is the functional assessment of chronic illness therapy—spiritual well-being (FACIT-Sp-12) (Brady et al. 1999). This questionnaire is composed by two scales: the first one is linked to the patient's existence, the search of one's own personal meaning of life, and the sense of peace and purpose in life (Spilka and McIntosh 1996; Nelson et al. 2002) and can be understood as the "personal experience of the transcendent" (Spilka and McIntosh 1996), and the second one is defined as "the attendance to faith, rituals and activities of the traditional religion" (Elkins et al. 1988) and is therefore linked to faith and religion (Spilka and McIntosh 1996; Nelson et al. 2002). The FACIT-Sp-12 has been cross-culturally validated and translated in fourteen languages, in different countries and populations with different religious traditions and spiritual background (Akturk et al. 2017). As referred by a recent review on instruments assessing spirituality used in the clinical research, the FACIT-Sp-12 emerged as the most validated questionnaire (Monod

et al. 2011). The assessment of spiritual well-being emerged as a relevant factor for patients' QoL and health. Due to the multidimensional nature of spirituality, the literature presents many studies, concerning: the association between spiritual well-being and QoL (Brady et al. 1999; Mytko and Knight 1999; Bai et al. 2015; Bovero et al. 2016; Munoz et al. 2015; Rabow and Knish 2015), the relationship between spirituality and depression (Nelson et al. 2009; Bekelman et al. 2010; Brown et al. 2015), the role of faith in cancer adjustment (Pargament et al. 2004; Ramirez et al. 2012; Harris et al. 2013; Trevino et al. 2014) and the effect of the spiritual coping on QoL (Tarakeshwar et al. 2006; Vallurupalli et al. 2012). These studies explored spirituality in many diverse types of patients, i.e., advanced cancer patients, patients with a current or past diagnosis of cancer, terminally ill cancer patients, cancer survivors, cancer patients receiving both oncological and palliative care, patients with HIV infection or AIDS, outpatients with chronic heart failure, patients in hemodialysis, medically ill elderly patients and older adults with advanced chronic illness.

With regard to advanced cancer patients' spiritual well-being, the study conducted by Renz and colleagues (Renz et al. 2015) highlighted that the attention devoted to the spiritual experience of the transcendence may complement current clinical approaches based on the patients' needs. An assessment of the patients' daily spiritual experiences has emerged as a relevant element to provide an individualized spiritual care. In this regard, the daily spiritual experiences refer to the individual's emotional perception of the transcendent in daily life (Hood et al. 1996) that may be evoked by religious beliefs or by ordinary events (Ng et al. 2009). The daily spiritual experiences are represented by the direct and regular individual encounters with the dimension of the transcendence rather than the person's specifically religious beliefs or behaviors. Starting from this theorization, Underwood and Teresi developed a tool, the daily spiritual experiences scale (DSES) (2002), to measure this experiential component of religiousness and spirituality. The peculiarity of this questionnaire is the ability to measure the daily spiritual life in its emotional and experiential details, rather than in its cognitive aspects, with the aim to investigate these experiences among various religious and spiritual traditions (Underwood 2006). In the literature, it has been evidenced that the DSEs positively influence the lifestyle of patients who survived cancer (Park et al. 2009) and highlighted their involvement in the pain control during cancer active treatments (Lo et al. 2016). In fact, as evidenced in these two studies, daily spiritual experiences enhance the QoL in terms of self-care, healthy behaviors, quality of social relationships and better emotional well-being as a source of strength and comfort when facing cancer experience. Participants belonging to different religions considered their daily spiritual experiences as intense and powerful circumstances characterized by an altered body awareness, less pain, less distress, a better acceptance of the illness or of death (Renz et al. 2015). Moreover, the DSEs have been studied in a Jewish population (Kalkstein and Tower 2009) and in a sample of patients with a non-oncological chronic illness (Koenig et al. 2016). Furthermore, the DSES improves the evaluation of spiritual well-being when combined with other scales, because it provides deeper information about how spiritual experiences and psychological and physical well-being are related to each other (Underwood 2006). There are no studies in the literature investigating spirituality through DSEs in a sample of terminal cancer patients.

