



Depression Screening and its Prevalence among Adult Patient Attending Family Medicine Clinic in Hatta, UAE

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ABSTRACT

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Depression is a prevalent mental health problem and one of the most common mental health issue worldwide that disturb the physical, mental and social well-being, causes persistent low mood, a sense of despair and the loss of interest in daily activities. Depression affects about one in four people at some point in their lives. Number of depressive patients approaching health facility for treatment and supportive care has enormously increased. Aim of the study was to determine the prevalence of depressive symptoms among adult patients attending family medicine clinic Hatta Hospital.

Method: A cross section audit study conducted among adults age 18 and above. Demographic data and associated conditions were recorded on proforma after exclusion criteria. A PHQ-9 questionnaire was used for screening the depression and to determine the prevalence.

Result: Total 378 patients were screened, 217 (57.4%) were males and 161 (42.6%) females. Depression was found in 93 patients (24.6%). Males were 30% % and females 70% among depressed. In the terms of severity in our study, 79.6% were mild and 19.4% moderately depressed. Associated conditions such as obesity (p value 0.012), Hypertension (p value 0.013) and hypothyroid (p value 0.018) were significantly found in depressed patients.

Conclusion:

Depression rate of screened patient appear to be high compared to rates reported in other studies. Our patients screened positive for mild to moderate. Female had high rates almost double, compared to males as is seen in almost all regional and international studies with high female preponderance. Some association in patients with depression and chronic illness was seen.

KEYWORDS:

Depression, PHQ-9, Obesity, Hypertension

INTRODUCTION

Mental illnesses are one of the major public health issues across the world, which affects millions of people. The concepts of westernization, socialization and globalization tremendously altered the lifestyle of the person across the globe and it has become the main reason for the increase in the burden of psychiatric disorders. Depression is the illness that disturb the physical, mental and social well-being. Depression causes persistent low mood, a sense of despair, low self-esteem, loss of interest and persistent sadness often accompanied by an inability to undertake daily activities. [1-3]

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The World Health Organization (WHO, 2013) has developed measures to quantify adverse repercussions of diseases, illnesses, or impairments including psychiatric disorders, using the disability-adjusted life year (DALY). WHO reported depression as the leading cause of disability as measured by years lost due to disability (YLD). Under global burden of disease (GBD) 2019, over 125 million DALYs were attributed to mental disorders, or roughly 5% of the global burden. [4] Furthermore, with the recent COVID-19 pandemic, there is growing and alarming evidence of its detrimental psychological and psychiatric effects for patients, health care workers, and the public overall. [5]

According to WHO statistics, depression and anxiety added up to a total of over \$ 1 trillion in economic losses each year. It is estimated that this amount will reach \$ 6 trillion by 2030. [6]

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The proportion of the global population suffering from depression in 2015 was estimated to be 4.4%. [7] In the United States, the prevalence of depression is about 9% among the general population. [8-9] Rates of depression in women are up to double than those in men. [10,11]

According to WHO estimates, 350 million people globally are affected by depression, this figure is on the rise. [12]. In the Gulf and Arab regions, the prevalence of depression varies substantially between published studies. [13,14], this rate even reached around 44% especially in developing countries. [15,16] In Saudi Arabia prevalence in primary health care varied between 17-46%. [17]

Screening for depression is cost effective. United States Preventive Services Task Force (USPSTF) has recommended screening elderly, adults and adolescents for depression. [18,19]. Research revealed that the Family physicians, Primary Health Care (PHC) clinicians are important to detect depression, and ultimately in reduction of healthcare costs. PHQ-9 is valid and one of the most common instruments being used. [20]

This audit study aimed to determine the prevalence of depression and associated morbidities among the screened adult patients ≥ 18 age visiting Hatta Family Medicine clinic.

STUDY METHODS

A cross section audit study conducted. Adults 18 years and above screened as per national periodic screen protocol for depression at Family Medicine Clinic, Hatta hospital from January 2021 to December 2021. Patients with special need, and patient already diagnosed with depressive disorder and patients under antidepressant treatment were excluded. PHQ-9, a symptom screening patient questionnaire was used to screen depression. PHQ-9 has 9 questions with each question score ranging from 0 to 3 for the severity of symptom over last 2 weeks (0 not at all, 1 present several days, 2 more than half of the day and 3 symptoms present nearly every day). After verbal consent PHQ-9 was explained to participants and all data collected on proforma including demographic, smoking status and associated comorbidities.

Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several Days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3

Depression severity was calculated on the basis of points from PHQ-9 total score of 0-27. Depression severity categorized as None with score (0), minimal depression (1-4), mild (5-9), moderate (10-14), moderate to severe (15-19), and severe (20-27). For statistical analysis in our study,

patients with zero and minimal score (1-4) on PHQ-9, were not considered as clinically depressed and not included in data analysis.

