

# Assessing Levels of Depressive Symptoms among Heart Failure Patients at Al-Hussein Teaching Hospital in Sammawa City, Iraq

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## **Abstract**

*This study aimed to assess the levels of depressive symptoms among heart failure patients and found the relationship between depressive symptoms levels and socio-demographic of responders. The study Initiated from September 2019 to August 2020), The study design was employed in this research is a descriptive design. The sampling of this study was the purposive sample by 100 heart failure patients was admitting at coronary care unit at AL Hussein teaching hospital in Sammawa city, Iraq. The results of data analysis was employed by Statistical Package for Social Science (SSPS version 24). Study showed that most of heart failure patients had severe depressive symptoms (48 %), moderate (32 %), mild (10%). There is no significant association between depressive symptoms and the patient's age, gender, education level, income, occupation, residence, admission frequency, duration of disease, and marital status.*

**Keywords:** Assessing, Depressive, Heart failure Patients.

## **I. Introduction**

Heart failure (HF) is a chronic failing of cardiac function typically characterized by difficult of breath, edema, or tiredness, as well as common hospitalizations and consequently high health care costs, HF represents a serious load to both patients and the health care organizations. Mortality remains high in spite of developments in treatment, with roughly 50% of HF patients dying within five years of disease<sup>(1)</sup>.

Heart failure is a common, composite deficient prognosis disease, and has opposing effects on quality of living, and it is a final stage for many diseases of the heart and the common reason for morbidity and death in the world. Heart failure is a chronic illness With obvious occurrence And death, despite weighty spending on health care. The prevalence Cardiac failure is expected to increase not only due to the increasing age, but also due to the

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accumulative life expectancy of patients with coronary artery disease as a result of considerable medical treatment, Diagnosis and interventional therapy <sup>(2)</sup>.

Depression is the most commonly explored subject in cardiac psychology. The incidence of depression among heart failure patients is developed than that of the healthy population. depression is related to nonfulfillment with medical treatment in younger, chronically ill, incapacitated patients and in aging cardiac patients, thus, it is possible that nonfulfillment with treatment programs may be a main factor for deteriorating the heart failure <sup>(3)</sup>.

Depression is the leading reason of incapacity worldwide, and is often co-morbid in patients with HF. It is associated with increased death rate and contributes to increase health service operation <sup>(4)</sup>.

Depression is five times more widespread in heart failure patients compared with the universal population. Depressive symptoms contribute to increase healthcare costs, hospitalizations, deteriorating of heart failure symptoms, and deaths. Moreover, it has been reported that depression in heart failure patients is related to diminished quality of life functional deterioration, physical, and social restrictions <sup>(5)</sup>.

## **II. Methodology**

### **2.1 Ethical Considerations**

Permission has been gotten from Al-Muthanna health directorate to ensure their acceptance, cooperation and to arrange for the administrations of Al-Hussein teaching hospital to do study as well heart failure patients who have agreed to participate in the study,

### **2.2 Design and Setting of Study**

A Descriptive study, which related to assess levels of depressive symptoms among heart failure patients at AL Hussein Teaching Hospital in Sammawa city, Iraq. Initiated from (September 16<sup>th</sup>, 2019 – August 15<sup>th</sup>, 2020). This study, conducted through a purposive sample (100) patients who were admitted at Al-Hussein teaching hospital.

### **2.3 Instrument of Study**

The researchers used an instrument consist two axes demographic information data and special scale to assess the depressive symptoms in hospital.

### **2.4 Statistical Analysis**

The data of the present study is analyzed through using the Statistical Package of Social Sciences (SPSS) version (24). The following statistical data analysis approaches which used in order to analyze data and assess the results of the study. The researchers used descriptive and inferential data analysis to obtain results.

### III. Results and Discussion

Table (1) shows that the most of the study sample was male (68%) and age was ranged (60–64) years, which represents (36%), Results also show that (66%) of the sample were married. The study in Pakistan showed the findings that the mean age of participants was (64) and most of the sample were male (72%) also, it showed the majority of sample were married <sup>(6)</sup>.

As a present result shows income monthly, the results revealed that the percentage represented (95%) of sample had inadequate income. A supported for this result was found in A cross-sectional study in Ethiopia was found the majority of patient with heart failure had inadequate monthly income<sup>(7)</sup>, as well the present study agreed with a correlation deceptive study in USA which study the impact of socioeconomic status on readmission rate among patients with heart failure and the study revealed the majority of patients with HF (63%) had inadequate monthly income<sup>(8)</sup>.

Regarding occupation status, table (1) shows that the current study found (62.0%) of the heart failure patients are jobless, (24.0%) are free work, (7.0%) are retired and only (7.0%) of them are employed. These results supported by study in Palestine where the study found (46.0%) from sample were jobless and (12.0%) were retired.<sup>(9)</sup>also, this findings supported by study in Jordan, Amman where the study found that the majority of sample (65.0%) were jobless<sup>(10)</sup>.

According to duration of heart failure, table (1) shows that the high level of depression have been seen among patients who were suffering heart failure through (1-2) years and the less percent was (5%) among patients with heart failure since 5 years and more, and these findings didn't agree with a study conducted in Pakistan where it found the rate of depression increases with prolonged period of heart failure<sup>(11)</sup>.

