

The prevalence and correlates of depression among patients with chronic diseases in the UAE

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Background and Objectives

- The World Health Organization (WHO) definitions:
 - Chronic disease: as the existence of a variety of physical health problems, which require health management for at least one year or even more than 10 years, such as hypertension, hyperlipidemia, cancer and diabetes.
 - Depression: “sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness and poor concentration.”
- Depression has also maintained the name of being the leading cause of disability in the world.

Depression & chronic Diseases

- Chronic diseases have been associated with an increased prevalence of depression by 6-34%.
- Depression has been associated with:
 - A worsened prognosis of chronic diseases
 - Decreased compliance to medications
 - Decreased physical activity
 - Increased tobacco and alcohol use.
 - Decrease in quality of life (example: restricted activity or missed workdays)

Why was this study conducted?

- Chronic diseases are a major public health problem in the UAE and are the leading cause of mortality and morbidity.
- Mental health is currently a priority in the UAE public health agenda.
- Despite the high prevalence of chronic diseases in this country, limited attention has been given to the influence of depression on chronic disease outcome and quality of life.
- **Aims:** To estimate the prevalence and correlates of depression in a sample of chronic disease patients and identify risk factors.

Materials and Methods:

Study Design

- Cross sectional study
- Primary health care clinics in Al Ain

Study Tool

- Demographic features: Age, Education level, Family support, Family history, Disease type, Duration of disease, Management adherence
- Patient Health Questionnaire (PHQ)-9 is a reliable and valid measure of depression severity and a useful clinical and research tool.

PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)				
Over the <u>last 2 weeks</u> , how often have you been bothered by any of the following problems? (Use "✓" to indicate your answer)	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

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=Total Score:

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all <input type="checkbox"/>	Somewhat difficult <input type="checkbox"/>	Very difficult <input type="checkbox"/>	Extremely difficult <input type="checkbox"/>
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Study Population

Inclusion criteria

- Patients with any chronic disease (CD-10) aged 20-79 years (of all nationalities)
- Able to consent

Exclusion criteria

- Medical/Psychiatric comorbidities
- Previously diagnosed depression or diagnosed in the first follow-up

Prevalence of Depression

- Prevalence of Depression (at cutoff 5) was **37% (95% CI: 32% - 41%)**

Depression, n(%)	
Minimal depression (score =0-4)	265 (63.5%)
Mild depression (score = 5-9)	99 (23.7%)
Moderate depression (score= 10-14)	33 (7.9%)
Moderately severe depression (score = 15-19)	13 (3.1%)
Severe depression (score = 20-27)	7 (1.7%)

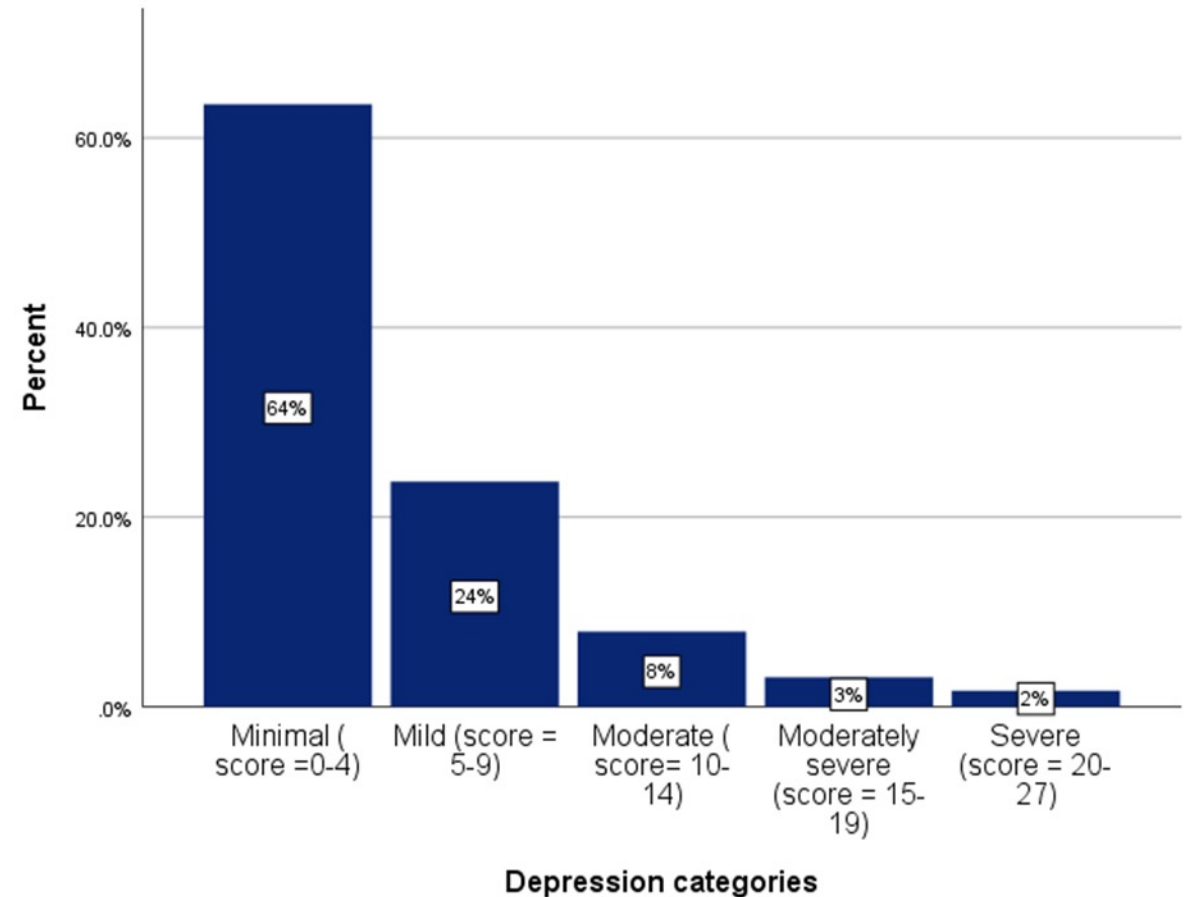


Table 1: Socio-demographic and comorbidities characteristics (n=417)

