

Research Article

The Relationship between Religious Beliefs and Rate of Depression and Anxiety in the Patients with Cancer in Zahedan (Iran)

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ABSTRACT

Introduction: Considering the importance of cancer psychological aspects, the present research was done with the aim of studying the relationship between religious beliefs with rate of depression and anxiety in the patients affected by cancer in Zahedan (Iran).

Materials and methods: This descriptive- analytical study was performed on 100 adult patients (>18 years old) who were affected by cancer and referred to the hospital and the related private centers.

The Convenience sampling was performed. Two standard DASS-21questionnaires were given to the patients in order to evaluate the rate of their depression; anxiety and religious view standard questionnaire was given them in order to evaluate their religious beliefs. Obtained data were analyzed and investigated using Chi square test and correlation coefficient.

Findings: Among 100 patients, 56 patients were female and 44 patients were male. 23% of the patients were older than 60 years old. 45% were uneducated, 7% elementary educated, 36% guidance school and high school and 12% were under graduated from university. 78% were married, 10% were single and 12% widow. DASS-21 questionnaire indicated rate of depression equal to 36% (24% slight and 12% mean) and rate of anxiety were shown equal to 42% in the under studied patients (14% slight, 18% mean and 10% severe), also rate of depression, anxiety and religious beliefs of the under studied patients were measured separated from the variables of gender, age, education level and marital statue.

Conclusion: Statistical chi-square test indicated that any significant relationship was not obtained between depression and anxiety with the religious beliefs of the patients affected by cancer totally and separated from gender, age, education level and marital status. Also the results revealed that there are not any significant relationship correlatively between depression and anxiety with rate of religious beliefs of the under studied patients except three group such as : female group, 18-60 age group and high school group of education level. Thus , it is advised that the future studies should be done on more sample numbers, more congenial people from viewpoint of demographic using local standard measurement tools proportional to religious and psychological characteristics of Iranian population.

MeSH Headings/Keywords: cancer, depression, anxiety, religious view

Introduction

Since the beginning of formation of practical psychology, some researches in field of the relation of religion and mental health often indicated the positive relation between these both variables. Since 1950s, the researches indicated the effect of religion interferences on psychological sufferings, among them; effect of prayer and blessing "therapeutic blessing" can be pointed out.[1] To review the researches will make this effect more significant in the next years. Since 1990s, following the partial frustration of the mental health specialists in field of techniques and common interfering approaches and at the result of many researches and their findings that indicated the positive effect of religion on mental health, so tendency toward region was increased. In an intercultural study in 19 Arabic countries which was done on 28085 subjects, it was found that whatever humans are more bounded to religion, their tendency degree toward suicide is less.[2] In field of anxiety, as a mental prevalent disorder, the studies indicate that participation in religious celebration decreases the anxiety.[2] Also, some studies were done about religion and religious behaviour and depression that indicated the effect of religion on decrease in depression and reversed relationship has been seen between tendency toward religion and depression.[1] Generally religion includes positive

effect on mental health.[3] In meta-analysis which has been conducted on field of religious studies and mental health, the results revealed that in 45% of the studies, there is a positive relationship between religion and mental health.

In 23% there is negative relationship and in 30% of them there has not been any significant relationship.[4]

Not only several studies indicate positive relationship between religion and mental health, but only they also revealed that the effect of religion on physical health such as cancer.[1,3,5]

In the eastern industrial countries, cancer "augmentation and distinction out of control by the body tissues" is one of the most prevalence physical diseases that indicates the progressing rate of incidence. Although the options have been improved in order to medicine therapy and the survivors' percentages to more knowledge about cancers during recent decades, but still cancer is a threatening disease for living with pain, suffer and psychological subsequences.

Depending on severity and duration of symptoms, the psychological pain due to cancer includes variable range from ordinary reactions to psychological complications according to ICD (International Classification of Diseases) classification criterion.