Therefore, our study originated from the following premises: (1) a previous study conducted on a sample of terminally ill cancer patients (Bovero et al. 2016), which found only the “Faith” FACIT-Sp-12 subscale as a predictor of the quality of life, highlighted that the two spirituality dimensions characterizing patients’ well-being could be associated in different ways to other psychological variables; (2) it is necessary to promote further studies on the terminal cancer patients’ spiritual well-being, given the importance of this topic as a multidimensional concept. So, the aims of the study were: (1) to explore the relationship between the two FACIT-Sp-12 subscales and coping strategies, anxiety and depression, and the relationship between the two subscales and a set of socio-demographic variables, such as age, sex, religious affiliation and religious practice, and (2) to analyze the relationship between the DSEs and the two dimensions identified by the FACIT-Sp-12 (“Meaning/Peace” and “Faith”), in a dying cancer patients’ sample.

Methods

Setting and Sample

Patients were recruited from November 2015 to November 2016, at “Città della Salute e della Scienza” Hospital of Turin. All the participants were hospitalized, diagnosed with cancer, had a life expectancy of few weeks and had a Karnofsky Performance Status (KPS) (Karnofsky and Burchenal 1949) of 50 or lower. To be eligible for participating in the study, patients were asked to complete a brief cognitive assessment using the Mini Mental State Examination (MMSE) (Folstein et al. 1975). Those who obtained a score of 19 or less indicating cognitive impairment (Folstein et al. 1975) were excluded from the study, because they might not be able to provide a valid informed consent or give accurate answers to the study instruments. Patients who were unable to speak Italian fluently or who had a severe mental disorder were also excluded from the study. The study was conducted in accordance with principles embodied in the Declaration of Helsinki. The study was approved by “Comitato Etico Interaziendale A.O.U. San Giovanni Battista di Torino A.O. C.T.O./Maria Adelaide di Torino”: protocol number 0073054, procedure number 255, date of approval: 04/14/15. Informed consent was obtained from all the participants included in the study. Of the 197 screened patients, 45 were not included in the study: 23 did not meet the inclusion criteria, 14 declined to participate in the research, and eight had incomplete data. The final sample counted 152 inpatients. A study investigator (AB) interviewed the participants at their bedside through the Italian validated versions of self-report and clinician-rated tests, in one or two sessions, within 3 days after their admission to the hospital. Clinical data were collected in a medical chart, while socio-demographic information and the data of the variables, chosen to be investigated, were gathered through a semi-structured oral interview and a set of self-administered rating scales.

Measures

Functional Assessment of Chronic Illness Therapy—Spiritual Well-Being

FACIT-Sp-12 is the most commonly used tool to measure spiritual well-being in cancer patients (Peterman et al. 2002). It is composed by 12 items, underlying two factors (“Meaning/Peace” and “Faith”) (Brady et al. 1999). A peculiar characteristic of this scale is that the wording of the items does not assume a belief in God. Therefore, it can be completed comfortably by an atheist or an agnostic yet touches both traditional religiousness dimensions (“Faith” factor) and spiritual ones (“Meaning/Peace” factor). “Faith” factor contains four items and measures the comfort and strength derived from one’s faith. “Meaning/Peace” factor contains eight items and assesses the sense of meaning, peace and purpose in one’s life. All the items are rated on a five-point Likert scale and range from zero (not at all) to four (very much). The total score ranges from zero to 48, with higher scores representing greater levels of spirituality.

