Spirituality and quality of life in oncologic patients undergoing chemotherapy treatment

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Abstract

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The diagnosis of neoplasia causes a great impact on the life of the person who carries it and this is why the attention to spirituality can improve health condition of those who need chemotherapy. This research aims to study the level of spirituality of patents who are undergoing chemotherapy and thus to establish a relation of it with their quality of life (QOL). Eor such purpose, transversal, observational, analytical and non-controlled methods were performed. Patents a]ending Hospital do Cancer Bom Pastor, in Varginha - MG, answered validated questionnaires regarding quality of life and spirituality. In order to analyze the results, Pearson coefficient and the non-parametric test of Mann-Whitney were applied. It was concluded that the higher the spirituality, the higher the QOL regarding peace. We did not demonstrate what superior level of spirituality improves QOL on physical well-being (PWB), however there was improvement in PWB when the emotional and functional conditions were good. We also demonstrated the importance of social and familiar well-being with total QOL.

Key words: Spirituality. Quality of life. Chemotherapy.

Resumo

O diagnóstico da neoplasia causa forte impacto na vida de seu portador e, por isso, a atenção a espiritualidade pode melhorar a saúde daqueles que necessitam de quimioterapia. O presente estudo objetiva estudar o nivel de espiritualidade dos pacientes que estão em quimioterapia, e relacioná-lo a qualidade de vida (QDV) dos mesmos. Para tanto, utilizou-se método transversal, observacional, analítico e não controlado. Pacientes do Hospital do Câncer Bom Pastor, em Varginha/MG, responderam questionários validados relacionados a qualidade de vida e espiritualidade. Para a análise dos resultados foram utilizados o coeficiente de Pearson e o teste não paramétrico de Mann-Whitney. Concluiu-se que quanto maior a espiritualidade, maior a QDV em relação a paz. Não demonstramos que nível superior de espiritualidade melhora a QDV em relação ao bem-estar físico (BEE), porém houve melhora do BEE quando se está bem emocional e funcionalmente. Demonstramos também a importância do bem-estar sócio familiar com QDV total.

Palavras-chave: Espiritualidade. Qualidade de vida. Quimioterapia.

Resumen

Espiritualidad y calidad de vida en los pacientes con cáncer sometidos a quimioterapia

El diagnóstico de la neoplasia causa un fuerte impacto en la vida de su portador y, por tanto, la atención a la espiritualidad puede mejorar la salud de las personas en necesidad de quimioterapia. El presente estudio tene como objetivo estudiar el nivel de la espiritualidad de los pacientes sometidos a quimioterapia y relacionarla con la misma calidad de vida. El método utilizado fue transversal, observacional, analítico y sin control. Los pacientes del Hospital del Cáncer Buen Pastor en Varginha - MG, respondieron cuestionarios validados en relación con la calidad de vida y la espiritualidad. El análisis estadístico se realizó mediante el coeficiente de Pearson y el test no paramétrico de Mann-Whitney. Se concluyó que cuanto mayor la espiritualidad, más alta la calidad de vida en relación con la paz. No se demostré que el nivel superior de espiritualidad mejora la calidad de vida en relación con el bienestar ffsico (BEE), pero hubo una mejoría del BEE cuando se está bien emocional y funcionalmente. También se demuestra la importancia del bienestar socio-familiar con la calidad de vida total.

Palabras-clave: Espiritualidad. Calidad de vida. Quimioterapia.

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Currently, oncologic diseases represent the second cause of death in most Western countries, only surpassed by the cardiovascular diseases [1]. The diagnosis of neoplasia causes strong impact in its carriers' life [2]. People use different strategies to confront it, in order to deal with this condition, religiousness and spirituality stand out in this study, predominant in large parcels of population with this disease [3].

Confrontation is understood as cognitive and behavioral efforts targeted to handling the requirements or internal or external demands, evaluated as overloads to personal resources [4]. Thus, many individuals use facing strategies to deal with certain stressing situation.

Confrontation strategies are classified in accordance with its functions and may be focused in the problem or in emotion. Confrontation focused in the problem constitutes active strategy to approach the stressing factor, consisting in planning targeted to problems solving. Confrontation strategy, focused in emotion, has the regulation of emotional response as function caused by the stressing factor, and it may be represented by elusive and denial attitude. The religious confrontation may be related to strategies focused both in the problem and in emotion [5].

