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## Depression among Patients Attending Physiotherapy Clinics in Erbil City

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### ABSTRACT

**Background and Objectives:** Depression is a condition that worsens the prognosis of patients undergoing physiotherapy treatment; it is underestimated and under-recognized. The objectives of this study were to detect the prevalence, severity and type of depressive disorder among patients attending the physiotherapy clinic, and analysis the factors that influencing the occurrence of depression and its severity.

**Methods:** Cross sectional study was carried out with (200) patients attending physiotherapy clinic in Hawler and Rizgary Teaching Hospitals in Erbil City from 2nd January -2nd march 2009. Data about demographic characteristics of the sample, utilization of health services, and type of physical diseases were obtained by direct questioning the patients. Depression was assessed by means of the Patient Health Questionnaire (PHQ-9).

**Results:** Point prevalence of depression was estimated to be 56% (27% mild, 20.5% moderate and 8.5% sever) among this population of patients attending an outpatient physical therapy clinic. Female gender, old age and married patients were suffering from sever depressive disorders

**Conclusions:** The high prevalence of depression in patients attending physiotherapy clinics suggests that consideration should be given to screen the psychological.

**Key words:** depression, physiotherapy, prevalence.

### INTRODUCTION:

Depression is a common and costly health problem. The term depression can refer to a mood state or an illness diagnosed according to various criteria (eg, the Diagnostic and Statistical Manual of Mental Disorder 1V) <sup>1</sup>. Depressive disorders are more common among patients with physical illnesses than those without it, with up to one third of medical in-patients reported mild to moderate symptoms of depression <sup>2</sup>. The presence of depressive symptoms in patients attending physiotherapy clinics often identified by questionnaires such as Beck Depression Inventory (BDI), or Patient Health-Questionnaire (PHQ-9), rather than through formal or structured interviews, they do provide a simple, low cost, and standardized method of identifying people

persistent pain problems, the diagnosis of depression presents particular difficulties due to shared symptomatology. In practice, depression in such patients has mostly been defined by scores on questionnaires <sup>3</sup>. Depression is common in patients attending physiotherapy clinic <sup>4</sup>, and is associated with increased pain intensity, increased physical and psychosocial disability, increased medication used, and increased likelihood of unemployment <sup>5</sup>. It is clear that the presence of depression is associated with poor outcomes <sup>6</sup>. Accordingly, current intervention guidelines encourages early detection and appropriate management based on the premise that this may lead to better outcomes, minimize the financial cost to the individual and society and prevent both depression and the physical illnesses <sup>7</sup>.

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tion between arthritis and psychiatric morbidity such as anxiety and depression. People with arthritis are more likely to – report a medically confirmed mental health problem and to have depression in particular according to a validated questionnaire measure. This effect is noted in the younger age group whose expectations of their physical abilities may be of high concern as opposed to those in the older age groups<sup>8</sup>. Finally, the depressive illness may be coincidental and unrelated to physical problems, as both physical and psychiatric conditions are common in the general population. Depression pre-dates the medical illness in up to 25% of patients with co morbid depression, and it is associated with an increase in somatic complaints.<sup>3</sup> The aims of the study was to detect the point prevalence and severity of depression among patients attending physiotherapy clinic and defining the factors that is related to the onset and severity in order to increase the general practionners attention toward psychological distress, and notions of the psychological distress as a possible contributory cause of the patient's physical

#### **METHOD:**

states.

The present study included patients from age 15 -65 years, referred to the physiotherapy clinic in Erbil and Rizgary Teaching Hospitals, from the period between 2nd January - to 2nd march 2009. The study population consisted of 212 cases from both genders. The medical history of each patient was thoroughly studied and types of physical illnesses were obtained through a data collection form submitted by the investigator. Patient read and signed an ethical approval informed consent before inclusion in the study. They were assessed fully when visited the physiotherapy clinic, additional clinical details and demographic data were obtained from the patient's record. Previously diagnosed patient with

study as they had previously been diagnosed with depression and were already receiving treatment for this condition, they were 12 cases the remaining sample was 200 patients form the present study sample. In order to find the psychological profile, each patient was asked to complete a composite questionnaire which include the use of Patient Health Questionnaire 9 (PHQ-9) 9 10, which served as a reference standard. This is a self administered version of the PRIME-MD diagnostic instrument for common mental disorders. The PHQ-9 is the depression module, which scores each of the 9 DSM-IV criteria as "0" (not at all) to "3" (nearly every day). It has been validated for use in Primary Care setting. The depression scale assessed dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia, and inertia 11. The data were expressed as descriptive

