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The Relation between Awareness of Cancer Diagnosis and Spiritual Health among Cancer Patients

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ABSTRACT

Introduction: Disclosure of cancer diagnosis is one the main challenges in caring of patients with cancer since it may have negative effects on the spiritual health of patients. No study has ever been performed in Iran to investigate the relationship between awareness of cancer diagnosis and spiritual health in cancer patients. Therefore, the present study aimed to review the effects of awareness of cancer on spiritual health in patients with cancer. ***Methods:*** This was a descriptive-comparative study conducted in Shahid Ghazi Tabatabaei University Hospital in 2009. The subjects included 150 patients aware of their cancer diagnosis and 150 unaware patients. The patients were selected through convenient sampling method. Using a questionnaire, the patient's spiritual health was assessed. Data analysis was conducted in $SPSS_{17}$ using descriptive and inferential statistics. ***Results:*** Results showed the mean (SD) of spiritual health among aware and unaware patients to be 75.1 (3.8) and 75.4 (3.9), respectively. Statistically, there was no significant difference between the spiritual health of the two groups ($p = 0.96$). ***Conclusion:*** These findings showed that awareness of cancer diagnosis had no effects on spiritual health of patients. It is not surprising considering Iranian culture. However, confirmation of this finding requires further studies.

Introduction

Cancer is the third leading cause of mortality worldwide. In fact, approximately 12% of the world's mortalities occur due to this disease.[1] Similarly, in Iran, after cardiovascular and pulmonary diseases, it is the third cause of mortality. The statistics show that incidence of cancer in Iran is 20 males and 16 females per 100,000 people.[2]

One of the most complicated issues in the field of cancer care and treatment of cancer patients is informing patients about their disease diagnosis. In other words, one of the most challenging subjects for many experts in medical and nursing care is informing the cancer patients.[3] Given this popular belief that bad news cause psychological distress, sadness and anxiety,[4] in order to protect their patient, sometimes families ask the relevant physician or nurse to hide medical information about cancer diagnosis.[5] However, attitudes toward this issue differ based on time and cultures. In every culture, cancer is one of the most terrible diseases which is not independent from cultural factors like any other disease. Cultural aspects, values and behaviors along with life experiences, socioeco-

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nomical status and personality differences are determinants of how patients and their families cope with the concept of cancer.[6] While many cultural groups believe that open and frank discussion about cancer is cruel and inhumane and must be avoided, others consider hiding medical information from patients immoral and unethical.[7]

Spiritual health is a unique energy that synchronizes physical, mental and social aspects required to cope with the disease.[8] Awareness of cancer diagnosis causes a significant increase in spiritual needs.[9] Disease diagnosis causes reduction in self esteem, faith and religious beliefs. Moreover, it causes disruption in interpersonal relationships, solitude and spiritual crisis.[10] Spiritual health is considered as one of the major aspects of human's health. It provides integrated and harmonized relations between the internal forces which will finally lead to stability in life, peace, harmony, close relationships with relatives, God, society and the environment.[11]

Religion and spirituality can provide an important source of strength for cancer patients and can improve their quality of life and reduce their stress.[12] Many studies that thoroughly investigated the importance of religion and spirituality in the outcomes achieved by cancer patients confirmed its positive effects.[13] Many cancer patients believe religious beliefs and having spiritual health to deliver a source of adaptation with treatment. Numerous studies have indicated returning to spirituality as one of the major adaptation responses in cancer patients. Such return has a very important role in promoting acceptance and quality of life among patients.[14,15] However, the role of spirituality in spiritual health of cancer patients has been given less attention. Furthermore, spiritual health is greatly influenced by cultural and religious factors. Since no Iranian study has ever evaluated the relation between awareness of cancer diagnosis and spiritual health, the present study aimed to review the mentioned relation.