Religious confrontation is associated, in a positive way, to active confrontation strategies, planning, positive reinterpretation and instrumental and emotional social support [5]. Thus, religiousness/spirituality constitutes important confrontation strategy in face of situation considered as difficult, as it is the case of diagnosis of cancer that yields strong effect in the individual's life, whose treatment is pervaded by stressing events [3].

Religiousness and spirituality appear as major allies for people who are ill [6]. However, they are consequences of the religious confrontation that will predict whether results reflected in the patient's health appear positively or negatively. Positive strategies are those resulting in improvement in mental heath, reducing stress, spiritual growth and cooperativeness.

Negative strategies are related with results pointing toward negative correlations refering to quality of life, depression and physical health, such as a non-adherence to treatment attitude because of divine cure belief [7].

Religious confrontation encompasses religiousness and spirituality, which differ in some features [3]. Spirituality may be understood as a belief that accepts and attempts to develop the spiritual side of humans in opposition to its material portion [8]. It is a dynamic process, personal and experiential [9] that seeks to give sense and meaning to existence, and it may coexist or not with the practice of a religious creed [10]. Religiousness, however, bases itself in the acceptance of certain set of values. Religions are composed by large systems of doctrines and sets of cult rituals proposing to sacralize all phases of people's lives [8]. Some authors suggest that religion is institutional, dogmatic, and restrictive, while spirituality is personal, subjective and it emphasizes life [10].

Currently, cone begins to understand that is not possible to treat isolatedly the disease without considering the socio-cultural environment involving the patient, his emotions and personal cognition about health and the disease [11]. There is a major effort, by some health professionals, to make the sick individual to feel as integral part of the treatment, contributing, therefore, actively to his cure [12].

The development of health sciences led to a desacralized health care practice, in which the spiritual dimension was left out in the assistance to the sick [9]. Nevertheless, the World Health Organization (WHO) defines health as: *ua complete wellbeing state/physical and social and not just the absence of disease or illness* [13,14].

One factor that currently makes spiritual care difficult is the influence of materialistic perspective that valuates overwhelmingly beauty, power, and material conquering, emptying humans of own value, as single, intelligent, free, responsible, and dignified being [15]. Bioethics, as a field of knowledge related both to science and to

humanities, can promote reflection related to spirituality, establishing effective dialogue both with ethical doctrines and those of theological inspiration [16]. In this sense, bioethics may be defined as the guardian of the end of life; a knowledge that put stakes in the need of been aware to the quality of caring in saying good-bye to life – as Pessini [17] theorizes in his studies when he indicated bioethics role in the end of life. The aspects of spirituality and health are included, whenever one thinks about care, fostering bioethical reflection and practice, since both are implied and pervaded among each other.

The importance of religious, spiritual and existential aspects for some patients undergoing treatment only started to become clearer when the barrier preventing physicians in revealing to patients that they had cancer fell down and it enabled psychiatrists and psychologist to speak with patients about their disease [18,19]. Currently, it is increasingly accepted the relation that religiousness and spirituality have in patients' quality of life (QOL) in general and specially in oncological patients [20]. There are, inclusively, studies pointing toward the important relationship between spiritual wellbeing and better QOL [21,22].

It is not known if the influence of spirituality over health happens through mechanism of the *placebo effect* type. However, it is understood now that existential problems, having as background the issue on the meaning of life, are associated with the majority of psychosomatic diseases assailing people worldwide [23]. The effects of spirituality on health may involve useful physiological mechanisms, in addition to our current knowledge that, in time, may become understood [8].

Spirituality, health, and quality of life

Considering the measurement that was missing in the health area, QOL is defined, according to WHO, as the individual's perception of his stand in life, in the context of the culture and system of value in which he lives, and in regards to his objectives, expectations, standard, and concerns [24].

According to Ribeiro [25], currently accepted by the majority of researchers, within the scope of QOL, that this is the concept that encompasses features such as: the personal perception of the sick; the physical, psychological, and social aspects aspect; the commitment to face requirements exceeding individual's resources, involving both objective and subjective aspects. Other dimensions also have been referred, such as spirituality [21].

The interconnection between religiousness/ spirituality and health dates back to the beginning of history, when the healing power was in the hands of those dealing with the spirit (priests, shamans, etc), to whom knowledge to treat the body's illnesses were attributed. The attribution of disease causality, as well as its healing, was related often to religious factors and this association persists in some socio-cultural contexts. The ignorance on the evils that assail humanity led to divinization of the unknown [26].

