Assessment of Depression among Cancer Patients in Babylon City

تقييم الاكتئاب بين مرضى السرطان في مدينة بابل

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الخلاصة
خلفية البحث: الاكتئاب هومن أكثر المشاكل النفسية التي يعاني منها المرضى المصابين بالسرطان وترتبط مع نتائج العلاج، وزيادة فترات الاستشفاء وارتفاع معدلات الوفاة.
الهدف: تقييم الاكتئاب بين مرضى السرطان، وعلاقته مع الخصائص الاجتماعية والديموغرافية والسريرية لمريض السرطان.
المنهجية: تمّ اختيار عينه غرضية (غير عشوائية) تتكون 100 من المرضى الذين يعانون من مرض السرطان في مدينة مرجان الطبية / مركز بابل لمعالجة السرطان للمدة من 2 كانون الثاني 2014 لغاية 28 شباط 2015 وتمّت جمع العينة بطريقة المقابلة مع مرضى السرطان، وجُمِعَت البيانات بواسطة استبانة خاصة باستعمال مقياس بيك للاكتئاب بعد ذلك، تمّ تحليل البيانات عن طريق الإحصاء الوصفي والإحصاء التحليلي.
النتائج: أظهرت النتائج أنّ حوالي (70%) المرضى يعانون من مستوى اكتئاب حاد، واظهرت النتائج ايضا ان اكثر فئة عمرية ظهرت هي (46-60) سنة وكانت من النساء المتزوجات ربات البيوت ، وكان اعلى نسبة في المستوى التعليمي لعينة هي الاميين والذين يعيشون في المناطق الحضرية واغلب المرضى يعانون من سرطان الثدي واكثر المرضى هم في مرحلة العلاج الكيميائي والجراحي.
الاستنتاج: اغلب مرضى السرطان يعانون من اكتئاب عالي. مما يؤثر في مرضى السرطان
التوصيات: تحسين الرعاية وتوفير الدعم النفسي والعاطفي لمرضى السرطان وخصوصا بواسطة الكادر التمريضي، التنسيق بين مركز معالجة الأورام وقسم الطب النفسي لغرض إعطاء العلاج لتقليل مستويات الاكتئاب، وتثقيف المؤسسات الحكومية لغرض الكشف المبكر عن السرطان.
مفردات البحث: الاكتئاب ، مرضى السرطان

Abstract
Background: depression is the most psychological distress experienced by patients with cancer and are associated with poorer treatment outcome, increased periods of hospitalization and higher mortality rates.
Objective: To assess the level of depression in patients with different types of cancer and identify the relationship between depression level with some Sociodemographic and Clinical characteristics.
Methodology: purposive (non- probability) sample of 100 cases selected from cancer patients in Merjan medical city /Babylon oncology center. The data collected from January 2nd 2015 to February 28th 2015. A structured interviewing questionnaire constructed with cancer patients through using the depression scales. The data analyzed by using descriptive statistical measures and inferential statistical measures.
Results: Most of cancer patients have severe levels of depression (70%).Most of them were (46-60) age group, females, married, illiterate, lived in the urban and they were housewives. Most of the sample complaining from breast cancer, all of them under surgical and chemotherapy and other types of treatment .
Conclusion: The study concluded that most of cancer patients have depression.
Recommendations: Improving the psychological and emotional status for cancer patients of all types by nursing staff, especially after taking chemotherapy treatment. Also coordination between oncology center and the Department of Psychiatry in the hospital to reduce depression level. And educate all government institutions to conduct periodic tests for early detection of cancer, especially breast cancer to reduce spread.

Keywords: Depression; Cancer patients.

INTRODUCTION:

Cancer affects people; younger and older, richer and poorer, and has the same effect on men and women. It represents a large burden on patients that increases families and societies worried. Cancer is one of the leading causes of death in the world, particularly in developing countries [(1)].