Also, table (1) shows that the current study found (53%) of the heart failure patients were admitted once or more time through last six months play the majority rate of the sample whereas the patients who admitted once time or more through a year have the less rate (7%). And these findings disagree with study in Greece <sup>(12)</sup>

Finally, Table (1) shows that the majority of current study sample (68%) were living in rural area while (32%) of them were living in urban area and this result similar to findings study in Palestinian population where found Most of the study population lived in rural (46.3%) <sup>(13)</sup>.

Table (2) shows that the majority (48.0%) of heart failure patients have sever level of depression, (32.0%) have moderate depression, (10.0%) have mild depression. And these results supported by the study of (Husain et al., 2019) in Pakistan and the study found (66%) of the total sample have been suffered severe depression level. Also, supported by (Connerney & Shapiro, 2011) in the United States<sup>(14)</sup>.

Table (3) shows that there is no significant association between level of depression and demographic characteristics of the heart failure sample including age, gender, educational level, occupation, residence, duration of heart failure, and admission frequency follow up (p value > 0.05). These results are agree with the study by Lefteriotis in Athens which aimed to review the literature about the relation of depression and heart failure. Where

indicated that there is no significant association between age, sex, and educational level of the patients of heart failure with the level of depression<sup>(15)</sup>.

These results are disagree with the study of Mills in California who aimed to assess depressive symptoms in asymptomatic stage B heart failure with Type II diabetic mellitus, which approve that age significantly influences the development of depression (p value =0.01) <sup>(16)</sup>.

The current study findings are disagree with the study of Garfield Who found that there is significant association between level of depression and patient's gender, level of education and occupation, marital status <sup>(17)</sup>.

#### IV. Conclusions

1. The characteristics of the current study indicated that the majority of the patients had sever level of depression are male (62.0%) within age group between (60-64) years old, graduated from primary school and more than half of the sample (68.0%) living in rural area .

2. There is no significant association between level of depression and the patients`demographic characteristic

#### V. Recommendations

Increasing awareness level of patient's & their families about the nature of HF and how to minimize their distress that caused by the disease. Provide psychological support to improve their psychological status, and training of nursing staff who work in coronary care unit on how to handle with patients to help them decreased their depression .

Table (1) Distribution of the Study Sample by Their Demographic Characteristics(n=100)

Sample Demographic Characteristics					
Gender			Residency		
	No.	%		No.	%
male	62	62.0	rural	68	68.0
female	38	38.0	urban	32	32.0
total	100	100.0%	total	100	100.0%

age				Level of Education		
	No.	%			No.	%
≤54	11	11.0		Illiterate	17	17.0
55-59	20	20.0		Primary	50	50.0
60-64	36	36.0		Secondary	21	21.0
65-70	22	22.0		Institute, college& more	12	12.0
≥70	11	11.0				
Total	100	100.0%		Total	100	100.0%
Marital status				Occupation		
	No.	%			No.	%
Married	66	66.0		Employed	7	7.0
Unmarried	12	12.0		Free work	24	24.0
Other	22	22.0		Retired	7	7.0
Total	100	100.0		Jobless	62	62.0
				Total	100	100.0
Home ownership				Monthly Income		
	No.	%			No.	%
Own	96	96.0		Inadequate	95	95.0
Rent	4	4.0		Somehow adequate	5	5.0
Total	100	100.0%		Total	100	100.0%
Duration of heart failure				Admission frequency		

	No.	%		No.	%
1-2	53	53.0	once or more per month	12	12.0
3-4	42	42.0	once or more per 3 month	28	28.0
5-6	5	5.0	once or more per 6 months	53	53.0
Total	100	100.0%	once or more per year	7	7.0
			Total	100	100.0%

No. = Number of the sample, % = Percentages.

Table (2) Distribution of the Sample according to the levels of depressive symptoms

Levels of depression										
Levels of depression	No disorder		Mild		Moderate		Severe		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
	10	10.0	10	10.0	32	32.0	48	48.0	100	100.0

0-7= no disorder 8-10= Mild Depression 11-15= Moderate Depression 16-21= Severe Depression

Table (3): Determining the significant difference in depressive symptoms levels in regard demographic characteristics of the sample.

Levels of depression			
Demographic characteristics	X2	df	p-value
Gender	0.741 a	3	0.864

<b>Age</b>	<b>6.130 a</b>	<b>12</b>	<b>0.909</b>
<b>Residency</b>	<b>1.434 a</b>	<b>3</b>	<b>0.698</b>
<b>Levels of Education</b>	<b>10.376 a</b>	<b>9</b>	<b>0.312</b>
<b>Marital Status</b>	<b>2.402 a</b>	<b>6</b>	<b>0.879</b>
<b>Occupation</b>	<b>9.801 a</b>	<b>9</b>	<b>0.367</b>
<b>Home ownership</b>	<b>3.320 a</b>	<b>3</b>	<b>0.345</b>
<b>Income</b>	<b>2.412 a</b>	<b>3</b>	<b>0.419</b>
<b>Duration of heart failure</b>	<b>7.834 a</b>	<b>15</b>	<b>0.930</b>
<b>Admission frequency</b>	<b>4.314 a</b>	<b>9</b>	<b>0.890</b>

X<sup>2</sup>→ Chi- square      df →degree of freedom      p-value → Probability

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