Materials and methods

This was a descriptive comparative study conducted in Shahid Ghazi Tabatabaei University Hospital affiliated to Tabriz University of Medical Sciences in 2009. The subjects included all the patients who referred to this hospital at the time of final cancer diagnosis to be treated or to relive their symptoms. The study population was divided into two groups of 150 who were aware or unaware of their disease. All patients were included if they aged over 18 years, were able to answer the questions, and did not mind to participate. Aware patients were only studied if they had been diagnosed with cancer at least 6 months prior to the study. The exclusion criteria for all subjects were having chronic physical diseases and history of chronic mental diseases, particularly major depression. Finally, two patients were excluded due to major depression confirmed by a psychiatric (1 in each group). However, patients with other levels of depression were not excluded. In order to avoid confounding factors, the patients of both groups were justified in terms of age, sex and educational level. Patients were selected through available sampling method. The data of the 300 patients was collected within six months.

A two-part questionnaire was used to review the spiritual health of patients. The first part included some demographic and disease-related characteristics such as age, sex, marital status, educational level, duration of cancer and behavior of family members. Paloutzian and Ellison's Spiritual Well-being Scale was used to measure religiousness and existential dimensions of spiritual health. The scale consisted of 10 questions related to religious well-being and 10 regarding existential well-being whose sum was considered as the total score of spiritual health. The total scores ranged between 20-120. The responses to

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these questions were categorized according to a 6-choice Likert Scale from *completely disagree* to *completely agree*. In positive questions "completely disagree" and "completely agree" were scored as 1 and 6, respectively. However, the scoring was the opposite for negative questions. Higher scores indicated higher levels of spiritual health. Since the Persian version of the scale was needed to be used, it was translated to Persian by some experts. In order to evaluate the reliability of the translation it was retranslated to English by an expert. Then, the compliance rate of the translation with the original text was measured. The validity and reliability of the original questionnaire have already been confirmed by various studies in different cultures.[16] The validity of the Persian version was confirmed by 13 faculty members of Tabriz University of Medical Sciences through content and face validity. Necessary modifications were applied. The reliability of the questionnaire also was assessed through test re-test method, i.e. it was given to 15 patients to be completed twice with a 10-day-interval. The correlation coefficient between the two times was calculated as 0.91.

In order to collect data, the researchers referred to receptions of Shahid Ghazi Tabatabaei University Hospital and identified patients with inclusion and exclusion criteria. One of the main challenges of the present study was to determine which patients knew or did not know their definitive diagnosis. Thus, after consultation with experienced oncologists and professors of medical ethics, close relatives of the patients were asked since it was the only practical way to get information. Unlike many western countries, disease number of diagnoses are told to first degree relatives in Iran. They would then decide whether or not to inform the patients. The relatives were questioned in privacy and confidentiality and the answers of all questions were carefully confirmed by the patients. In case of unaware patients, after establishing appropriate relationships with the subjects, questions like "*Why have you been admitted?*" or "*What is your problem*?" were asked to confirm their unawareness. In addition, as recommended by the Local Research Ethics Committee of Tabriz University of Medical Sciences, unaware patients were told that the study aimed to review spiritual health. Therefore, cancer was not mentioned at all during all the data collection stages. After explanation of the study objectives, informed consents were obtained. Thereafter, the data of the patients was collected. While the literate patients wrote their own information, the researchers registered the information through interviewing for the illiterate or low educated patients.

Data analysis was performed in $SPSS_{17}$. Descriptive statistics such as number, percentage, mean and standard deviation was used to describe disease-related and demographic characteristics as well as the level of spiritual well-being. Independent t-test was also used to compare the spiritual health level in patients of the two groups.

Results

Some disease-related and demographic characteristics of aware and unaware patients are given in Table 1. As indicated in Table 1, there was no significant difference between the two groups in terms of age, sex, educational level, marital status, duration of diagnosis and behavior of family members.

In order to investigate the main objective of the study, the level of spiritual health in patients of aware and unaware groups were compared. The results showed that mean (SD) spiritual health in aware and unaware patients was 75.1 (3.8) and 75.4 (3.9), respectively. Statistically, there was no significant difference between the two groups in terms of spiritual health levels ($p = 0.96$; $df = 297$; $t = -0.56$).