Yet, 30% of cancer can be prevented by healthy life style or by immunization against cancer causing infections (HBV, HPV). Even with late stages of cancer, the suffering of patients can be relieved with good palliative care. Cancer is a life threatening illness which has a tremendous effect on patient's and family's physical and emotional wellbeing. Along with the illness, the distress can initiate disabling psychological symptoms such as depression, anxiety, and cognitive

impairments, which can be serious consequences of the illness and its treatment[2]. Prevalence and severity rates of psychiatric diagnoses vary according to cancer types for example, depression in female with breast cancer ranges from 1.5 percent to 57 percent[3]. At the same time a unique of psychophysiological side effects are associated with depression such as sleep disturbance, loss of appetite and poor compliance with recommended therapy [4,5]. Thapa explained causes of depression in cancer result from situational stress related to the cancer diagnosis and treatment or from medications such as chemotherapeutic agents, he also clarified that depression in cancer my results from non-precipitating events such as endogenous depression and recurrence of bipolar mood disorder [6]. However, the exact etiology of depression in cancer is unknown, but several factors have been suggested the emotional impact of cancer diagnoses, side effects of treatment. It show that cancer patients with emotional distress tend to have severe symptoms, longer recovery times, poorer outcomes and greater use of healthcare resources than those with a single disorder [7]. Depression leads to a decline in patient satisfaction with medical care and predicts disease progression [8]. Untreated depression can result in physical disability and sometimes resistance to treatment as well as having an effect on mental and physical performance of all the family or even lead to death [9]. A better understanding of factors related to depression and its reduction would help us to decrease and prevent the consequence disabilities of these patients and improve the quality of life and even their survival [10].

OBJECTIVE OF THE STUDY:

1. Assess the level of depression in patients with different types of cancer.
2. Identify the relationship between depression level and sociodemographic characteristics.
3. Identify the relationship between depression level and clinical characteristics.

METHODOLOGY

Design of the Study

Descriptive analytical study was conducted throughout the period of November 5th 2014 to April 9th 2015 to assess depression among cancer patients in Babylon city.

Setting of the Study

The study conducted at the Merjan medical city / Babylon oncology center that provides daily management for different type of cancer.

The Study Instrument:

The researchers depended also on Beck depression Scale the Arabic version with reliability (**0.89**) the questionnaire is comprise of two parts, Part-I-Sociodemographic characteristics include age, gender, marital status, level of education, residence, occupation and occupation type and Clinical characteristics include cancer type, treatment type and cancer stages and part- II-depression Scale consists of 21 items. Reliability of the questionnaire is determined through a reliability test and the validity is achieved through a panel of (16) experts. Data are collected using interview technique.

The Sample of the Study:

Purposive (non- probability) sample of 100 cases was selected from cancer patients in Merjan medical city / Babylon oncology center that provides daily management for different type of cancer.

Data Analysis:

Data are analyzed through using the Statistical Package of Social Sciences (SPSS, Version 20) performed using descriptive statistical data analysis approach; such as frequencies, percentages, graphical presentation by bar chart and inferential statistical data analysis approach which is presented as Chi-Square test.

RESULTS:

Table 1: Distribution of cancer patient by Socio- Demographic Characteristics.

Variable		F	%
Gender	Male	25	25.0
	Female	75	75.0
	Total	**100**	**100.0**
Age (year)	15-30	11	11.0
	31-45	27	27.0
	46-60	32	32.0
	61-75	27	27.0
	76-90	3	3.0
	Total	**100**	**100.0**
Marital Status	Single	8	8.0
	Married	80	80.0
	Widowed	9	9.0
	Divorced	3	3.0
	Total	**100**	**100.0**
Level of Education	illiterate	33	33.0
	Primary	28	28.0
	Secondary	18	18.0
	academic	21	21.0
	Total	**100**	**100.0**
Residence	Urban	52	52.0
	Rural	48	48.0
	Total	**100**	**100.0**
Occupation	Employee	25	25.0
	Unemployed	22	22.0
	Housewife	53	53.0
	Total	**100**	**100.0**
Occupation type	Government employee	22	22.0
	Free works	3	3.0
	Total	**25**	**25.0**

Table 1 show that the highest percentage of cancer patients were females (75%) ;(32%) (45-60) years old; married (80%); illiterate (33%); (52%) Urban, (53%) Housewife and (22%) Government employee.

Table 2: Distribution of the patients sample according to clinical variables.

