

Epidemiologic Study of Depression in Ahwaz Cancer Patients in 2017

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Abstract

Background: Frequent hospitalizations induce a feeling of loneliness, which can lead to psychological stress and increase the risk of depression in the patient. Aims: The aim of this study was to determine the epidemiologic findings of depression of cancer patients in Ahwaz in 2017. Methods: In this cross-sectional study, 217 patients with cancer were recruited in the oncology ward of Ahwaz Baqaei-2 Hospital, Iran, in 2017 using convenience sampling. The data collection tool included demographic checklist and Beck Depression Scale. SPSS software version 20, descriptive statistics and independent t-test, ANOVA and Pearson correlation coefficient were used for data analysis. Results: In this study 217 cancer patients with mean age of $41/18 \pm 25/43$ years were enrolled. 122 patients (56.22%) were male and the rest were female and 145 patients (66.82%) were from urban and rural areas. The mean depression score in this study was $11/13 \ 68\pm/20$ which indicates moderate depression in these patients. There was a statistically significant relationship between place of residence and depression (p = 0.04), but no significant relationship was found between depression and the rest of demographic variables (p>0.05). There was also a significant negative correlation between monthly income in rials and depression scores (r = -0.64) (p = 0.001). Conclusion: The results of this study showed moderate depression in these patients, Therefore, it seems necessary to provide nursing interventions with a positive emphasis on improving the care environment. According to the results of this study, the positive impact of psychology counseling classes can help improve the quality of life of these individuals.

Keywords

Depression, Cancer, Chemotherapy, Radiation Therapy, Oncology

1. Introduction

Among the disorders that affect the health and consequently quality of life of people are chronic diseases such as cancer. [1-2] Cancer is the second leading cause of death in the United States and the third leading cause of death in Iran. Of the 7 million people in the world die of

cancer, the number of new cases is projected to rise from 10 million to 15 million by 2020 [3]. Despite advances in diagnosis and treatment, cancer is one of the leading causes of mortality in the world. Factors such as genetics, epigenetic and environmental factors are etiologically involved in cancer incidence [4].

Cancer is one of the most important causes of mortality and disability worldwide, and specially in developing countries. Tobacco smoking, obesity, sedentary eating, unhealthy nutrition, climate and food contamination, and chronic viral infections are major risk factors for cancer. Therefore, this disease should be considered in different aspects [5]. Diagnosing cancer is a very unpleasant and unbelievable experience for anyone. Cancer disrupts one's job, socio-economic status, and family life, leading to the devastation of a patient's life. The effects of cancer include fatigue, mental, psychological problems, illness denial, mental image disorder due to changes in organ function and duration of illness. Other features of cancer, type of cancer, stage of cancer, time of initial diagnosis, patient acceptance, pain from cancer, mental stress and carers' behavior affect the quality of life of cancer patients [2].

Depression as a mood disorder is one of the most common psychiatric illnesses in cancer. It is characterized by a lack of pleasure, avoiding friends or family, lack of motivation and intolerance of failure, physical symptoms including decreased libido, decreased or increased appetite and weight, decreased energy and early fatigue, and sleep disturbance [6]. The second most common psychiatric diagnosis in these patients is major depressive disorder [7]. According to the American Cancer Society, more than 25% of people with various cancers have clinical symptoms of depression [8].

Depressed cancer patients usually report poorer quality of life and report high levels of fatigue and lethargy. Depressed cancer patients usually report poorer quality of life and report high levels of fatigue and lethargy. In addition, untreated depression can lead to problems in decision making in the field of treatment, lack of awareness of treatment, poor social interaction and impaired quality of life [9]. Frequent hospitalizations induce a sense of loneliness, all of which leads to psychological stress in the individual and increases the risk of depression in the patient [10]. Given the high prevalence of depressive disorder, individual psychotherapy may not be the answer [11]. Therefore, due to the high prevalence of cancer and the importance of studying depression in these patients, this study was performed to determine the epidemiological depression of people with cancer in Ahwaz in 2017.

2. Methods

This study was a cross-sectional analytical study conducted with the necessary ethical permits from Ahvaz Jundishapur University of Medical Sciences on cancer patients in the oncology ward of Baqa'i Hospital, Ahwaz. This article is a result of a research project approved by Ahvaz Jundishapur University of Medical Sciences under code IR. AJUMS. REC. 1396.176.

In this study, 217 cancer patients with inclusion criteria were studied.

Inclusion criteria: Patients referred to the oncology ward of Baqaei Hospital of Ahvaz in 2017 with definitive diagnosis of cancer by a treating physician undergoing surgical, chemotherapy, radiation therapy, or follow-up, aged between 15 and 45 years. Written consent was informed. Demographic questionnaires and Beck Depression Inventory were used for data collection. Demographic checklists were used to examine variables such as age, sex, marital status, economic status, education level and duration of disease diagnosis.