In the patients with cancer, the most psychological diagnosis are such as, conformity disorders, depression and anxiety, the prevalence ratios in the documents indicate the high differences depending on type of under studying tumour and the applied measurement instruments. Nowadays, the valid examination instruments and diagnostic interviews are available in order to measure the psychological suffering and psychiatry complications. To examine psycho-social suffering in the patients with cancer and to measure the psychiatry disorders in among the important duties for modern therapy of cancer in order to determine the need for psychotherapy consultation and psychological therapy.[6] In this field, the researches revealed the high percentage of the psychiatry complications in the outpatients under genecology pathology.[7] In numerous studies, the effect of religion on the depression, rate of suicide, decrease in anxiety and stress, and enhance of life quality and sense of satisfaction have been indicated, such as the study by King et al:[8]

Although, the religious and spiritual beliefs may be increased marginally near death, these beliefs effects on levels of anxiety or depression in the patients with advanced cancer.[8] Using the religious/spiritual sources in fighting process in initial stages of breast cancer can play important role in compatibility of the patients with breast cancer.[9]

17 women affected by breast cancer were investigated in Maryland. The women who used less negative religious coping than others, they had greater spiritual health and less anxiety.[10] Religiousness plays important role in affectionateness mode and life quality in the Korean women with breast cancer. Thus, its clinical concept may be different considering type of religious beliefs and disease stage.[11] A study was done with the aim that whether religious acts can improve the life quality of the patients with breast cancer during chemical therapy or not? The result revealed that, acceptance of body image was correlated positively with religious behaviours and specially saying prayer. This preliminary study indicated the importance of religion in coping with chemical therapy of cancer.[12] An abroad study was done about role of spirituality in confronting to breast cancer bejtween Malaysian Muslim women. Finally, the research declares that ordinary emphasis on spirituality and communication with God, self and others may affect significantly on learning people how live with cancer.[13]

In a study, the catholic patients with cancer were investigated and finally this result was obtained that religiousness is common between the patients in south area of Europe who have low level of education and it seems that religiousness includes some supporting role in front of psychological disease specially depression.[14] In a study, religiousness, suffering, depression, anxiety and life quality were investigated in 50 patients with advanced cancer. Finally, this research declaims that mental right health is one of the important elements of life quality of the patients with the advanced cancer and it is in closed relation with psychological and physical symptoms.[15] During a research, 367 men with prostate cancer were studied in New York. The results revealed that while the religiousness and spirituality are assessed, the part that leads to decrease in depression is sense of concept and calmness. These cases indicate the high importance of the patients' sense progression about concept via interferences or activities to achieve the aim.[16]

Materials and Methods

In this descriptive-analytical research, the rate of depression and anxiety and its relation with religious beliefs were measured among 100 patients with cancer who referred to chemotherapy ward of Ali –Ebne- Abitaleb Hospital affiliated to Zahedan University of Medical Sceinces, and private center of Zahedan. Zahedan is center of the largest province of Iran named Sistan and Balouchestan which located the north of Oman Sea. Sampling was done by Convenience method. The data collection tool included two questionnaires: 1) DASS-21 questionnaire 2) Religious view questionnaire.

DASS-21 questionnaire was used to measure depression and anxiety that included 4 option 7 questions (never, few, sometimes and always) to measure depression and also 4 option 7 questions (never, few, sometimes and always) to measure anxiety. Scores of each option was considered from 0-3 that total score of subjects is obtained about depression and anxiety summing up the scores.

Considering few numbers of the samples in this study, the variables of depression and anxiety was classified based on presence or lack of them.

Key of test: Subscale of depression(7 expressions): 21-17-16-13-10-5-3 with ranking as normal (0-9), low (10-13), mean (14-20), severe (28 and more) and anxiety subscale (7 expressions): 20-19-15-9-7-4-2 with ranking as normal (0-7) , low (8-9) , mean (10-14) , severe (15-19) and very severe (20 and more). The validity of these instruments were confirmed in Iran by Moradipanah, Aghebati and Sahebi, as in Moradipanah's study, Cronbach's alpha was determined up to 94% in depression area and 92% in anxiety area.

In order to measure the religious beliefs, the standard religious view questionnaire was used which included 5 option

40 questionnaires (at all, seldom, sometime, mostly, always). The scores of each were considered from 0 to 4 that the total score of subjects is obtained about religious view. In this study, receiving scores up to 80-120 were considered as weak beliefs and scores up to 120-160 as strong beliefs. In Khodayarifard's study, the questionnaire of religious view was determined via Cronbach's Alpha coefficient up to 96% and its admissibility up to 76%.