Possible benefits of spirituality on health may be associated from the simplest physiological reactions - reduction of muscular tension, heart frequency, and blood pressure – as well as in pain and suffering control, with decrease in reactions to stress, leading a greater balance of immunologically modulated responses [8]. According to Waite et all, they may be due partially to the fact that: *attitudes of faith and hope imply an internal control commitment and, subsequently, an ethical path involving the achievement, whose meaning may lead to improvement of self-esteem and a sense of connection with the self and with the others* [27].

Religion may have adverse effect on health when religious beliefs/practices are used to justify negative health behaviors or to replace traditional medical care [28]. It may be used to induce guilt, shame, fear or to justify anger and aggression. Acting as an agent of social control, it may be restrictive and limiting, socially isolating those not in agreement with religious Standards. Generally, however, the major religions with well established traditions and responsible leaderships tend to promote more positive than negative human experiences [29]. There are evidences that people with some kind of spirituality are less assailed by diseases,

live longer, recover faster when sick and present less complications during treatment [8].

In spite of scientific controversy on the effects of spirituality over health, there remains the reflection of Roberts et all: *It should be clear that, if these benefits come from an intervention or a response from God to the appeal s of prayer and spirituality, this will be always beyond what science may or may not evidence* [30].

Spirituality is something inherent to humans [31], manifesting itself on individuals from different cultures through time. It is a realm of subjective elaboration, in which the individual builds symbolically the meaning of his life, seeking to face the vulnerability leashed by situations that point to fragility of human life [15].

Chemotherapy and quality of life

The development and enhancement of currently available treatment for fighting cancer allowed for considerable increase in survival rates [32]. However, little still is known about the psychological and social consequences of these treatments on sick individuals' QOL, already shaken strongly by the psycho-socio-physiological effects of the disease [25,33].

The importance and involvement of spiritual issues were present in the development of QOL studies. Therefore, it is understood that the perspective of quality of life may become mediator between health area and the religious/spirituality issues, facilitating the development of health interventions that are spiritually based due to, at least, two reasons: because it is a more recent area of knowledge and, therefore, with less prejudice related to research in spirituality/religiousness and the construct of quality of life be more comprehensive and multi-dimensional, requiring the engagement of professionals from different areas of knowledge for its better understanding, making it multi-disciplinary [34].

There is an increasing interest in understanding the effect of faith over health. There is interest and greater opening for the study and inclusion of the topic at the academic and research level [35]. Thus, one proposes the discussion about the importance of providing this care to patients that demand for it.

Objective

This paper aims at studying the level of spirituality in oncological patients and correlating it to quality of life.

Methodology

The study was of the transversal, observational, analytical, individual, and non-controlled type. Data collection was carried out during the period comprising March 12 and September 20, 2010. The sample was outlined with patients from the *Bom Pastor* Cancer Hospital, in Varginha, Minas Gerais, after authorization by the institution's ethics committee.

Patients responded to validated questionnaires related to quality of life and spirituality. In order to analyze the results, Pearson's coefficient and Mann-Whitney non-parametric test were used. SPSS 12.0 was the software used.

The criteria that defined participation were: signing the free and clarified consent term; obligatoriness of been under treatment for at least one month; age over 18 years old when filling up the questionnaires and confirmed diagnosis through analysis of medical records. In order to characterize the sample, a socio-demographic and clinical questionnaire was used, seeking to get information from patients such as age, gender, civil status, schooling, work status, oncological group, chemotherapy treatment period, and if there was recurrence or not.

In addition to collect data for the socio=demographic characterization, two main validated instruments were used: spirituality - a scale to evaluate spirituality in health context, provided by the author Ms. Candida Pinto, with prior authorization – and the Fact Sp (release 4), comprised by Functional Assessment of Cancer Therapy General (Fact-G) and Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (Facit-Sp 12) — provided by the Functional Assessment of Chronic Illness Therapy organization (Facit), which made them available in the validated version for Portuguese.

The Spirituality questionnaire [26] (at the end) has five items quantifying individual's agreement

to the issues related to spiritual dimension:
Esp 1 – my spiritual/religious beliefs give meaning to my life; Esp 2 – my faith and beliefs give strength in difficult times; Esp 3 – I see the future with hope; Esp 4 – I feel that my life changed for better; Esp 5 – I learned to give value to the small things in life.