The data from PHQ-9 scores of all 378 patients was collected and analyzed for all questions using SPSS version 24

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estimating frequencies, percentages, means and standard deviations, where applicable. Demographic variables age, gender, smoking, medical history of co morbidity was included in analysis. p value <0.05 was taken as significant.

RESULTS

Age ranged from 18 to 87 years and mean age of the participants was 37 ± 13.094 SD.

Frequency of demographic variables like Age, gender, nationality, smoking status, associated conditions (obesity, diabetes mellitus, hypertension, dyslipidemia, hypothyroidism, asthma, headache, vitamin d deficiency), depression and depression severity are shown in table # 1.

Frequency of depression PHQ-9 scale are shown in table # 2.

In our study prevalence of depression among screened patients (n=378) was 24.6% (n=93). Mild 79.6% (n=74) and moderate depression 20.4% (n=19).

Association of depression with variables are shown in table # 3. Among these; gender (p value 0.00) age group (p value 0.048), obesity (0.012), Hypertension (p value 0.013) and hypothyroid (p value 0.018) were significantly associated with depression.

Association of depression severity with variable are shown in table # 3. Among these; Gender (p value = 0.000), obesity (p value 0.024), hypertension (p value 0.006) & hypothyroid (p value 0.040) were significantly associated with depression severity

Table 1: Frequency of demographic variables and health conditions (n=378)

		Number	%
Gender	Male	217	57.4%
	Female	161	42.6%
Age	18—35 years	203	53.7%
	36—59 years	151	39.9%
	60 years & above	24	6.3%
Nationality	Local	320	84.7%
	Non-local	58	15.3%
Smoking	Smoker	46	12.2%
Associated conditions	Obesity	80	21.2%
	HTN	59	15.6%
	DM	54	14.3%
	DL	52	13.8%
	Hypothyroid	21	5.6%
	Asthma	6	1.6%
	Vitamin D def	12	3.2%
	Headache	26	6.9%

Table 2: PHQ 9- Frequency of patients' responses to question for severity (n=378)

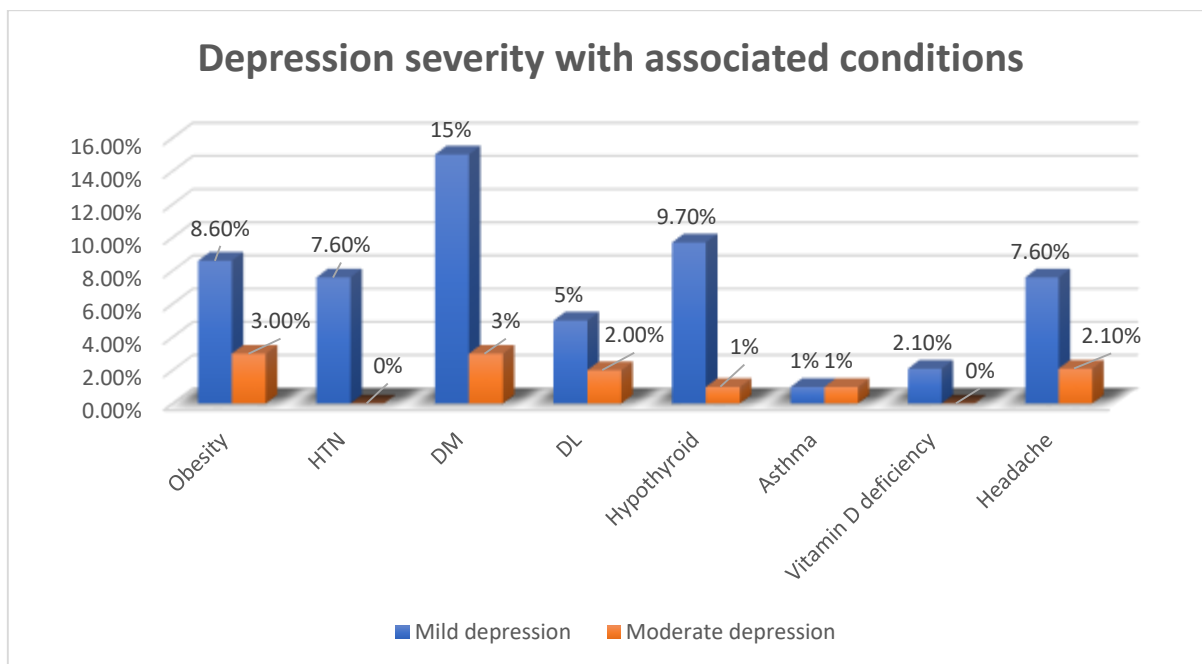
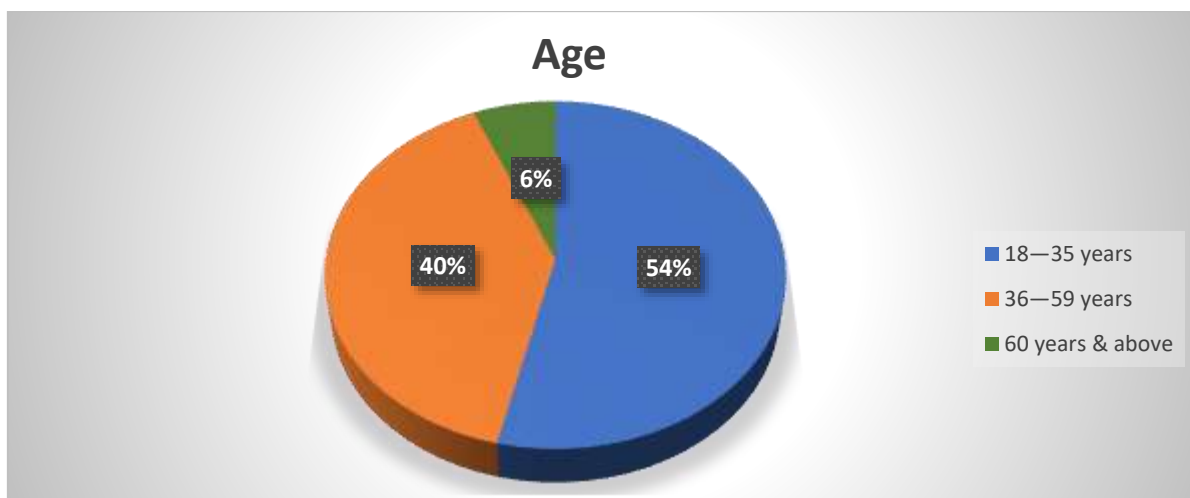
		Not at all	Several days	More than half days	Nearly every day
Q1	Little or loss of interest	270	84	22	2
Q2	Feeling depressed, down	267	91	20	0
Q3	Trouble sleeping	187	149	42	0
Q4	Feeling tired	164	159	54	1
Q5	Poor/increased appetite	242	123	13	0
Q6	Loss of self esteem	338	39	1	0
Q7	Trouble concentrating	281	82	15	0
Q8	Low voice or edgy	308	82	8	0
Q9	Suicidal ideation	375	3	0	0