Clinical variables		F	%
Cancer type	Breast cancer	35	35%
	Breast cancer and lymph node cancer	14	14%
	Leukemia	13	13%
	Uterus cancer	5	5%
	Lung cancer	5	5%
	Stomach cancer	4	4%
	Colon cancer	4	4%
	Prostate cancer	3	3%
	Liver cancer	3	3%
	Lymph node cancer	2	2%
	Liver and ovary cancer	2	2%
	Bladder cancer	2	2%
	Pancreas cancer	2	2%
	Pharynx cancer	1	1%
	Bone cancer	1	1%
	Esophagus cancer	1	1%
	Lung and brain cancer	1	1%
	Stomach and intestines cancer	1	1%
	Breast and spine cancer	1	1%
	Total	**100**	**100%**
Cancer stages	Organic stage	53	53%
	Metastasis stage	45	45%
	Local stage	2	2%
	Total	**100**	**100%**
Treatment type	Surgical and chemotherapy treatment	30	30%
	Radiotherapy, hormonal, surgical and chemotherapy treatment	23	23%
	Chemotherapy treatment	22	22%
	Surgical, radiotherapy and chemotherapy treatment	10	10%
	Radiotherapy and chemotherapy treatment	10	10%
	Hormonal, surgical and chemotherapy treatment	4	4%
	Hormonal treatment	1	1%
	Total	**100**	**100%**

Table 2 show that the highest percentage of the patients sample with regard to type of cancer were Breast cancer (35%). highest percentage of the cancer stages organic stage (53%). highest percentage of the type of treatment surgical and chemotherapy treatment (30%).

Table (3) Distribution of depressed patients according to their level of depression

Level of depression	Score of depression	frequency	percentage
No depression	0-11	2	2%
Mild depression	12-19	11	11%
Moderate depression	20-27	17	17%
Severe depression	28-63	70	70%
Total	**63**	**100**	**100%**

Table 3 indicated that there was (70%) of the cases have severe level of depression and (17%) of the cases have moderate level of depression (11%) have mild level of depression (2%) whereas not found according scale of depression.

Table (4): Chi-Square tests for depression Level and patients Socio- Demographic Characteristics.

Variable		Depression level				Chi-Square tests		
		Never	Mild	Moderate	Sever	Value	df	Sig.
Gender	Male	0	3	1	21	4.944	3	.176
	female	2	8	16	49			
Age	15-30	0	0	3	8	8.862	12	.715
	31-45	1	5	6	15			
	46-60	1	4	3	24			
	61-75	0	2	5	20			
	76-90	0	0	0	3			
Marital status	Single	0	0	0	8	10.714	9	.296
	Married	2	11	17	50			
	Widowed	0	0	0	3			
	Divorced	0	0	0	9			
Education level	Illiterate	0	1	6	26	17.494	9	.042
	Primary	0	2	7	19			
	Secondary	0	3	1	14			
	Academic	2	5	3	11			
Residence	Urban	2	9	12	29	11.252	3	.010
	Rural	0	2	5	41			
Occupation	Employee	2	6	3	14	23.038	6	.001
	Un employee	0	0	0	22			
	Housewife	0	5	14	34			
Occupation type	Government employee	2	6	3	11	16.652	6	.011
	Worker	0	0	0	3			

Table 4 that there was significant difference in the depression level in cases with respect to their education level, residence, occupation and occupation type at $p \leq 0.05$ and it appears from this table that there was no significant difference in the depression level in cases with respect to their gender, age and marital status at $p \leq 0.05$.

Table (5): Chi-Square tests for depression Level and patients clinical Characteristics.