Beck Depression Standard Questionnaire: This questionnaire was developed and validated by Aaron T. Beck and is widely used in clinical centers. It has 21 questions and is suitable for people over 13 years old. The total score of the subjects can range from zero to 63. On a scale: score of 0 to 9 is normal, score of 10 to 19 is mild depression, score of 20 to 29 is moderate depression and score of 30 and above are severe depression. In a study in Iran, Cronbach's alpha coefficient was 0.87 and test-retest reliability was 0.74 [12]. After providing the necessary explanations about the nature of the design and the necessity of completing the questionnaires, they were invited to fill out written and informed consent to answer the questionnaire questions. SPSS software and independent t-test, ANOVA and Pearson correlation coefficient were used for data analysis.

3. Results

In this study 217 cancer patients with mean age of ± 4118 43/25 years were enrolled. 122 patients (56.22%) were male and the rest were female, 140 (64.51%) were married and 145 (66.82%) lived in urban areas. Other demographic information is listed in Table 1.

Table 1. Distribution	of demographic	variables in	patients w	ith cancer	and
its relation with depre	ession using indep	pendent t-test	t and Anova	۱.	

Item		Percent	depression and p-value	
Sex	Male	56.22	0.08	
	Female	43.78		
	Single	24.88		
Marital status	Married	64.51	0.42	
	Divorced	2.3		
	Widow	8.2		
Place of	Urban	66.82	*0.04	
residence	Rural	33.18		
	Illiterate	28.11		
	Under diploma	23.04		
Level of	Diploma	26.72	0.2	
education	Associate degree	4.6	0.2	
	Graduate and post graduate	17.51		
History of	Yes	58.98	0.09	
hospitalization	No	41.01		
History of	Yes	35.94	0.41	
surgery	No	64.05	0.41	
	Chemotherapy	71.88		
	Radiotherapy	2.76		
Type of	Chemotherapy +Surgery	14.74	0.12	
treatment	Chemotherapy +Radiotherapy +Surgery	6.91	0.12	
	other	3.68		

* Significance level was considered under 0.05.

The mean depression score in this study was $20/68 \pm 13/11$ which indicates moderate depression in these patients. 28.7%

of these patients had severe depression and the rest had mild to moderate depression. There was also a statistically significant relationship between residence and depression (p = 0.04) (chart 1). Also, there was a significant difference between participation in counseling classes, duration of treatment and mean score of depression (p < 0.05). (Chart 2) But there was no statistically significant relationship between mean depression scores and other demographic variables (p> 0.05) (Table 1).

There was a statistically significant direct and nonsignificant correlation between age and mean depression scores (p = 0.09) (r = 0.14). But there was a significant negative correlation between monthly income in rials and depression scores (r = -0.64) (p = 0.001).



Figure 1. Mean Depression in Patients with Depression by Gender and Location.



Figure 2. Mean Depression in Patients with Depression by Participation in Counseling Classes and Duration of Treatment.

4. Discussion

The aim of this study was to evaluate the epidemiologic findings of 217 patients with depression in Ahwaz. The mean depression score in this study was $2/68\pm13/11$ which indicates moderate depression in these patients. 28.7% of

these patients had severe depression and this finding is in line with the results of Bamer, Spiegel, and Norton. Explaining this finding, depression can lead to irrational and unhealthy behaviors. Apparently, disapproval, frustration, and depression can have a negative effect on the adrenal glands and reduce their ability to produce hormones that support living immune responses [16].

Results showed that there was a significant difference between participation in counseling classes, duration of treatment and mean depression score. In this regard, James conducted a study aimed at the effect of therapeutic intervention on depression, hopelessness and suicidal thoughts of depressed persons; the results showed that Meaning Therapy had a significant effect on the reduction of depression, hopelessness and suicidal thoughts [17]. Merton's study also conducted a study aimed at the effect of meaning therapy on depression in depressed individuals, which showed that meaning therapy sessions had a significant effect on reducing sadness and depression [18]. The results indicate that cognitive-behavioral therapy may reduce depression. This finding is in line with the findings of Whitton [19], Carty [20], Fenton [21], and Freedland [22]. Based on the results of the present study, group counseling plays an important role in reducing depression in cancer patients. The results also showed that there is a relationship between monthly income and depression.

Job loss, social isolation, economic problems, spending too much time on chemotherapy or radiotherapy are stressors that can make a cancer patient susceptible to mental disorders.

The results of the Martensson study also showed that patients with college education had less stress symptoms and depression [23]. Also the results of another study [24] showed that in patients with higher well-being, depression was lower. The findings of the present study indicate that depression in married, employed, and higher educated individuals may be due to greater social interactions and greater social and family support and self-care in these patients.

The results also showed that there was a statistically significant relationship between residence and depression. According to the results of research by Rajabizadeh et al. In Kerman, there was no relationship between depression and age variables, chemotherapy sessions and place of residence [6]. And this relationship needs further study.

Finally, preventing and controlling depression in cancer patients requires health promotion programs and social support.

5. Conclusion

The results of this study showed moderate depression in these patients. Therefore, it seems that providing nursing interventions with positive emphasis and improving the care environment is necessary. Considering the results of this study, such as the impact of psychology counseling classes, can help improve the quality of life of these individuals.

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