Table 3: Association of depression & depression severity with variables (n=93)

Variables	Depression				Depression severity				
			%	p value	Mild	%	Moderate	%	p-value
Gender	Male	28	30%	0.000	27	29%	01	01%	0.000
	Female	65	70%		47	50.6%	18	19.4%	
	18—35 years	44	47%		34	36.5%	10	10.5%	

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Age	36—59 years	38	41%	0.048	31	33%	07	08%	0.174
	≥ 60 years	11	11.8%		09	9.7%	02	2.1%	
Nationality	Local	80	86%	0.743	63	68%	17	18%	0.806
	Non-local	13	14%		11	11.9%	02	2.1%	
Smoking	Smoker	08	8.6%	0.275	07	7.6%	01	01%	0.378
Associated conditions	Obesity	11	11.8%	0.012	08	8.6%	03	3.2%	0.024
	HTN	07	7.6%	0.013	07	7.6%	00	00%	0.006
	DM	17	18%	0.232	14	15%	03	03%	0.441
	DL	07	7.5%	0.055	05	05%	02	2.1%	0.091
	Hypothyroid	10	10.8%	0.018	09	9.7%	01	01%	0.040
	Asthma	02	2.1%	0.639	01	01%	01	01%	0.572
	Vitamin D def	02	2.1%	0.738	02	2.1%	00	00%	0.501
	Headache	09	9.7%	0.239	07	7.6%	02	2.1%	0.490