Two subscales were obtained, one comprised by two items (Esp 1 and Esp 2) referring to the vertical dimension of spirituality, designed as "*beliefes*", and another comprising three items (Esp 3, Esp 4, and Esp 5) referring to the horizontal dimension of spirituality, designed as "*hope/optimism*". There was a scoring for each reply varying from *"Do not agree"* (1), *"Agree slightly*" (2), "*Agree enough*" (3), "*Agree totally*" (4). Quoting of each subscale was done by means of the average of its items. Example: beliefs - (Esp 1 + Esp 2)/2; hope/optimism - (Esp 3 + Esp 4 + Esp 5)/3. The higher the score obtained in each item, the higher the agreement with evaluated dimension.

Fact-Sp (release 4) comprises two scales: *Functional Assessment of Cancer Therapy General* (fact-G) [36] and *Functional Assessment of Chronic illness Therapy-Spiritual Well-Being Scale* (Facit-Sp 12)[21].

Fact-G (at the end) is an overall QOL functional scale, comprised by 27 items evaluating wellbeing in four dimensions: physical (Befi), social/family (Besf), emotional (BEE) and functional (BEF). Befi evaluates symptomatology; Besf, the social support and communication; BEE, humor and the emotional response to the disease; BEF evaluates the extent to which the sick individual may and enjoys participating in normal daily activities. The reply to each item was indicated by a greater or lesser agreement/disagreement with the statement, pursuant to a Likert type scale with the following options: 1) "*Not at all"*; 2) "A little*"*; 3) "*More or less*"; 4) "A lot"; 5) "Very much". In order to compute QOL total score, one adds the scores for the four subscales. Higher scores indicate higher QOL [37].

Facit-Sp 12 [21] is a 12 items questionnaire that intends to evaluate the spiritual wellbeing, developed with the help of oncological patients, psychotherapist and religious/spiritual experts (hospital chaplains) whom it was requested to write which features of spiritualities and faith that have contributed most toward patients' QOL. The most indicated features are related to existential and faith issues: meaning/purpose for life, harmony, peace, and a feeling of strength and comfort transmitted by individual faith [38].

Facit-Sp 12 was developed for use regardless of religious beliefs [39]. The instrument has two subscales: "*meaning/peace*" with eight items (I am in peace, I have a reason to live, my life has been productive, it takes me a lot to have peace of mind, I feel a purpose for my life, I am capable to find comfort in myself, I feel in harmony with myself, lacks meaning and purpose for my life) and "*faith*" with four items (I find comfort in my faith or spiritual belief, my faith or spiritual beliefs give strength, my illness has strengthened my faith or spiritual beliefs, regardless of what may happen with my disease, all will end well). In order to get total score, one must add the scores for the 12 items. The higher scoring, the higher is the spiritual wellbeing [37].

The researcher herself submitted the questionnaires to patients, who, according to Facit.org guidance, interviewed and assisted patients in filling up the questionnaires, using a printed plate with the options for replying and both participants in the interview visualized it. One opted for the interview due to interviewees' low schooling level, while some of them were illiterates. The submission of the interview was considered as adequate given the interviewer's training, conducted as to get non-biased responses. Filling order of the questionnaire was random. Patients had the option to ignore the item, if they did not feel that certain question did not apply to them. The interviewer drew a circle around the most applicable response.

Considerations from Facit organization, sent by *email* to the researcher, showed a multi-centric study with oncologic and HIV patients (n=1,227) aimed at testing the psychometric properties and statistics equivalence of the English and Spanish versions for the Facit subscales, considering the literacy level (low and high) and the submission manner (interview and self-administration). The technical equivalence between the submission modes was demonstrated in patients with high literacy level.

There was no difference in data quality or in average scores of QOL scoring after adjustment for evaluating performance, socio-economic level, gender, and age. The technical equivalence between the Facit questionnaire's submission modes allowed for impartial evaluation of the chronic diseases impact and their treatments in patients with different background.

Results

Descriptive analysis

The socio-demographic and clinical characterization of the sample comprising 33 patients were represented by: average of 54 years old; 61% of participants were females; 76% were married; 36.4% had completed basic education, and 70% were unemployed. Out of evaluated oncological groups, 39.4% had cancer in the digestive system; 33.3% had breast cancer and 21.2% in other groups. Concerning effective treatment time, the majority (84.8%) encompassed between one and three years; 72.7% treated for the first time, and 27.3% recurrences.

