Measurement of Depressive Symptoms in Patients with Cancer in Nineveh Governorate

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ABSTACT

Background and aim: Cancer is the second leading cause of death among adults. Patients with cancer suffer from different psychiatric and mental problems due to their disease. However, the aim of this study is to assess depressive symptoms in adult patients with cancer, according to the variables (gender, type of cancer and stage of cancer).

Materials and method: A descriptive study design was adopted in the present study. The subjects consist of (306) patients with cancer and age group between (19 more than 70) years. The data were collected from Nineveh Governorate, and carried out in oncology and nuclear medicine specialist and Ibn-Sina Teaching Hospital in Mosul, during a period from 5th December 2012 to 5th of April 2013. Both the scales International Beck Depression Inventory - Scale the scale strategies life events adopted it the study.

Results: The findings of the study indicated that there are significant statistical differences between depressive symptoms with regarding (age group, religion, educational levels, socioeconomic status, type of cancer, time since diagnosis and stage of cancer).

Recommendations: the study has recommended to encourage the patients with cancer, using strategies of confrontation and challenge, and based spiritual to reduce depressive symptoms for them.

Keywords: depressive symptoms, patients, Cancer

INTRODUCTION

Depression is a significant contributor to the global burden of disease and affects people in all communities across the world. Today, depression is estimated to affect 350 million people. The World Mental Health Survey conducted in 17 countries found that on average about 1 in 20 people reported having an episode of depression in the previous year. Depressive disorders often start at a young age; they reduce people's functioning and often are recurring. For these reasons, depression is the leading cause of disability worldwide in terms of total years lost due to disability. The demand for curbing depression and other mental health conditions is on the rise globally. A recent World Health Assembly called on the World Health Organization and its member states to take action in this direction (World Health Organization, 2012). Depression refers to a wide range of mental health problems characterized by the absence of a positive effect (a loss of interest and enjoyment in ordinary things and experiences), low mood and a range of associated emotional, cognitive, physical and behavioral symptoms (Lewinsohn *et. al*., 2000). Cancer is the second leading cause of death among adults in the United States and affects an estimated 1 in 3 individuals in their lifetime, either through their own diagnosis or that of a loved one (American Cancer Society, 2003).

Many studies have documented the prevalence of depression in cancer patients. The prevalence estimates of current major depression from these studies have varied widely, from a low of 1% to a high of 50%, and prevalence estimates for depressive syndromes among cancer patients (such as adjustment disorder with depressed mood) have reached as high as 58% (Massie, 2004). Depression and depressive symptoms are prevalent in people with cancer, yet interventions for depression are a low priority for most oncology care providers. Barriers to diagnosis and treatment include beliefs by patients and providers that depression is an expected correlate of cancer diagnosis, the reluctance of patients to share psychological concerns, and the reticence of some professionals to assess patients with cancer for depressive symptoms in the midst of busy oncology settings. Intervening to diminish depressive symptoms in people with cancer is important because depression has been associated with poorer quality of life, recovery, and possibly the survival (Caryl, 2007).

MATERIALS AND METHOD

A descriptive study was carried out from 16th of December 2012 to 17th September 2013 in order to achieve the objectives of the present study. The data were collected from Oncology and Nuclear Medicine Hospital and Ibn-Sina Teaching Hospital in Mosul city. The sample of

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the study was (306) patients distributed according to cancer type; breast cancer (130), Bronchus and lung cancer (36), Non Hodgkin's lymphoma (38), Hodgkin's disease (44), colon cancer (58). A tool for the study composed of three parts: Part I; related to demographic characteristics of the patients, gender, cancer type, and stage). Part II; composed of Beck Depression Inventory - Scale with 21 items that evaluate (Fontaine, 2009). Part III composed of the scale strategies life events that consisting of 23-items adapted to identify the strategies are confrontation and challenge, Strategy based spirituality, based social strategy, surrender strategy and aggression and avoidance (Wadood, 2002)**.** Data were collected, tabulated and presented in a descriptive form. The percentages were used in the calculation and description of the samples. Mean and standard deviation were used as descriptive statistics.