Gender, n (%)	
Female	254 (61%)
Age (years 3 cat), n (%)	
20-34 years	36 (9%)
35-54 years	138 (33%)
≥55 years	240 (58%)
Work status, n (%)	
Full time	96 (23%)
Part time	17 (4%)
Retired	91 (22%)
other	205 (49%)
Education, n (%)	
Illiterate	115 (28%)
School degree (primary, preparatory, secondary)	206 (49%)
University degree	79 (19%)
Post graduate	9 (2%)
Chronic Diseases	
Type 1 DM, n(%)	23 (6%)
Type 2 DM, n(%)	220 (53%)
Hypertension, n(%)	242 (58%)
Heart Disease, n (%)	50 (12%)
Chronic Kidney Disease, n(%)	9 (2%)
Cancer, n (%)	4 (1%)
Asthma, n (%)	36 (9%)
Autoimmune, n (%)	3 (1%)
Years with condition, Median (IQR)	8 (4-15)

Table 2: Socio-demographic and comorbidities characteristics associated with depression severity

Characteristic	Minimal depression (score =0-9) 364 (87%)	Moderate depression (score = 10-14) 33 (8%)	Severe depression (score = 15-27) 20 (5%)	P-value†
Gender, n(%)				
Male	138 (90%)	8 (5%)	7 (5%)	0.240
Female	216 (85%)	25 (10%)	13 (5%)	
Age (years 3 cat), n(%)				
20-34 years	28 (78%)	3 (8%)	5 (14%)	0.006
35-54 years	127 (92%)	11 (8%)	0 (0%)	
≥55 years	206 (86%)	19 (8%)	15 (6%)	
Work status, n(%)				
Full time	90 (94%)	4 (4%)	2 (2%)	0.368
Part time	14 (82%)	2 (12%)	1 (6%)	
retired	77 (85%)	9 (10%)	5 (5%)	
other	175 (85%)	18 (9%)	12 (6%)	
Education, n(%)				
Illiterate	91 (79%)	10 (9%)	14 (12%)	0.001
School degree(primary ,preparatory, secondary)	190 (92%)	14 (7%)	2 (1%)	
University degree	66 (84%)	9 (11%)	4 (5%)	
Post graduate	9 (100%)	0 (0%)	0 (0%)	
DM1, n (%)				
No	342 (87%)	32 (8%)	20 (5%)	0.684
Yes	22 (96%)	1 (4%)	0 (0%)	
DM2, n (%)				
No	170 (86%)	18 (9%)	9 (5%)	0.674
Yes	194 (88%)	15 (7%)	11 (5%)	
Hypertension, n (%)				
No	151 (86%)	16 (9%)	8 (5%)	0.725
Yes	213 (88%)	17 (7%)	12 (5%)	
Heart Disease, n(%)				
No	325 (89%)	29 (8%)	13 (4%)	0.013
Yes	39 (78%)	4 (8%)	7 (14%)	
Chronic Kidney Disease, n(%)				
No	358 (88%)	32 (8%)	18 (4%)	0.059
Yes	6 (67%)	1 (11%)	2 (22%)	
Cancer, n (%)				
No	361 (87%)	32 (8%)	20 (5%)	0.421
Yes	3 (75%)	1 (25%)	0 (0%)	
Asthma, n (%)				
No	337 (88%)	30 (8%)	14 (4%)	0.007
Yes	27 (75%)	3 (8%)	6 (17%)	
Autoimmune, n (%)				
No	361 (87%)	33 (8%)	20 (5%)	1.000
Yes	3 (100%)	0 (0%)	0 (0%)	
Years with condition, Median (IQR)	8 (4-15)	12 (4.75-20)	8 (5-14.50)	0.249

† Continuous variables were compared using the Kruskal-Wallis test, while discrete variables were summarized using the Chi-square or Fisher's Exact test.

Results:

- The majority (63%) of the sample were females, 21.5% with university education with a 57.97% above 55 years of age and a mean duration of chronic disease was 10.11 (SD±8.00).
- The **prevalence** of Depression was **37%** (95% CI: 32% - 41%) based on a **cut-off score of 5**;
- Severe depression was present in 1.7% and mild-moderate in 34.7 % of the participants.
- Depression was statistically significantly associated with
 - **Increasing patients age** (p:0.006)
 - **Low level of education** (p:0.001)
 - **Increase duration of chronic disease** (p:0.051)
 - Presence of **asthma** (P:0.002) and **heart disease** (p:0.005).

Conclusion:

- The study highlights for health care professionals and policy makers the **importance of mental health** as part of a **comprehensive management** plan for patients with chronic diseases.
- A **multidisciplinary** comprehensive program will improve the **long-term outcomes** of these patients.
- The **mental health** of patients with chronic conditions is **neglected**.
- Patients with chronic diseases **need** more **support** and counseling at primary care levels.

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