Daily Spiritual Experiences Scale

The Daily Spiritual Experiences Scale (DSES) (Underwood and Teresi 2002; Underwood 2006) evaluates the personal perception of the transcendence (God, the divine) in daily life and the personal perception of the interaction or of the involvement with the transcendence. It is composed of 16 items and is considered as a uni-dimensional measure, although the items are grouped as theistic and non-theistic. The first 15 items are rated on a six-point Likert scale and range from one (many times a day) to six (never or almost never). Item 16 (“In general, how close do you feel to God?”) is answered on a four-point Likert scale (1 = *not at all* to 4 = *as close as possible*). The total score varies from 16 to 94. Lower scores indicate a higher frequency of the spiritual experiences (Underwood 2006, 2011).

Brief Coping Orientation to Problem Experienced

The Brief Coping Orientation to Problem Experienced (Brief COPE) is a 28-item self-report measure used to assess specific coping strategies (Carver 1997). The items are designed to measure 14 conceptually different coping reactions: active coping, planning, positive reframing, acceptance, humor, religion, use of emotional support, use of instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement and self-blame. Each coping scale consists of two items, rated on a four-point Likert scale (from 1 “I have not been doing this at all” to 4 “I have been doing this a lot”).

Hospital Anxiety and Depression Scale

The Hospital Anxiety and Depression Scale (HADS) is a 14-item self-report scale, which presents two dimensions: depression and anxiety (Zigmond and Snaith 1983). The two subscales are both composed of seven questions. The patients rate the

severity of the problems described by the items on a four-point Likert scale ranging from zero to three. The HADS has been validated for its use on cancer patients (Costantini et al. 1999; Bjelland et al. 2002). Scores of eight or more are considered as an indicator of a significant clinical symptomatology (Castelli et al. 2011).

Data Analysis

Descriptive statistics were used to analyze the socio-demographic and clinical characteristics of the sample. Associations between “Meaning/Peace” and “Faith” FACIT-Sp-12 subscales and daily spiritual experiences, coping styles, anxious/depressive symptomatology and age were explored using Pearson’s correlations. Two standard multiple linear forced entry regression models were executed to identify “Meaning/Peace” and “Faith” FACIT-Sp-12 subscales predictors and to detect which one gave more contribution to the explanation of the two dependent variables’ variance. Then, after choosing the predictors with the highest β coefficients, two standard multiple block-wise regression models followed, to further analyze their predictive ability of the dependent variables. The association of “Meaning/Peace” and “Faith” FACIT-Sp-12 subscales with sex, individual religious practice and beliefs were analyzed through t test and one-way ANOVA. All the assumptions of the tests were verified. The tests were two-sided. Bonferroni correction for multiple comparisons was applied and p values less than .003 were considered statistically significant. Statistical analysis was executed using the software SPSS Statistics Version 24.0 (IBM Corp. Armonk, NY, USA).

Results

Socio-Demographic and Clinical Characteristics of the Sample

See Table 1.

Spirituality

Regarding the FACIT-Sp-12 subscales, sample’s mean score on the “Meaning/Peace” factor was 17.28 (SD=4.76) and mean score on the “Faith” factor was 5.58 (SD=2.93). About the total score at the FACIT-Sp-12, sample obtained a mean score of 22.86. (SD=6.35).

Anxiety and Depression

The HADS results highlighted that the 67.1% ($n=102$) of the sample presented clinically relevant anxious symptomatology (mean=8.75, SD=2.74) and that the 86.8% ($n=132$) had clinically relevant depressive symptomatology (mean=11.27, SD=3.38).