Variable	Depression level				Chi-Square tests		
Cancer type	**Never**	**Mild**	**Moderate**	**Sever**	**Value**	**df**	**Sig.**
Breast cancer	1	5	11	18	37.260	54	.960
Breast and lymph node cancer	0	0	0	5			
Leukemia	0	0	0	4			
Uterus cancer	0	0	0	4			
Lung cancer	0	0	0	5			
Stomach cancer	0	0	1	1			
Colon cancer	0	0	0	2			
Prostate cancer	0	0	0	1			
Liver cancer	0	0	0	1			
Lymph node cancer	0	0	0	1			
Liver and ovary cancer	0	0	0	2			
Bladder cancer	0	1	2	10			
Pancreas cancer	0	1	0	1			
Pharynx cancer	0	0	0	3			
Bone cancer	0	2	0	1			
Esophagus cancer	0	0	0	1			
Lung and brain cancer	1	2	3	8			
Stomach and intestines cancer	0	0	0	1			
Breast and spine cancer	0	0	0	1			
Cancer stages							
Local stage	0	0	0	2	6.930	6	.327
Organic stage	2	9	9	33			
Metastasis stage	0	2	8	35			
Treatment type							
Surgical and chemotherapy treatment	1	1	4	24	32.039	18	.022
Chemotherapy treatment	0	0	2	20			
Hormonal treatment	0	1	0	0			
Surgical, radiotherapy and chemotherapy treatment	0	2	2	6			
Radiotherapy, hormonal, surgical and chemotherapy treatment	1	4	8	10			
Radiotherapy and chemotherapy treatment	0	1	1	8			
Hormonal, surgical and chemotherapy treatment	0	2	0	2			

Table 5 that there was significant difference in the depression level in cases with respect to their treatment type at $p \leq 0.05$ and it appears from this table that there was no significant difference in the depression level in cases with respect to their cancer stages and cancer type at $p \leq 0.05$.

DISCUSSION

Result of the study show depression in cancer patients were evaluated by using depression scale and result indicate that 70% of the studies sample feeling severe depression and moderated depression level, they feel sadness, pessimism, loss of pleasure and something in their body changed, which affected their sleep and appetite and may cause a significant disturbance in patients quality of life. The findings of present study indicate that majority of the studied patients were females married almost all of them Tan et.al, 2013 and Polikandrioti et.al, 2008 found that majority of cancer patients were females complaining from breast cancer. W.H.O in 2014 found that the incidence of breast cancer among Iraq women was (4,542 women). Regarding to the age the findings of the present study show that the majority of the studied patients in the age groups (46-60) years, Mashhadi et.al, 2013 in Iran findings indicate that majority of the studied subjects age were (40-59) years. In addition. Polikandrioti et.al, 2008 in Greece who found that majority of the study subjects were (< 50-60) years. One of the causes of cancer, especially breast cancer and ovarian cancer is a hormones changing especially after 40 years of age, this explanation were indicated our result. More than the half of the cancer patients were in the organic stage. Thalen-Lindstrom, 2014 their result indicated that majority of study organic stage, this may be because there were an early diagnosis of cancer and patient received treatment to reduce metastasis stage. That majority of study cancer patients had two type of treatment (Surgical and chemotherapy treatment) used in our hospitals in Iraq, cancer patients given chemotherapy after operation. Alacacioglu et.al, 2013 and Thalen-Lindstrom, 2014 supported study result. The finding of the present study indicated that there is significant variance in depression level with regard to the educational level of cancer patients. Educational level effect patients depression level, the illiterate patients have high depression level than the education patients. The finding of present study indicated that there is significant variance in depression level with regard to the occupation of cancer patients, patients who are not working reported significantly more depression level than worker patients, The reason for this result is workers patients are busy and the have a little time for thinking about disease. The finding of the present study indicated that there is significant variance in depression level with regard to the occupation type of cancer patients. These patients who are working in government offices have higher depression level than others, this may be because of the restricted working hours in government which a disease like cancer need a lot of free days for treatment. The finding of the present study indicated there is significant variance in depression level with regard to the treatment type of cancer patients. The reason for this result is that side effect of chemotherapy treatment and change in body image by surgical intervention. The finding of present study indicated that there is significant variance in depression level with regard to the residence of cancer patients. Cancer patients lived in rural areas have a high level of depression than cancer patients lived in urban areas. This result may be because of most of our sample are illiterate, little information they have about cancer and the distance between the rural areas and the hospital was too far. All these reasons may be lead to higher level of depression.

CONCLUSION

The study concluded that most of cancer patients have depression.

RECOMMENDATION:

1. Improving the psychological and emotional status for cancer patients of all types, especially by nursing staff after taking chemotherapy treatment.
2. Coordinate between oncology center and the Department of Psychiatry in the hospital for give treatment to reduce depression level.
3. Educate all government institutions to conduct periodic tests for early detection of cancer, especially breast cancer to reduce spread.
4. Conducting similar studies at the national level on the largest sample to assess depression among cancer patients.

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