Discussion

The results of the present study showed that spiritual health levels in aware and unaware cancer patients had no statistically significant difference. In other words, awareness of

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Table 1. Some disease-related and demographic characteristics of aware and unaware cancer patients

Variables		Aware group n (%)	Unaware group n (%)	Statistical indicators
Sex	Male	76 (52.8%)	72 (46.2%)	p = 0.25; df = 1; χ^2 = 1.31
	Female	68 (47.2%)	84 (53.8%)	
Marital status	Single	33 (22.9%)	27 (17.3%)	p = 0.47; df = 2; χ^2 = 1.49
	Married	103 (71.5%)	119 (76.3%)	
	Divorced	8 (5.6%)	10 (6.4%)	
Education	Illiterate	56 (38.9%)	57 (36.5%)	p = 0.05; df = 4; χ^2 = 11.06
	Elementary	20 (13.9%)	38 (24.4%)	
	Secondary	14 (9.7%)	16 (10.3%)	
	High school	22 (15.3%)	28 (17.9%)	
	Academic	31 (21.5%)	17 (10.9%)	
Behavior of family members	Excellent	62 (43.1%)	66 (42.3%)	p = 0.69; df = 3; χ^2 = 1.43
	Good	55 (38.2%)	62 (39.7%)	
	Average	25 (17.4%)	23 (14.7%)	
	Poor	2 (1.4%)	5 (3.2%)	
Age (year)	Mean (SD)	43.9 (16.3)	46.6 (17.1)	p = 0.15; df = 298; t = 11.41
Duration of diagnosis (year)	Mean (SD)	2.2 (2.2)	1.8 (2.6)	p = 0.17; df = 298; t = 1.35

cancer diagnosis had no significant negative effect on spiritual health of cancer patients. It is not surprising though since Iranians are religious people and who usually depend on religion to cope with different crises.

The results of this study were not in accordance with other studies conducted in other countries. For instance, Leung et al. showed that aware Taiwanese patients had higher spiritual health and quality of life. They believed religious and spiritual comfort to be even more important than mental and physical health for cancer patients who are at the final stages of their illness.[17] In Cuba, Justo et al. indicated that informing patients about their disease diagnosis increased spiritual health of cancer patients.[18] Gall studied religious beliefs of adaptation rates with the disease diagnosis among 34 patients with prostate cancer in Canada. The results showed that religious conformity had an important role in adaptation of patients with cancer, i.e. religious beliefs had positive effects in cancer patients.[19] The inconsistencies observed between the mentioned research and the present study could be due to different accuracy levels and investigation tools. Thus, further clarifications are required.

Unfortunately, no Iranian study had investigated the effects of cancer diagnosis awareness on the level of spiritual health in cancer patients. However, Tavoli et al. suggested that awareness of cancer diagnosis reduced the quality of life in patients with gastrointestinal cancer.[20] It should be noted that the mentioned study was conducted only on patients with gastrointestinal cancer and quality of life was reviewed as a dependent variable.

The results of the present study showed that awareness of cancer diagnosis had no negative effects on spiritual health status among patients which emphasizes the necessity of giving more attention to informing cancer patients about their diagnosis. Sadly, according to previous research, many Iranian cancer patients are unaware of their disease diagnosis. Tavoli et al. showed that 52% of cancer patients were unaware of their disease diagnosis.[20] Likewise, based on Vahdaninia and Montazeri, 54% of the studied physicians informed less than 20% of their patients about cancer diagnosis mostly due to the fear from negative consequences of informing.[21] However, the present study showed that awareness of disease diagnosis had no negative effects on spiritual health of cancer patients. Yet considering the sensitivity of the issue, further comprehensive studies are required before taking any steps.

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The present study had some limitations. First, the samples were selected through available sampling method. Second, data collection was performed by self-report and mostly through interviewing which reduced its application and generalization. Besides, although the patients of both groups were justified in terms of education, age and sex, some other factors might have affected the results while dividing the patients into unaware and aware groups. Therefore, conducting a study on the correlations between patients' characteristics and their spiritual health level are necessary. In addition, more studies need to be conducted on spiritual health among patients with different types of cancer at different stages of the disease.

Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

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