Table 1 Socio-demographic and clinical characteristics of the sample

		<i>n</i> (%)	Mean	SD
Age			74.78	11.37
Sex	Male	81 (53.3)		
	Female	71 (46.7)		
Marital status	Single	25 (16.5)		
	Married	85 (55.9)		
	Divorced	6 (3.9)		
	Widow(er)	35 (23)		
	Missing	1 (0.7)		
Educational level	Primary	57 (37.5)		
	Secondary	39 (25.7)		
	Higher secondary	18 (11.8)		
	Graduate	2 (1.3)		
	Missing	36 (23.7)		
Profession	Unemployed	2 (1.3)		
	Employee	17 (11.2)		
	Freelance	4 (2.6)		
	Housewife	1 (0.7)		
	Retired	128 (84.2)		
Caregiver	Spouse	55 (36.2)		
	Son/daughter	57 (37.5)		
	Relative	16 (10.5)		
	Friend	2 (1.3)		
	Nobody	21 (13.8)		
	Legal tutor	1 (0.7)		
Religious affiliation	Catholic, practicing	114 (75)		
	Catholic not practicing	17 (11.2)		
	Atheist	12 (7.8)		
	Protestant	1 (0.7)		
	Evangelic	1 (0.7)		
	Missing	7 (4.6)		
Individual religious practice	Pray	93 (61.2)		
	Do not pray	53 (34.9)		
	Missing	6 (3.9)		

Table 1 (continued)

		<i>n</i> (%)	Mean	SD
Type of cancer	Colon–rectal	32 (21.1)		
	Breast	11 (7.2)		
	Uterus–ovary	4 (2.6)		
	Gastrointestinal	10 (6.6)		
	Lung	46 (30.3)		
	Head–neck	5 (3.3)		
	Hepatic–pancreatic VBP	13 (8.6)		
	Prostate	14 (9.2)		
	Onco-hematology	5 (3.3)		
	Dermatological	5 (3.3)		
	Osseous soft tissue	3 (1.9)		
	CNS	2 (1.3)		
	Other	2 (1.3)		
Stage	Local	40 (26.3)		
	Loco-regional	10 (6.6)		
	Metastatic	101 (66.4)		
	Missing	1 (0.7)		
KPS		32.75	8.61	

n absolute frequencies, *SD* standard deviation

Daily Spiritual Experiences

Patients got a DSES mean score of 51.96 (SD = 15.12).

Coping Styles

The most frequently used coping styles were: self-distraction (mean = 6.45, SD = 1.26), instrumental support (mean = 6.03, SD = 1.21), emotional support (mean = 6.03, SD = 1.16), active coping (mean = 5.54, SD = 1.33), positive reframing (mean = 5.36, SD = 1.19), venting (mean = 5.32, SD = 1.08), planning (mean = 5.24, SD = 1.47), acceptance (mean = 5.05, SD = 1.32) and religion (mean = 4.94, SD = 1.67).

All the results are reported in Table 2.

Associations Between “Meaning/Peace” and “Faith” FACIT-Sp-12 Subscales, Anxiety, Depression and Coping Styles

“Meaning/Peace” FACIT-Sp-12 subscale significantly correlated with depression ($r = -.622$, $p < .001$), anxiety ($r = -.566$, $p < .001$), and the behavioral

Table 2 Descriptive analysis of the sample's scores on the scales

		<i>n</i> (%)	Mean	SD
DSES			51.96	15.12
Brief COPE	Positive reframing		5.36	1.19
	Self-distraction		6.45	1.26
	Venting		5.32	1.08
	Using instrumental support		6.03	1.21
	Active coping		5.54	1.33
	Denial		3.27	1.22
	Religion		4.94	1.67
	Humor		2.93	1.20
	Behavioral disengagement		3.93	1.45
	Using emotional support		6.03	1.16
	Substance use		2.28	1.01
	Acceptance		5.05	1.32
	Planning		5.24	1.47
	Self-blame		2.95	1.30
HADS	Anxiety	102 (67.1)†	8.75	2.74
	Depression	132 (86.8)†	11.27	3.38
FACIT-Sp-12	Meaning/peace		17.28	4.76
	Faith		5.58	2.93
	Total score		22.86	6.35

n absolute frequencies, *SD* standard deviation

†absolute and percent frequencies of patients who had HADS scores over the cutoff (≥ 8)

disengagement ($r = -.369$, $p < .001$), acceptance ($r = .418$, $p < .001$), active coping ($r = .395$, $p < .001$), self-distraction ($r = .390$, $p < .001$), positive reframing ($r = .386$, $p < .001$), planning ($r = .335$, $p < .001$) and humor ($r = .288$, $p < .001$) coping styles.