#### **RESULT:**

Out of 200 patients, 88 patients (44%) have no signs or symptoms of depressive illness, whereas 112 patients (56.0%) have depressive disorder (27% mild, 20.5% moderate and 8.5% sever depression) by application of Patient Health Questionnaire 9 (PHQ-9).

(Table 1) shows the distribution of respondents on the basis of age, older age groups (46 years and above forms 50% of the sample with higher incidence of sever depression.

(Table 2) shows the distribution of respondents on the basis of gender and marital status. 106 cases out of the study sample (53.0%) were females and found to be more depressed. particularly sever depression which was 7% in comparison to male gender were sever depression only detected in 3 cases. The married patients form the majority of the studied sample (73%) with higher rate of depression percentage of mild, moderate and severe depression which was: 19.5%, 14%

7.5% respectively. Only 11 cases was widowed 8 of them were depressed.

(Table 3) shows the relationship between depression and duration of the treatment and number of visits to the physiotherapy units. The present study shows that 145 (72.5%) of the cases who were attending physiotherapy clinic for less than one month showed higher rate of depression 38% in comparison to patients attending the clinic for longer period of time (18%). On the other hand the daily visitors to the unit were the Majority of the studied sample

(94%), sever depression were detected among them only in addition to other types of depression.

(Table 4) shows the relationship between different degrees of depression and the physical condition of the patients attending the physiotherapy unit; more than half of the studied sample was complaining from osteoarthritis with relatively high rate of depression particularly moderate to sever type, also we found higher prevalence of depression among patients with cerebrovascular accidents (stroke).

**Table (1):** Distribution of the sample according to age of the patients.

Age group	No Depressio n	Mild Depressio n	Moderate Depressio n	Sever Depressio n	Grand total
15-25 years	14 7%	12 6%	7 3.5%	2 1%	35 17.5%
26-35 years	18 9%	8 4%	6 3%	0 0%	32 16%
36-45 years	15 7.5%	6 3%	7 3.5%	5 2.5%	33 16.5%
46-55 years	22 11%	15 7.5%	11 5.5%	3 1.5%	51 25.5%
56-65 years	19 9.5%	13 6.5%	10 5%	7 3.5%	49 24.5%
<b>Grand total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>

**Table (2) :** Distribution of the study sample according to gender and marital status of the patients.

Gender	No Depressio n	Mild Depressio n	Moderate Depressio n	Sever Depressio n	Grand total
Male	52 26%	23 11.5%	16 8%	3 1.5%	94 47%
Female	36 18%	31 15.5%	25 12.5%	14 7%	106 53%
<b>Grand total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>
Marital status					
Single	18 9%	12 6%	5 2.5%	1 0.5%	36 18%
Married	64 32%	39 19.5%	28 14%	15 7.5%	146 73%
Divorced	3 1.5%	1 0.5%	3 1.5%	- -	7 3.5%
Widowed	3 1.5%	2 1%	5 2.5%	1 0.5%	11 5.5%
<b>Total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>

**Table (3):** Distribution of the study sample according to duration of treatment and number of visits to the physiotherapy clinic.

Duration of whole treatment	No Depression	Mild Depression	Moderate Depression	Sever Depression	Grand total
< one month	69 34.5%	35 17.5%	30 15%	11 5.5%	145 72.5%
> one month	19 9.5%	19 9.5%	11 5.5%	6 3%	55 27.5%
<b>Grand total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>
Number of visits to the Physiotherapy clinic units					
Daily	82 41%	51 25.5%	38 19%	17 8.5%	188 94%
Weekly	4 2%	2 1%	1 0.5%	-----	7 3.5%
Monthly	2 1%	1 0.5%	2 1%	-----	5 2.5%
<b>Total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>

**Table (4):** Distribution of the study sample according to the cause of physical diagnosis of the patients attending the physiotherapy clinic.