Table 1. Socio-demographic and clinical characterization of the sample

Socio-demographic and clinical characterization		Absolute number	Percentage
Gender	Male	20	60.6
	Female	13	39.4
	Total	33	100.0
Age average		54.27*	
Civil status	Single	25	75.8
	Married	3	9.1
	Divorced	3	9.1
	Widower	2	6.1
Schooling	Did not attend school	2	6.1
	Completed basic education	12	36.4
	Incomplete basic education	6	18.2
	Completed high school	7	21.2
	Incomplete high school	1	3.0
	Completed higher education	1	3.0
	Graduate school	4	12.1
Work status	Student	1	11.1
	Employed	9	27.3
	Unemployed	23	60.7
Oncologic group	Breast	11	33.3
	Hematology	1	3.0
	Digestive system	13	39.4
	Urology	1	3.0
	Others	7	21.2
How long do you take chemotherapy?			
	1- 3 yrs	28	84.8
	4 - 6 yrs	3	9.1
	7 - 9 yrs	2	6.1
	10 yrs or more	-	-
Did you have or are under recurrence?			
	Yes	9	27.3
	No	24	72.7

Age average

Concerning the Spirituality questionnaire, a total value for spirituality was set by joining two dominions – beliefs and hope/optimism - as follows: Total spirituality = (2* beliefs + 3° hope/optimism) /5. Respectively, minimum/maximum and average scoring for the beliefs and hope/optimism dominions were 3.0/4.0 and M= 3.9 and 2.6/4.0 and M= 3.7, and for total spirituality, 3.2/4.0 and M=3.8. The score obtained by the majority of patients in both dominions presented scores equal to 4. Thus, patients with high spirituality were considered those with score equal to 4 (45.5%); and in the other group patients with lower scores (54.5%).

Table 2. Spirituality and its subscales

	Average	Median	Standard deviation	Minimum	Maximum
Beliefs	3.9	4.0	0.22	3.0	4
Hope/optimism	3.7	4.0	0.38	2.6	4
Total spirituality	**3.8**	**3.8**	**0.22**	**3.2**	**4**

Table 3. Spirituality levels

	Beliefs		Hope/ Optimism		Total spirituality	
	N	%	N	%	N	%
Low spirituality	4	12.1	14	42.4	18	54.5
High spirituality	29	87.9	19	57.6	15	45.5
Total spirituality	**33**	**100**	**33**	**100**	**33**	**100**

Concerning the Facit Sp questionnaire release 4, comprising dominions Fact G and Fact Sp 12, the Score obtained by patients is in Table 1. It is worthy of notice that Fact G is the summation of the first four items of the quality of life scale (physical, social / family, emotional and functional wellbeing) and Fact Sp 12 is summation of the last two items of the quality of life scale (Additional concerns: peace and faith).

Table 4. Facit Sp release 4

Categories	Average	Median	Standard deviation	Minimum	Maximum
Physical wellbeing	8,.7	7.0	6.92	0.0	28
Social/family wellbeing	24.8	26.8	4.52	8.2	28
Emotional wellbeing	7.0	6.0	3.74	4.0	19
Functional wellbeing	22.3	25.0	5.98	7.0	28
Fact G	**62.8**	**61.0**	**8.69**	**37.2**	**90**
Additional concerns: peace	22.8	24.0	3.21	9.0	26
Additional concerns: faith	15.0	16.0	1.60	12.0	16
Facit-Sp 12	**37.8**	**40.0**	**3.86**	**23.0**	**42**
Score Fact-Sp (release 4)*	**100.6**	**101.0**	**9.81**	**69.2**	**124**

** Score Fact Sp (release 4) = Fact G + Facit-Sp 12*

In addition to the correlation analysis between the spirituality and quality of life scales, there was the interest in comparing the results of the scale of quality of life between the groups with low and high spirituality group. The tests used in the study will be described in each topic.

Statistics analysis

Correlation of spirituality and quality of life scales (Facit Sp release 4)

In order to check these correlation between scales, the Pearson's coefficient was used. It is known that the closest to 1 or –1, the stronger is the correlation. The existence of linear correlation between variable may indicate that the higher a value, the higher is the other (positive correlation), or still, the higher a value, the lower is the other (negative correlation).

Values above 0.8 (80%) were considered as strong correlations and as moderate correlation values for Pearson between 0.5 and 0.7 (50 to 70%). Correlations below 0.5 (50%) were considered as low.

- ***Items of the spirituality scale***

One can see in table below that all correlation between the spirituality dominions were low, except for the "hope/optimism" dominion and total spirituality, with correlation level of 92.3%.