“Faith” FACIT-Sp-12 subscale significantly correlated with depression ($r = -.275$, $p < .01$), and the religious ($r = .721$, $p < .001$), positive reframing ($r = .679$, $p < .01$), emotional support ($r = .394$, $p < .001$) and instrumental support ($r = .384$, $p < .001$) coping styles.

Associations Between “Meaning/Peace” and “Faith” FACIT-Sp-12 Subscales and the Daily Spiritual Experiences Scale (DSES)

DSES scores significantly correlated with the “Faith” FACIT-Sp-12 subscale ($r = .679$, $p < .001$), but did not with the “Meaning/Peace” FACIT-Sp-12 subscale. ($r = .184$, $p < .05$).

“Meaning/Peace” and “Faith” FACIT-Sp-12 Subscales Predictors

The forced entry regression models identified depression, anxiety, self-distraction, positive reframing, behavioral disengagement, acceptance and active coping as the “Meaning/Peace” FACIT-Sp-12 subscale significant predictors and religious coping, depression, daily spiritual experiences, instrumental support and emotional support as the “Faith” FACIT-Sp-12 subscale significant predictors. Then, block-wise regression models showed that acceptance, active coping, instrumental support and emotional support minimally contributed ($\beta < .200$) to the explanation of the variance of the FACIT-Sp-12 subscales. So, the principal and most explicative “Meaning/Peace” FACIT-Sp-12 subscale predictors were: depression, anxiety, self-distraction, positive reframing and behavioral disengagement. The principal and most explicative “Faith” FACIT-Sp-12 subscale predictors were: religious coping, depression and daily spiritual experiences.

The block-wise regression models are reported in Tables 3 and 4.

Associations Between “Meaning/Peace” and “Faith” FACIT-Sp-12 Subscales and the Socio-Demographic Variables

The analysis evidenced significant associations between the “Faith” FACIT-Sp-12 subscale and sex ($t = -2.862$, $p = .003$), individual religious practice ($t = 5.872$, $p < .001$) and religious affiliation ($F = 9.123$, $p < .001$). Being female, conducting an individual religious practice and having a religious affiliation were associated with a greater spiritual well-being linked to faith.

Table 3 “Faith” FACIT-Sp-12 subscale significant predictors

	B	SE B	β
Step 1			
Constant	.894	.117	
Coping style religion	.278	.022	.716*
Step 2			
Constant	1.163	.170	
Coping style religion	.209	.027	.537*
Depression	-.048	.010	-.250*
Daily spiritual experiences	.012	.003	.277*

Summary of standard multiple linear block-wise regression

$R^2 = .512$ for Step 1, $\Delta R^2 = .127$ for Step 2 ($p < .001$). $n = 152$

b unstandardized regression coefficients, $SE B$ standard error B, β standardized regression coefficients

* p value $< .003$

Table 4 “Meaning/Peace” FACIT-Sp-12 subscale significant predictors

	B	SE B	β
Step 1			
Constant	27.124	1.068	
Depression	-.876	.091	-.622*
Step 2			
Constant	29.475	1.113	
Depression	-.634	.099	-.451*
Anxiety	-.580	.122	-.334*
Step 3			
Constant	19.235	2.233	
Depression	-.450	.091	-.319*
Anxiety	-.468	.110	-.269*
Self-distraction	.873	.212	.232*
Positive reframing	.841	.216	.213*
Behavioral disengagement	-.751	.184	-.229*

Summary of standard multiple linear block-wise regression

$R^2 = .387$ for Step 1, $\Delta R^2 = .83$ for Step 2, $\Delta R^2 = .137$ for Step 3 ($p < .001$). $n = 152$

b unstandardized regression coefficients, *SE B* standard error B, β standardized regression coefficients

* p value $< .003$

Discussion

The purpose of this study was to examine the relationship between the two dimensions of spirituality (“Meaning/Peace” and “Faith”) and coping strategies, anxiety and depression, and a set of socio-demographic variables and to investigate the relationship of the two subscales with the daily spiritual experiences, as referred by end-of-life cancer patients in hospital.