RESULTS

Table (1): Distribution of Depression levels among patients males and females

Levels of Depression with total score	Gender				TOTAL	
	Male		Female		No	%
	No	%	No	%		
(11-16) Mild mood disturbance	2	2.1	14	6.6	16	5.2
(17-20) Borderline clinical depression	10	10.6	26	12.3	36	11.8
(21-30) Moderate depression	**54**	**57.5**	**98**	**46.2**	**152**	**49.7**
(31-40) Severe depression	20	21.3	56	26.4	76	24.8
(over 40) Extreme depression	8	8.5	18	8.5	26	8.5
TOTAL	94	100.0	212	100.0	306	100.0

Table (2): Relationship Between Gender and level of depression.

Gender	No	Mean	Std. Deviation	df	t	Sig.
Male	94	28.5319	8.04517	304	.761	N.S
Female	212	27.7736	8.04523			

Table (3): Analysis of variance for the Differences Statistical between Level of Depression and Cancer Type

Type or Site of Cancer	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8303.308	4	2075.827	54.758	.000
Within Groups	11410.679	301	37.909		
Total	19713.987	305			

Table (4): Analysis of variance for the Differences Statistical Between mean of Depression and mean of Type or Site of Cancer.

Type or Site of Cancer	N	Mean	Std. Deviation	Std. Error
Breast cancer	130	24.7385	6.06241	.53171
Bronchus and lung cancer	36	29.4444	7.53068	1.25511
Non Hodgkin's lymphoma	38	28.3684	5.83753	.94697
Hodgkin's disease	44	23.0455	4.86542	.73349
Colorectal cancer	58	37.9655	6.49687	.85308
Total	306	28.0065	8.03965	.45960

Table (5): Relationship Between Stage of Cancer and Level of Depression.

Stage	No	Mean	Std. Deviation	df	t	Sig.
Diffusive	**72**	**34.6389**	**8.21936**	**304**	**8.992**	**.027**
Non-diffusive	234	25.9658	6.80057			

Table (6): Analysis of variance for the Differences Statistical Between Adaptation strategies and Depression levels

Adaptation strategies	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14027.018	4	3506.754	185.606	.000
Within Groups	5686.969	301	18.894		
Total	19713.987	305			

Table (7): Analysis of variance for the Differences Statistical Between mean of Depression and mean of Adaptation strategies

Adaptation Strategies	Mean	Std. Deviation
Strategy of confrontation and challenge	7.559	3.70498
Based social strategy	6.261	2.11830
Strategy based spirituality	5.53	3.38571
Aggression strategy	4.81	7.23758
Avoidance and surrender strategy	4.58	4.65470

DISCUSSION

Table (1), shows that the highest percentage of the patients (49.7%) were suffering from Moderate depression, and the majority (57.5%), (46.2%) were male and female respectively. Table (2) reveals a non-significant difference between the mean of males and females using the T-Test. Table (3) reveals that there are significant differences in the level of depression regarding type or Site of Cancer among patients with cancer at $p < 0.05$. Table (4) Shows that the mean (37.9655) of patients colorectal cancer was higher than the means of other types cancer. The mean difference is significant at the 0.05 level. Table (5) reveals that there are statistical significant differences between the mean of patients with diffusive and non-diffusive stages of cancer. The result in table (6) reveals that there are significant differences between the levels of depression regarding adaptation strategies scale between patients with cancer. Table (7) Shows that the means of these strategies, (7.559), (6.261), (5.53), (4.81), and (4.58), respectively, were (confrontation and challenge, based social, based spiritual, aggression and avoidance and surrender strategy) respectively.

Concerning the distribution of percentages for relation between level of depression and Gender, they were as follows: (5.2%) of the patients with Mild mood disturbance, (11.8) of the patients with Borderline clinical depression, (49.7%) of the patients with Moderate depression, (24.8%) of the patients with Severe depression and (8.5%) of the patients with Extreme depression.

