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## Study of major depression among elderly patients attending three primary health care centers in Baghdad city

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### Abstract

**Background:** Depression is the most common psychiatric disorder among old age people and it's detection and treatment is a matter of skill. The study's goal is to assess depression in older primary care patients in Baghdad. To determine if depression is linked to age, gender, marital status, economic situation, or physical ailment.

**Method:** A cross-sectional research of 178 senior patients aged 65 and older was undertaken to investigate depression prevalence. Eight individuals were removed owing to interview rejection. The remaining 170 patients consented and completed the questionnaire. ICD-10 checklist criteria are used to diagnose severe depression based on patient reports or physician confirmation.

**Results:** In a study of 170 elderly patients aged 65-80 in Baghdad, a 35.3% prevalence of major depression was found, with higher rates in females (47.6%) than males (23.3%), and among the divorced, widowed, or separated (56.3%) compared to married individuals (25.4%). Depression was more prevalent in those of low socioeconomic status (55%) and those with chronic physical illnesses (50%).

**Conclusion:** One third of primary health care older patients has significant depressive disorder, although none have been diagnosed by general practitioners. Gender, marital status, socioeconomic position, and physical ailment are connected with depression.

**Keywords:** Major depression, elderly, attending, primary, health care, centers, Baghdad, city

### Introduction

Aging is both a biological reality and a construct shaped by societal norms, with its understanding varying significantly between developed and developing countries. In developed regions, chronological age, such as 60 or 65, often marks the onset of old age, coinciding with retirement ages and signaling a shift in societal roles and identity <sup>[1]</sup>. Contrarily, in many developing countries, the concept of old age is less tied to chronological age and more to the capacity for active contribution, emphasizing the loss of roles due to physical decline as a critical determinant of old age <sup>[2]</sup>. This global aging phenomenon has led to an increased demand on healthcare systems, with depression emerging as the most prevalent psychiatric disorder among the elderly. Despite its severity and commonality, depression frequently remains undiagnosed and untreated, underscoring the vital role of primary healthcare centers in its identification and management. Healthcare providers at these centers are urged to utilize simple, effective tools and guidelines to detect and address depression, equipped with the necessary education and knowledge <sup>[3]</sup>. Depression in the elderly is not merely a transient sadness but a persistent mood disorder that significantly disrupts daily life and is not considered a normal part of the aging process <sup>[4, 5]</sup>. The prevalence of depression among the elderly is notable, yet it often goes unnoticed due to a lack of diagnosis and treatment. It is a leading cause of disability, negatively impacting quality of life, social interactions, and overall satisfaction, further exacerbating issues like social isolation, cognitive decline, and increased mortality rates. Despite growing interest and research in geriatric depression, estimating its prevalence has been challenging, with findings varying widely, partly due to methodological differences across studies.

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The prevalence rates range from 1% in community-dwelling elderly to 22% in primary care settings, highlighting a greater prevalence of depressive symptoms over major depressive disorder in these populations [6-8]. Interestingly, while some studies suggest a decrease in depressive disorders post-65, the inclusion of individuals older than 80 years in other studies indicates a potential increase in depression prevalence beyond this age. This discrepancy underscores the complexity of diagnosing and managing depression in the elderly, further complicated by ageist attitudes, co-morbid medical conditions, and the tendency to somatize symptoms [7, 9]. Older adults may experience different depressive symptoms compared to younger individuals, often with a greater focus on somatic complaints. They are particularly susceptible to major depressive episodes with melancholic features, including profound sadness, hypochondriasis, low self-esteem, and suicidal ideation. The course of depression in the elderly is typically characterized by relapses and a chronic trajectory, with a high mortality rate and a significant proportion of patients experiencing persistent depressive symptoms over time [10, 11]. Given this backdrop, the study aims to elucidate the prevalence of depression among elderly primary health care patients in Baghdad city and to explore associations between depression and various sociodemographic factors such as age, gender, marital status, economic status, and physical illnesses. This objective underscores the critical need for targeted interventions and enhanced awareness within healthcare settings to address the complex challenges of diagnosing and treating depression in the aging population.