Firstly, it is relevant to evidence that our sample obtained mean scores on the FACIT-Sp-12 lower than those reported by other studies analyzing samples of oncological patients with different clinical features. Specifically, samples of not advanced/advanced cancer patients under curative treatments (Meaning/Peace: $29.5 \pm 3.03/23.56 \pm 3.4$; Faith: 7.16 ± 4.45 ; 11.91 ± 4.5) (Bai et al. 2015; Akturk et al. 2017) and of long-term cancer survivors (Meaning/Peace: 25.65 ± 5.74 ; Faith: 11.70 ± 4.35) (Munoz et al. 2015) showed higher mean scores than ours, composed by end-of-life cancer patients with a life expectancy of few weeks (Meaning/Peace: 17.28 ± 4.76 ; Faith: 5.58 ± 2.93). Data suggested that the spiritual well-being both linked to Meaning/Peace and to faith reduces when patients’ clinical conditions worsen and in nearing death. This supports the strong clinical relevance of detecting and treating spiritual suffering in dying patients.

Concerning the first aim of the study, our results supported past researches, which suggested that both the “Meaning/Peace” and “Faith” factors were negatively correlated with depression (Nelson et al. 2009; Bekelman et al. 2010; Salsman et al.

2011; Brown et al. 2015). However, the “Faith” dimension emerged as the construct that was negatively associated with it the most. These findings suggest how spiritual well-being, achieved by giving a meaning to life or through a religious practice, is helpful to cope with depression. These data are contrary to other studies which underlined that only the search of meaning was a predictor of the level of depression (Brady et al. 1999; Salsman et al. 2011; Bai et al. 2015). Moreover, it endorsed a previous study that pointed out that private religious practice might be a buffer for depression (Bovero et al. 2012). Data concerning anxiety showed that it is a negative predictor of the “Meaning/Peace” factor. The fact that spirituality was correlated with depression and anxiety underlined the significant role of the spiritual state for the daily clinical practice in palliative care and for the preservation or improvement in the emotional distress, such as in the control of symptoms. In fact, it seems that helping terminal cancer patients establishing “Meaning/Peace” in their lives may be beneficial for treating anxiety (Bovero et al. 2016), while those patients, who are open to religious experiences, may benefit from being referred to an appropriate religious support in order to face depression. These results suggested that, with dying patients, it is necessary to deal with their spiritual concerns not only by asking about them, but also by considering the potential impact of the emotional distress of them. Furthermore, taking care of patients’ spirituality means analyzing which one of the two dimensions is predominant, regarding one’s own personal spiritual well-being, in order to prevent anxiety or depressive symptomatology. A further difference between the two dimensions of the spiritual well-being has been found in the relationship with different coping strategies that patients can adopt at the end of life. In this study, the religious coping style was significantly associated with the “Faith” component of spirituality. This finding supports the work of Pargament and colleagues, who studied various aspects of the religious coping (2004). Dying patients may find great comfort in their faith while facing apparently uncontrollable distress. Positive reframing coping style was a significant predictor of the “Meaning/Peace” factor. This finding showed that those patients who can find a new meaning for their situation, by looking at it from a distinct perspective—for instance from a transcendental point of view—or by trying to get the best out of it, tend to have a higher level of spiritual well-being. Self-distraction and behavioral disengagement coping styles were, respectively, positive and negative predictors of the “Meaning/Peace” FACIT-Sp-12 subscale. The results regarding the coping styles evidenced how dying cancer patients, who used coping strategies such as religion, positive reframing and self-distraction, were more able to find strength while dealing with imminent death, either by appeasing emotional distress or by modifying their own perception of the clinical situation (Desbiens and Fillion 2007). Finally, data analysis showed that sex was significantly associated with the “Faith” FACIT-Sp-12 subscale. This result was consistent with the literature. In fact, women were reported to find more strength and comfort in faith, by attending to religious services and participating in prayer every day or more than once a day, and reported a higher use of the religious coping against daily stressors with respect to men (Kalkstein and Tower 2009; Strada et al. 2013; Munoz et al. 2015).