Table 5. Correlations of the Spirituality subscales

	Beliefs	Hope/ optimism	Total Spirituality
Beliefs	1		
Hope/optimism	-0.255	1	
Total spirituality	**0.137**	**0.923**	**1**

- ***Items of the quality of life scale***

In view of using the do Facit-Sp 12 (release 4), strong correlations between the quality of life scale dominions and some correlations considered as moderate were identified. The strong correlations were: physical wellbeing and emotional wellbeing (73%); physical wellbeing and functional wellbeing (74%). Additional concerns: peace and Facit-Sp 12 (91.4%) and Fact G and Facit Sp release 4 (92%). In table below, we highlight moderate correlations in pink and the strong correlations in blue.

Table 6. Correlations of the Facit-Sp 12 subscales

	BeFi	Besf	BEE	BEE	Peace	Faith	Fact G	Facit-Sp 12	Fact-Sp (release 4)
Physical wellbeing	1								
Social/family wellbeing	-0.254	1							
Emotional wellbeing	0.730	-0.221	1						
Functional wellbeing	-0.734	0.508	-0.529	1					
Additional concerns: Peace	-0.316	0.309	-0.356	0.446	1				
Additional concerns: Faith	-0.271	0.313	-0.324	0.405	0.201	1			
Fact G	0.473	0.572	0.532	0.140	0.063	0.086	1		
Facit-Sp 12	-0.375	0.387	-0.430	0.538	0.914	0.581	0.088	1	
Fact-Sp (release 4)	0.271	0.659	0.302	0.336	0.415	0.305	0.920	0.471	1

Spirituality scale *versus* quality of life

It was seen that all correlations between the spirituality scale (beliefs and hope/optimism) and quality of life (Facit Sp release 4) were low, except in relation to "peace" dominion (Fact-Sp 12), which obtained moderate correlation with the hope/optimism and total spirituality dominions, which presented a correlation level around 55%.

Comparison of the average in quality of life related to categories of spirituality dominions

Mann-Whitney non-parametric test was used for the comparison between the average in quality of life scale and the two categories of spirituality dominions, since there were a small number of patients in some of the evaluated groups. A significance level of 5% for the test was considered. Thus, it was considered that there was a statistically significant difference between the instrument when p-value was lower than 0.05.

There was difference between groups with high and low spirituality related to physical wellbeing, emotional wellbeing and Fact-Sp 12, evidencing: 1) patients with high spirituality presented, in average, lower scoring in relation to physical wellbeing than those with lower spirituality (p=0.020; p<.05); 2) patients with high spirituality presented, in average, lower scoring in relation to Fact-Sp 12 than those with lower spirituality (p= 0.024; p<0.05).

It was seen, considering the dominions in the Spirituality questionnaire, that there was not difference between groups with high and low beliefs (p=0.05) for any of the variables. However, there was difference between groups with high and low hope in relation to physical wellbeing, emotional wellbeing and Fact-Sp 12, evidencing: 1) patients with high hopes presented, in average, lower scoring in relation to physical wellbeing than those with lower hope (p= 0.018; p<0.05); 2) patients with high hopes presented, in average, lower scoring in relation to emotional wellbeing than those with lower (p=0.033; p<0.05); 3) patients with high hopes presented, in average, higher scoring in relation to Fact-Sp 12 than those with lower hopes (p=0.048; p<0.05).

Discussion

This article had as objective to evaluate the level of spirituality in oncological patients and to correlate it with the quality of life. Therefore, the following analyses were performed:1) correlation of the spirituality scale with two dominions (belief and hope/optimism) with the quality of life scale (total and dominions); 2) comparison of results of the quality of life scale between low and high spirituality groups.

The first relation found was considered as moderate between the spirituality scale (total and hope/optimism dominions) and the peace dominion (Facit-Sp 12), indicating that the higher the spirituality, the higher is the QOL in relation to peace.

Concerning the Fact Sp (release 4) questionnaire, which evaluates the quality of life, we can make a correlation between this study results and those by Pestana et al [40]. In this, statistically significant differences were found between Besp and Fact Sp release 4 (r 23 = 0 .654; p < .01), Besp and BEE (r 23 = 0.660; p < .01), Besp and Befi (r 23 = .549; p < .01), and between Besp and BEF (r 23 = 654; p < .01). According to authors, the correlation seen between Besp and BEE (r 23 = .660; p < .01) seemed to show the important role that spirituality performed in oncological patients' psychological and affective wellbeing.