In comparison with other studies, the prevalence of depression in our study was higher. For instance, in a study in 2004, the prevalence of depression among patients was as follows: 10% of patients had severe depression, 32% moderate depression and 58% mild depression (Hahn *et. al*., 2004). However, in our study, we did not observe any patients with normal ups and downs depression. Perhaps the reason behind our finding may be due to the bad conditions of killing and blasting and absence of security experienced by Iraq, in generals and Nineveh Governorate in particular.

An interesting finding in our study is that there was not a statistically significant difference between levels of depression and gender. This is consistent with the findings of other studies (Lavdaniti *et. al*., 2012; Medeiros *et. al*., 2010; Jadoon *et. al*., 2010; Farooqi and Ahsan, 2009; Tavoli, 2007). Depression is also believed to affect men and women with cancer equally. In addition, there are conflicting results about depression and gender in other studies (Massie, 2004). Cancer is such a deadly disease where the men and women suffer the same complications mentally as well as physically and get the same treatment. Though the result is quite unpredictable, but the Gender may not discriminate or affect the depression level. The present study shows that there are statistically significant differences between levels of depression and type or site of cancer. This is in agreement with the study by Mashhadi *et. al.* (2013), as we found the highest depression in patients with colon cancer. This progress in the level of depression in patients with cancer of the colon is ascribed to the following reasons: All colon cancer patients have undergone surgery, where changes in this process (rectum) place of stool from its normal to elsewhere in the

abdomen (through a procedure of surgical operation in the abdomen called a colostomy); treatment or therapy of colon cancer were always unavailable and expensive, and bringing the patient from outside the hospital. Also lack of financial resources may be a considerable source of stress one might expect depression to be more prevalent in those patients with colon cancer compared with other types of cancer. Review Articles for Study in the Kingdom of Saudi Arabia (KSA) affirmed that patients with colorectal cancer (CRC) experience psychological stress due to the diagnosis and the physical and social changes brought on by the illness; increasing the risk of depressive disorder (Sehlo *et. al*., 2013**).** The findings show that there are statistically significant differences between levels of depression and stage of disease. This is in agreement with Gorman *et. al.* (2010**),** yet it is not consistent with the study by Chen *et. al.* (2009), who showed that there no significant differences were observed in the prevalence of depression by disease stage where the prevalence of depression varied slightly by TNM stage. This is because whenever the cancer advances, it increases the hazard chances of death, and decreases or makes difficult the success chances for therapy.

The study result shows that there are significant differences between adaptation strategies scale by patients with cancer. The cancer patients have less depression. They used strategies, (confrontation and challenge, based social strategy, Strategy based spiritual, aggression and avoidance and surrender strategy) respectively, where the means of these strategies are (7.559), (6.261), (5.53), (4.81), and (4.58), respectively. It seems that some of these means are higher the theoretical mean (5.6), and others are lower than it.

CONCLUSION

Results from this study indicate that the level of depression is high among cancer patients . The patients with colon cancer they are exposed to high levels of depression resulting from the illness, because after surgery (Colostomy), patients face the prospect of changes in life style.

RECOMMENDATIONS

The emergence of the high results of the test indicates that there is an urgent need to look for the ways to reduce the depressive symptoms in patients with cancer as well as the need to founds are government departments to support patients with cancer. The need to institutions and centers of guidance and rehabilitation to reduce the severity and impact of stress on patients with cancer and finding solutions are materially, socially and medically to reduce the incidence of psychiatric illness, and follow-up of psychiatric status in general and Life-threatening illnesses particularly. The application of psychotherapy program for patients with depressive symptoms under the supervision of behavioral psychotherapist with a specialist doctor of oncology to reduce the aggravation of the severity of the disease. Encourage the patients with cancer, using strategies of confrontation and challenge, and based spiritual on lower depressive symptoms for them.

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