Diagnosis	No Depression	Mild Depression	Moderate Depression	Sever Depression	Grand total
Fighting	3 1.5%	2 1%	3 1.5%	3 1.5%	11 5.5%
Road traffic accident	2 1%	1 0.5%	0 -----	1 0.5%	4 2%
Burn	1 0.5%	3 1.5%	2 1%	1 0.5%	7 3.5%
Fall from height	4 2%	2 1%	0 -----	0 ----- -	6 3%
Congenital	10 5%	4 2%	2 1%	0 -----	16 8%
Cerebro-vascular accident	2 1%	6 3%	5 2.5%	4 2%	17 8.5%
Rheumatoid arthritis	6 3%	5 2.5%	3 1.5%	0 -----	14 7%
Osteoarthritis	49 24.5%	24 12%	20 10%	8 4%	101 50.5%
Facial palsy	8 4%	7 3.5%	5 2.5%	---- ----	20 10%
Foot drop	1 0.5%	-----	1 0.5%	---- ----	2 1%
Spasm	2 1%	-----	-----	-----	2 1%
<b>Grand total</b>	<b>88 44%</b>	<b>54 27%</b>	<b>41 20.5%</b>	<b>17 8.5%</b>	<b>200 100%</b>

**DISCUSSION:**

As depression is strongly associated with physical illness, it can be a complex and challenging condition for the medically ill patients<sup>12</sup>. Approximately 33% of physically ill patients have depressive symptoms, many of which are regarded as understandable responses or reactions to the physical illness. Depressive illness is often under-diagnosed and under-treated, particularly in those with coexisting physical illnesses. The assessment of both conditions and the interaction between them is critical in managing these patients<sup>13</sup>. In addition, the longer the depression is left undetected, the greater the likelihood of prolonged physical therapy intervention and increased disability<sup>14</sup>. This situation is costly to the patient and society in economic and social terms and perpetuates negative mood states<sup>15</sup>. However, because of the wide range of aspects addressed in this paper, it is not possible to describe the findings in detail e.g. in the sense of revealing predictors for each variable. The study represents the largest psychological assessment of different patients in a physiotherapy care setting in Erbil city.

The first major result was the high rate of depression among patients and almost half of the patients were depressed although depression was diagnosed and treated in only minority of the patients. The prevalence of depressive symptoms in this sample of patients attending physiotherapy clinic was found to be 56%, the prevalence estimate in this study is higher than some of other studies (90% of patients who attended pain management clinics) in Australia and United Kingdom studies were reported to have at least one mood disorder and 30% to 40% of those with a mood disorder were reported to have depression<sup>16-18</sup>. Probably some of these controversies might be due to methodological differences such as the use of various screening tools, sampling method, and the sample size. Still the

alone may lead to depressive symptoms, but definite depressive disorders, as defined by psychiatric classification, appear to result from a combination of chronic social difficulties resulting from rheumatoid arthritis, osteoarthritis plus independent social stresses<sup>20, 21</sup>. Prevalence rates for depression after stroke vary enormously (from 5% to 50%)<sup>22, 23</sup> depending on several factors, including the criteria used to diagnose depression, stroke severity and how long after the stroke the assessment is made. In the present study the rate of moderate to severe depression comprise more than half of the patients with stroke which is comparable with the previous studies but the sample size was too small.

Both psychosocial and physical factors appear to be important in the development of depression after stroke. Disablement has been shown to be a strong predictor of depression<sup>24</sup> and consequently the various forms of disability which follow stroke are likely to be an important factor in the development of depression<sup>25,26</sup>. Of utmost importance is the potential negative effect of depression on the patient's participation in rehabilitation and the associated rehabilitation outcome. The previous similar works reveal that the patients experienced real psychosocial problems, on which healthcare professionals need to

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