Inclusion criteria were: the patients with sarcoma such as Solid and non solid (malignant leukemia and lymphoprolifrative) who were affected by cancer and referred to the pathologist's report, they were elder than 18 years old and familiar with Persian language who were the new members of the patients and were informed about their disease were entered into the study. And the patients who didn't like to cooperate and had record for referring the psychiatrist and consumption of the psychiatry medicine were excluded of the study. This questionnaire was fulfilled by the researcher via face to face interview with the research samples in order to prevent of effect of the patients' answers on each other.

After sampling and data collection, the data were analyzed using the statistical Chi-square tests and correlation coefficient test (In order to study the relationship between religious beliefs and rate of depression and anxiety and also the variables of gender, age, educational level and marital status.

This research approved by committee of Ethics of Zahedan University of Medical Sciences as thesis no: 1546.

Findings

In this descriptive-analytical study, 100 patients were studied (56 women and 44 men). The patients' age was about 18-85 years old that 23% were elder than 60 years old. From education level, 45% were uneducated, 7% elementary, 36% guidance school and 12% were under graduated. From marital status78% were married, 10% single and 12% widow.

The results of the assessment with anxiety and depression questionnaire (DASS-21) indicated the rate of depression in the people up to 36% (24% slight, 12% mean) and rate of anxiety in the under studied people was 42% (14% slight, 18% mean, 10% severe).

Separated from gender, the rate of anxiety was 22.7% in the males and 46.4 in the females neglecting the severity of disorder. The rate of anxiety was obtained up to 31.8% in the males and 46.4% in females.

Comparing with both age groups, the rate of depression and anxiety in age group of 18-60 years old was up to 37.7% and 42.9% respectively. And in age group elder than 60, the rate of depression was reported up to 30.4% and anxiety up to 39.1%.

From investigation of the educational level and depression, in uneducated group the rate of depressed people was reported up to 44.4%, elementary: 42.9%, under diploma: 35.1% and from anxiety status, 51.1% in uneducated group, 42.9% in elementary group, 35.1% in under diploma group, and 27.3% in the under graduated people. From studying the marital status and depression, 50% of the married people, 30.8% of the single people, 58.3% of widows were involved in depression. And also 40% of the married people, 39.7 of single people, and 58.3% of widows the anxiety was reported.

From studying the rate of religious beliefs among the under studied people, 50% of the males and 55.4% of females had good religious belief. In age group of 18-60, 49.4% and in age group of 60; 65.2%, the religious belief was good.

From studying the religious beliefs in various educational group, 53.3% of the uneducated people, 71.4% of people with elementary school degree, 54.1% of under graduated people had good religious beliefs. From studying the religious beliefs, 50 % of the married and single people and 75% of widows had good religious belief. Study the relation between depression and anxiety with respect to religious beliefs.

Statistical Chi-square test indicated that any significant relationship was not obtained in the patients with cancer totally and separated from the gender, age, educational level and marital status (tables 1 and 2). Also, studying the assessment of correlation coefficient between depression and anxiety was performed with the rate of religion beliefs in the under studying people separated from gender, age, educational level and marital status.

The results of studying via statistical test of correlation coefficient indicated that there are not any significant relationship correlatively between depression and anxiety with religious beliefs in the under studied people , except three cases : (female group, age group of 18-60 years old and high school group from educational level) (table 3).

Discussion

The aim of this study was to investigate the relation of the religious beliefs with rate of depression and anxiety in the patients with cancer.

The results of the studying the patients with cancer revealed that rate of depression (36%) and anxiety (42%) in comparing

Table 1: Percentage of the depressed people with slight religious beliefs (<120) and strong (> 120) separated from gender, age, educational level and marital status in the patients with cancer (Statistical chi-square test).