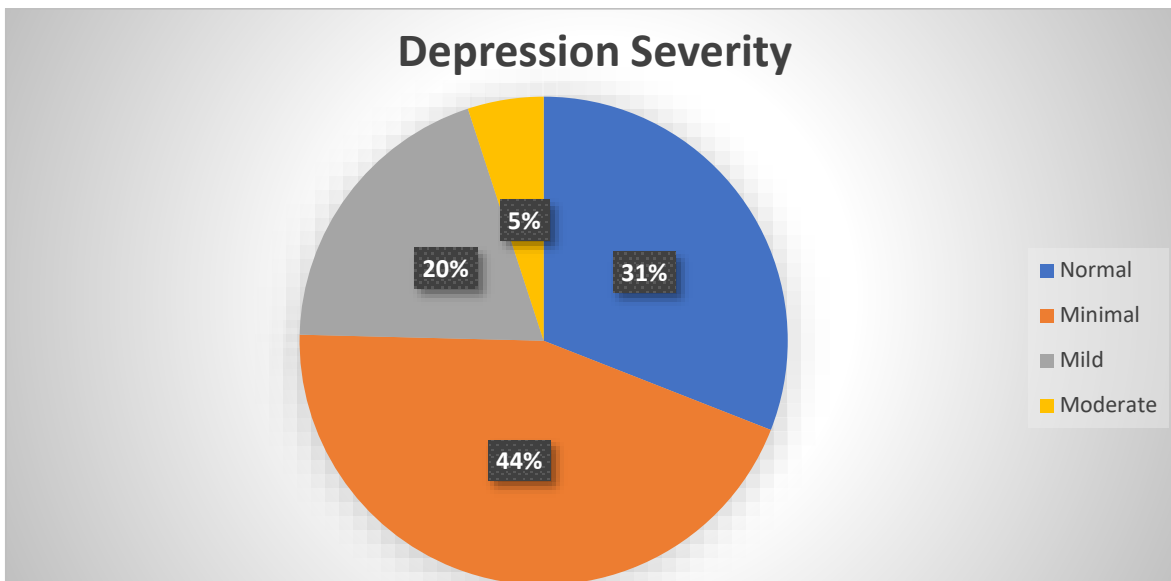


Table 4: PHQ-9- Depression severity (score) among study subjects (n=378)

Scale	None	Minimal	Mild	Moderate	Moderately severe	Severe	Total
Score-	0	1-4	5-9	10-14	15-19	20-27	
Number	117	168	74	19	0	0	378
Percent	31%	44.4%	19.6%	5%	0	0	100%

DISCUSSION

There is growing concern worldwide, about depression among adult people and UAE is not an exception. Seeking psychiatric help is still considered as a stigma in the regional society.

This is the first study carried out in Hatta on screening and prevalence of depression among adult patients attending Family medicine clinic in Hatta Hospital. In our study, the overall prevalence of depression among screened patients was 24.6%. Out of these 79.6% had mild & 20.4% moderate depression. Among patients with depression, 70% were females. These findings correspond well to the literature, which suggests that women demonstrate a higher risk for depression compared to men. The high prevalence of depression of 30.3% also reported in a study of PHC patients in Zomba, Malawi.^[21] Study carried out in Riyadh, Saudi Arabia, prevalence of depression was 12—19%.^[22] Whereas in a Study by Abdul Wahid et al in 2011, primary care setting Saudi Arabia, prevalence was 12%.^[23]

Direct comparison of different prevalence studies for depression is difficult because of lack of uniformity as studies differ in terms of patient population like age group, diagnostic instrument and methodology as many studies conducted for example on younger age group, students or females only or in patient with certain medical conditions like Diabetes and workers in certain conditions and circumstances.

The prevalence of depression reported in previous studies conducted in the UAE varies from 12.5–28.6% due to various population characteristics and sample sizes.^[24]

Systematic review of electronic databases of literature published revealed 14 articles conducted on depression in UAE between 2007- 2017. Of these 6 studies reported depression prevalence^[25-29]

In a recent study of 2019 in Dubai by Mona Latiff et al screening general population, a part of house hold survey revealed the overall prevalence of depression 2.3%.^[30] The relatively low rate of depressive disorders in Dubai could be explained as it was of general population survey, not of specified group or patients. In the socioeconomic and political context, the positive manifestation of determinants, Dubai is a politically stable emirate with good law enforcement. It has a low unemployment rate.

The association between depression and chronic medical illnesses, though not fully understood, might be mediated through behavioral mechanisms which then limit and decrease in pursuit of rewarding activities and subsequently the presence of anhedonia.

In terms of NCD, literatures report a correlation between depression and smoking^[31,32], diabetes, asthma, arthritis, cancer and chronic conditions such as obesity, cardiovascular disease including stroke.^[33] In our study among depressed (n=93), 8.6% were current smoker (p vale 0.275), obesity (p value 0.012), Hypertension (p value 0.013), Diabetes (p value 0.232) and hypothyroid (p value 0.018) were significantly associated with depression.

STUDY LIMITATIONS

To our knowledge this is first study carried out in Hatta. Our study has some limitations such as screening carried out in

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Family medicine clinic, a primary care setting where participants were patients who had mainly sought help and visited for some medical condition, lacking generalizability. We relied on cutoff of PHQ-9 score of ≥ 5 for point prevalence for screened depression. This might have resulted over estimate vs actual. The cross-section study design limits conclusion of association of risk factors and no casual inference may be made. Other factors like employed or not, marital status and education level were not considered in sociodemographic history. Larger multicenter studies are needed to allow generalization the findings to the larger populations. The study carried out when Covid pandemic storm has just passed but still around. There is strong possibility some patient might have effect of the illness they had passed through.

Statement of ethics

This study was approved by the DHA Audit Committee and all the participants were reassured that the data collected was confidential and anonymized.

Conflict of Interest:

The authors have no conflict of interest.

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