The other aim of this study was to examine the relationship between the daily spiritual experiences and patients’ spiritual well-being. In this regard, findings

suggested that experiencing the transcendence, feeling in touch with the divine, is strictly linked to an enhanced spiritual well-being. Specifically, the personal perception of the transcendence (God, the divine) in the daily life was associated with the “Faith” FACIT-Sp-12 subscale, for which it resulted a significant predictor, as opposed to the “Meaning/Peace” FACIT-Sp-12 subscale. This result highlights that perceived daily spiritual experiences contribute directly to an increased level of patients’ spiritual well-being, represented by the Faith dimension. These data could be explained by the characteristics of the sample: the majority of practicing Catholics and the advanced age of the sample lead to the consideration that the religious traditional cultural background is deeply settled in. Therefore, the daily spiritual experiences, such as feeling touched by the beauty of the creation or feeling a desire to be closer or in union with God, may represent a source of strength, in terms of coping styles, for terminal cancer patients who are experiencing the end of their life. The results obtained from the administration of the DSES test suggested that the DSES and the FACIT-Sp-12, used together, may contribute, through additional information, to the assessment of spiritual well-being in end-of-life patients. Furthermore, the results highlighted the relevance of the integration of therapeutic interventions regarding spirituality, as a multidimensional aspect, in the palliative care, because of its implications for the clinical practice with dying cancer patients.

This study has some limitations. Firstly, the study design is cross-sectional, measuring variables in a single cohort one time, and the nature of the study is essentially descriptive. Secondly, the cross-sectional methodology does not allow to assess if end-of-life patients experienced changes in the spirituality dimensions, while approaching death. Finally, the sample was largely composed by participants who were old and Catholics; therefore, the generalization of these results to other cancer patients’ populations is not possible. There are evidences that suggest a different role of religion and spirituality in people coming from different ethnic and cultural backgrounds. Furthermore, although the statistic models were developed by entering quite a large set of adjusted predictors, there may be incomplete adjustment or unforeseen confounders that were not considered. Further studies might use the FACIT-Sp-12, by dividing the “Meaning/Peace” factor into two subscales, such as “Meaning” and “Peace,” as proposed by some recent studies (Canada et al. 2008; Whitford and Olver 2012; Peterman et al. 2014), along with the DSES, which could allow a better understanding of how religiosity and spirituality influence patients’ health outcomes.

Conclusions

This research suggested that the spiritual well-being is a multidimensional domain of the palliative care. It includes the search of the meaning of life, the faith, and the spiritual beliefs and pushes toward the transcendence, the absolute. Moreover, the findings of this study highlighted that the daily spiritual experiences significantly affect the spiritual well-being in the end-of-life patients and contribute to the patients’ psychological health state. As suggested by Underwood (2006), analyzing how DSEs and other mental and physical well-being aspects are related contributes

to get more useful clinical information. Therefore, this is the first known study that uses the DSES in an end-of-life cancer patients sample and it has shown that the FACIT-Sp-12 and DSES can be used together to perform quantitative surveys on spirituality. Future researches would benefit from the combined use of several different spiritual well-being screening tools, such as the DSES and the FACIT-Sp-12.

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Compliance with Ethical Standards

Conflict of interest All the authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in the study were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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