Depression		Religious belief		P.Val
		≥120	<120	
Total		29.8	41.5	0.22
Gender	Male	13.6	31.8	0.15
	Female	44	48.4	0.74
Age	18-60 years old	28.2	47.4	0.08
	Elder than 60 years old	37.5	26.7	0.66
Education	Uneducated	42.9	45.8	0.84
	Elementary	50	40	-
	Under diploma	23.5	45	0.17
	University	-	-	-
Married	single	20	80	-
	Married	25.6	35.9	0.33
	Widow	100	44.4	-

Table 2: Percentage of anxious people with slight religious beliefs (<120) and strong (>120) separated from gender, age, educational level and marital status in the patients with cancer.

Anxiety		Religious belief		P.Val
		≥120	<120	
Total		38.3	45.3	0.48
Gender	Male	36.4	27.3	0.517
	Female	40	58.1	0.179
Age	18-60 years old	38.5	47.4	0.43
	Elder than 60 years old	37.5	26.7	0.657
Education	Uneducated	47.6	54.2	0.661
	Elementary	50	40	-
	Under diploma	29.4	40	0.501
	University	28.6	25	-
Married	single	40	40	-
	Married	35.9	43.6	0.488
	Widow	66.7	55.64	-

with total population is higher (15% and 20% respectively) that can be due to stress for affecting the cancer and the related aggressive therapies which are full of complications, and the subsequent physical and mental disabilities,[17] this is occurred while a study on 109 patients with head and neck cancer in China was done and reported high level of depression and anxiety toward the public population in the hospital and the life quality was affected by the lateral complications of therapy. Therefore, we suggest to study the on time mental-social interferences straightening and to educate the lateral complications in order to enhance the patients' life quality.[18]

Statistical chi-square test indicated that from studying the relationship between depression and anxiety with religious beliefs any significant relationship was not obtained in the patients with cancer totally separated from gender, age, educational level and marital status. This was occurred while an ultra analytic study done about the religious studies and mental health, the results revealed that there is a positive relationship between religion and mental health in 47% of the studies, negative relationship in 23% of the studies and any relationship was seen in 30% of them.[4] Also results of our study is different from Travado *et al.* from spiritusoity supporting role in front of psychological disease specially depression.[14] Also the measurement separating from gender, indicates that rate of depression and anxiety in females are higher the males that is proportional to the present condition in public population,[19] but considering the restriction of the under studied population, judgment is difficult. In this field, a study was done on the patients with cancer in China. The results revealed that gender, age, marital status and the patients' age is in relationship with psychological distress.[20]

Same results were obtained in following two studies:

In a study on 104 patients with leukemia in Brazil, depression

Table 3: To study the correlation coefficient between depression and anxiety with religious beliefs in the patients with cancer separated from gender, age, educational level and marital status.

Anxiety		Religious beliefs	
		r	P
Gender			
Male	Depression	0.373	0.013
	Anxiety	0.275	0.07
Female	Depression	0.083	0.454
	Anxiety	0.119	0.384
Age			
18-60 years old	Depression	0.237	0.038
	Anxiety	0.148	0.199
Age>60	Depression	0.077	0.729
	Anxiety	0.023	0.918
Education			
Uneducated	Depression	0.009	0.954
	Anxiety	0.003	0.987
Elementary	Depression	0.018	0.969
	Anxiety	0.294	0.523
Under diploma	Depression	0.356	0.03
	Anxiety	0.289	0.083
University Single	Depression	0.032	0.925
	Anxiety	0.005	0.989
Marital status			
Married	Depression	0.489	0.151
	Anxiety	0.31	0.377
University Single	Depression	0.179	0.116
	Anxiety	0.127	0.267
Widow	Depression	0.018	0.957
	Anxiety	0.187	0.56

and anxiety in the females was reported higher than the males.[21] Also 1140 patients with chronic lymphoblastic leukemia (Bcell CLL) were studied in America. The results indicated that there is more fatigue and weaker moral performance in the females than the males.[22] In comparing the educational subgroups, with increase in educational level, rate of depression and anxiety was reported less in the under studied people that any significant relationship was not obtained about depression considering the restriction in the under studied population.