There was, in this study, strong correlation between Fact G and Fact Sp (release 4) (0.92), which indicates that spirituality influences quality of life. These results are consistent with those found by Brady [21] et al., who referred that QOL cannot be evaluated duly if the spirituality dimension is not include, since it seems to contribute strongly toward oncological patients' overall QOL. Incidentally, authors go further when they refer that, if spirituality represents such strong factor in the life of sick individuals,

the simple fact that it is not included in any study attempting to measure QOL can lead to the real value of QOL of these patient is not evaluated duly [40].

There was strong correlation between the dominions of Befi with BEE (0.73) and BEF (-0.74), indicating that there is relation of physically improving the quality of l ife when there is emotional and functional wellbeing. The relation of Fact-Sp 12 with the dominion peace (0,92) showed that individual peace provides higher spirituality. It may be stated that the sick individual presenting a higher Besp is lead to experience higher and deeper understanding about the meaning and purpose of life, quitting the focus on his own problems, and developing a more holistic view about life.

This new focus, in its turn, may cause the decrease in chronic stress rates to which oncological patients usually are subject, allowing them to get distracted and relaxed, leading the organism to produce what Benson denominated as the relaxation response. By relaxing, the organism stops exerting such negative pressure over the immunological system, allowing it to recover its strength, helping in recovery and, thus, contributing to healing [41].

Moderate correlation between Besf and BEF (0.508), total Fact G (0.572) and Fact Sp release 4 (0.659) was obtained, which reinforces the Idea that family support is a major indicator in the improvement of patients' quality of life, both functionally and spiritually. And moderate correlation of emotion wellbeing with functional wellbeing (0.529) and total Fact G (0.532).

Considering, now, the comparison between QOL scale with the groups with low or high spirituality, it was seen that patients with high spirituality presented, in average, lower scoring in relation to physical wellbeing than those with low spirituality. This contradicts the study of Pestana [35] et al., which indicated that individuals with higher Besp levels presented better QOL at the physical level. Carlson and Bultz [42] found that in addition to the benefits that this type of interventions could provide in patients' QOL, they could bring also some financial benefits by helping to decrease health costs. Incidentally, the cost of cancer treatment is in the order of the day since current health systems are unable to bear with all cost inherent to its treatment for much longer [43-45].

Still, it was found that patients with high spirituality presented, in average, higher scoring in relation to the Fact-Sp 12 than those with lower spirituality (p= 0.024; p<0,05).

The religious/spiritual coping (RSC) – use of religion, spirituality or faith to deal with stress and problems of life – showed to be a variable associated to QOL. Using a global QOL index (five items scaled by the observer/researcher in the Likert scale (3 points), Spitzer et al. [46], as well as Pargament et al. [47], verified that higher use of positive RSC did not correlate with QOL or depression, using samples with 551 hospitalized elders who were severely ill, and 256 people victims from the Oklahoma bomb attack who had undergone stressing events.

Nevertheless, greater use of negative RSC correlated moderately with worsened QOL levels and greater depression. Authors reached the conclusion that religion/spirituality can be a source for relief or discomfort, for solving problems or causing stress, depending on how the individual relates to it, that is, if he uses positive or negative RSC strategies.

In the two years follow up of the hospitalized elders sample in Pargament et al. Study, with 268 respondents (29.5% dead; 25.5% loss), the RSC was the predictor of spiritual results and changes in the mental/physical health. The positive RSC was associated with health improvements, and the negative RSC was retrospective predictor of decline in health: limited spiritual outcomes, worsened functional status in daily life activities, greater depression and lower QOL. Authors reached the conclusion that patients Who continuously struggled with religious issues may be particularly at risk with health problems [47], due to use of negative RSC [34].

In this study, one agrees with Panzini et al [34] when they state that all available resources that incentive healing, the psychological adjustment and Better QOL of patients should be seriously considered, inclusively those of spiritual order. They should have their validity evidenced or infirmed, not in accordance with the criteria from just part of the scientific community, regardless of its importance, but rather corroborated by the implications that they might cause.

The same authors state, additionally, that in a layman society such as ours, the spiritual continues not been acknowledged or worse, it is under suspicion for been confounded with the religious. In this scenario, the denial of death and the technical omnipotence have contributed greatly for the spiritual dryness that it is seen daily in the majority of health care units. The caring provided by health professionals to patients' subjective life, to their affectivity and interior life can, effectively, contribute decisively for their physical, psychological, and spiritual rehabilitation and, thus, increasing the overall QOL.

Final considerations

We find that the higher is spirituality, the higher is the QOL in relation to peace. This leads to reflection that we should not focus only the disease, but that we should consider its subjective features as well, providing greater interior peace, regardless of the disease stage [48]. Barros [49] states that in spite of been important to acknowledge the pathology, excessive concentration in the disease may distance us from the true role that is fit for all, particularly giving potential to what is best in each individual so they can live the most intensively as possible, seeking to bring happiness and harmony to their lives.

It was not shown that patients with higher level of spirituality improve QOL in relation to physical wellbeing. However, there was physically improvement in the quality of life when there is emotional and functional wellbeing. This indicates that one should not approach this topic in patients' caring, since the QOL includes physical, psychological, social, and spiritual aspects. Socio-family support (BEF) has shown as important component in the overall QOL, as well as in the functional and spiritual wellbeing.

Still, we would like to refer that this paper present some major limitations: a) reduced sample; b) half of the sample comprised by patients with low schooling level, which in some way may have influenced some of the result. The reduced sample results in relatively large confidence intervals around observed correlations. For example, cwith the number of cases observed in this study, one correlation in the order of r = 0.6 may be seen, in the population of oncological patients, as low as 0.3 or as large as 0.8. Future studies, with larger number of participants may increase the accuracy level in the estimates of the relationship magnitude [40].

Whenever caring is thought of, spirituality, health and bioethics aspects are included as they are concepts that are implied and interwoven [32]. Bioethics subsidizes respects to religious and spiritual aspects since it primes for plural character in analysis and discussion of real situations and avoiding, thus, assuming sectarian stands [50].

Bioethics and spirituality can be seen as tools to assist surpassing the healing Idea of health, turning it to potentialize the individual, seen in his multiple dimensions [15]. *Bioethics can promote, fulfilling its bridging role for the future, the interface between science and religion, which hides the century old polemics among "truths" of an atheist and the religious. The discipline can contribute to establish Standards for ethical, pacific, and harmonic companionship by exhorting those who profess different religions and sects toward reflection and dialogue* (...) *Thus, it becomes explicit that by pointing the benefit provided by this type of caring and the conflict that may derive with its suppression, bioethics Will be contributing not only for the incorporation of the spiritual dimension in the conception of the human being, but also for reaffirmation of this dimension as cultural need and, therefore, inherent to human dignity itself* [51].

In addition to reason, it is necessary to aggregate intuition, emotion and accuracy of perception sensitive to scientific knowledge [52].

According to Alves and Selli [15], in terminal stage, Feelings of fear and anguish manifest often in the patient, which the nursing team must identify, respect, and treat. One does not proposes a religious speech, since respect for each individual's beliefs is unquestionable, as they foresee both spirituality and bioethics, but rather a comprehensive shelter in which one can show Love and interest for life, helping in making death more serene.

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Spirituality Questionnaire
(Pinto C & Pais-Ribeiro JL)

The following sentences/expression refer to your spirituality/your personal beliefs, and the way they affect your quality of life. Please, check with an **X** the option that Best expresses your state in the **past week**.
There is not right or wrong response.

	Do not agree	Agree a little	Agree very much	Fully agree
1 - My spiritual/religious beliefs give meaning to my life	1	2	3	4
2 – My faith and beliefs give me strength in difficult times	1	2	3	4
3 – I see the future with hope	1	2	3	4
4 – I feel that my life has changed for better	1	2	3	4
S – I learned to value the little things of life	1	2	3	4

Facit-Sp 12
Please, make a circle around the number that best corresponds to your state in the past 7 days.

	Additional Concerns	Not at all	A little	More or less	Much	Very much
Sp1	I feel in peace	0	1	2	3	4
Sp2	I have a reason for living	0	1	2	3	4
Sp 3	My life has been productive	0	1	2	3	4
Sp 4	It takes a lot to feel peace of mind	0	1	2	3	4
Sp S	I feel that my life has a purpose	0	1	2	3	4
Sp 6	I am capable to find comfort inside myself	0	1	2	3	4
Sp 7	I feel in harmony with myself	0	1	2	3	4
Sp 8	My life lacks meaning and purpose	0	1	2	3	4
Sp 9	I find comfort in my faith or spiritual beliefs	0	1	2	3	4
Sp 10	My faith or spiritual beliefs give me strength	0	1	2	3	4
Sp 11	My disease has strengthened My faith or spiritual beliefs	0	1	2	3	4
Sp 12	Regardless of what happens to my disease, all will end up well	0	1	2	3	4