Reversed relationship was obtained about anxiety. In the same studies on the depressed people, the significant relationship was obtained between educational level and depression, but in the people with anxious disorders, the lower educational level was reported.[19]

Single, married, divorced and widow subgroups presented in research and the divorced subgroup was eliminated from the study and tables because there is not any divorced case. In studying other groups, depression and anxiety was seen less in the single people than married people and widows that

it is contrary to the previous studies in the public population, that singleness is a risk factor for mental disorders specially depression and anxiety, but considering limitation of the under studied subgroup numbers, any significant relation was not seen.

In this field, a research was done on the patients with cancer included 86 couples and 64 cases single in Florida University. Generally, in the men and the cases with married life low quality, depression, anxiety and awareness about positive health care's and the family problems belonged to the disease is higher than the females and the cases who had married life high quality.

In the single cases, the thoughts and senses of depression related to the disease were reported more, and the single men had more defeat in job activity and family relation than the women or men.[23]

Also, a study was performed on 33 patients under chemical therapy in USA. The results indicated that the neuro-oncology coupled patients may experience the depression symptoms that are due to marriage, but it seems that in comparing with the single or divorced patients, marriage is repellent of anxiety and prevalence of anxiety in the single patients, suggests interfering retouching with communication situations.[24] About assessing and analyzing the possibility reasons of the obtained results generally the following cases can be pointed:

A.Defensive mechanism of denial: The patients with cancer because of the severe nature of disease type and lack of mental accepting it, begin to denial the bitter fact of cancer affect or the physical and its psychological complications and problems. So, the patient avoid unconsciously from accepting the fact relevant to the disease. Also, about the resulted psychological problems such as anxiety and fear from future, depression and disappointment about future, the patients denial it. In the present study, also some of patients with cancer had received very low scares in answering the depression and anxiety questionnaire, that it can be excusable with defensive mechanism of psychological denial.

B.The limit numbers of under studied patients: Considering the assessment of several variables of age, gender, educational level, marital status beside the variable of depression, anxiety and religious beliefs in 100 samples of the patients with cancer , number of subjects are few in the related subgroups and thus any statistical interpretable and significant relation was not obtained.

C.Human psychological performance against awareness about a disaster (here is cancer) includes the stages like shock and denial the subject due to lack of psychological acceptance of the event, anger about the subject that the external appearance of this stage can be as quarrel with self or others and even against the creator as to leave religious tasks blaspheme. In next stage, human begins to transact and to haggle with the problem. This stage includes increase in blessing, to vow, to change the physician or the related hospital and finally, after some times, accepting the actual fact and subsequent depression is seen. One of the reasons of the obtained results of the study can be psychological pathologic process of accepting cancer subject and the process consisted of denial and anger can create negative effect on religious beliefs and its relationship with depression and anxiety in a patient.

D.Considering this matter that in the studying correlation coefficient any significant relationship was not obtained between depression, anxiety and religious beliefs except in three groups of (men group, age group of 18-60 and high school group from educational level). The restrictions of study can be pointed out such as few sample, too variety of the patient from the variables of age, educational level and variety of cancer as the factor possibly effective on the results of the study.

E.Material of study: DASS-21 and religious belief had non Iranian nature and even though the norm detected and standardized materials are available in Iran, but they had not possibility to comprehensive view and/or perfect proportion with Iran population, type of religious insight, and type of negative excitements variety and thus it is better to use the native research materials and materials proportional to psychological and religious condition of Iranian population in the same studies.

The following cases are among the restrictions of the research:

1. The sample number limited to 100 people, that despite the studying several variables of age, gender, educational level, marital status, depression and religious beliefs led to few numbers of under studying subgroup and made difficult to interpret the study.
2. Low educational level of the subjects (52% uneducated and elementary) made difficult to understand the questions of the applied questionnaire.
3. High variety of under studied population can effect on the subjects' psychological conditions from conditions of age, educations, type of cancer and other possible effective factors including economical and industrial situation, family support, physical problems due to cancer, or the related therapeutic measurements and high costs of therapy.

Finally it is advised that the future studies should be done on the more samples' numbers, the more homogeneous people from demographic specifications and using the native standard measurement materials proportional to religious and psychological characteristics of Iranian population.

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