## Method

This research was a descriptive cross-sectional study, focusing on the assessment of depression among elderly patients attending primary health care centers (PHCC) in Baghdad. The study was conducted over a five-month period from December 1, 2011, to May 1, 2012, with data collection occurring three days a week, four hours each day, from 8:30 am to 12:30 pm. The research setting included three randomly selected PHCCs in Baghdad: AL Salam PHCC, AL Mustansiriya PHCC, and AL Salikh PHCC. The sampling strategy employed was convenience sampling, targeting a total of 170 elderly patients, aged 65 years and older, who were seeking services at these PHCCs. The inclusion criterion was straightforward, requiring patients to be 65 years or older and attending the PHCCs for any health-related issue. Approval for the study was obtained from the Directorate General of Baghdad al-Rusafa, ensuring adherence to ethical guidelines and securing the necessary permissions for conducting the research in the selected health care centers. Data collection was performed through interviews using a structured questionnaire, which gathered comprehensive information on general, personal, physical, and psychiatric health histories from the patients or their companions when available. The diagnosis of major depression was based on the ICD-10 checklist criteria, with medical illnesses reported by the patients being confirmed through medical reports or by the attending physicians. Participants provided informed consent before partaking in the study. However, the study faced some limitations, including a relatively small sample size, attributed to the

limited duration of the study and the reluctance of some elderly individuals, particularly those seeking dental care, to participate in the survey. Exclusion criteria for the study encompassed patients with acute illnesses and those who refused to partake in the interview process. For data analysis, the study utilized the SPSS version 17 (Statistical Package for the Social Sciences) for statistical computation. Both chi-square tests and T-tests were applied as necessary to examine the data, with the significance level set at P values of  $\geq 0.05$ ,  $< 0.05$ , and  $< 0.01$  to determine the statistical significance of the findings. This methodological approach aimed to provide a comprehensive understanding of the prevalence and factors associated with depression among the elderly population attending PHCCs in Baghdad.

## Results

The sample consisted of a total 170 subjects with an age range of 65-80 years with a mean age of  $68.5242 \pm 6.6$ , as show in table (1) with no significant difference between mean ages in regards to depression. Male constitute 50.6%, while female constitute 49.4%. Depressed female 47.6%, were more than depressed male 23.3%, As show in table (2) with highly significant with P value  $< 0.01$ .

There was higher prevalence of depression among widow, divorced or separated 56.3% in comparison to married group 25.4% with highly significant statistical difference as show in table (3) P value  $< 0.01$ . Higher prevalence of depression 55% among patients of low socioeconomic group, with statistical different from middle and high income group 24% as show in table (4) with P value  $< 0.01$ . Higher prevalence of depression 50% among patients with chronic physical illnesses in comparison to those who were depressed and free of chronic physical illnesses 16% with highly statistical significant as show in table (5) with P value  $< 0.01$ .

**Table 1:** Distribution of depression disorder according to age

	No.	%	Mean age
Depression	60	35.3	67.2986
No depression	110	64.7	68.6567

P-value = 0.460

Insignificant difference

**Table 2:** Distribution of depression disorder according to gender

Gender	Depression		Non depression		Total	
	No.	%	No.	%	No	%
Male	20	23.3	66	76.7	86	100
Female	40	47.6	44	52.4	84	100
Total	60	35.3	110	64.7	170	100

P- value = 0.001

Gender difference is highly significant

**Table 3:** Distribution of depression disorder according to marital status

Marital status	Depression		Non depression		Total	
	No.	%	No.	%	No.	%
Married	29	25.4	85	74.6	114	100
Single	0	0	1	100	1	100
Others (divorced, widow, Separated)	31	56.3	24	43.7	55	100
Total	60	35.3	110	64.7	170	100

P-value = 0.0004

The difference is highly significant

**Table 4:** Distribution of depression disorder according to Socioeconomic status

Socioeconomic Status	Depression		Non depression		Total	
	No.	%	No.	%	No	%
Low	49	55	40	45	89	100
Middle	10	14	61	86	71	100
High	1	10	9	90	10	100
Total	60	35.3	110	64.7	170	100

p-value=0.000001.

The difference is highly significant

**Table 5:** Distribution of depression disorder according to physical illness

Physical illness	Depression		Non depression		Total	
	No.	%	No.	%	No	%
Yes	48	50	48	50	96	100
No	12	16.2	62	83.8	74	100
Total	60	35.3	110	64.7	170	100

P-value=0.0004

The difference is highly significant

## Discussion

The growing elderly population in Europe and globally has increased the urgency of determining the prevalence of mental illnesses, with melancholy being the most prevalent [12]. A 35.3% prevalence of depression was observed in the sample for this study. These results are similar to those of community-based studies conducted in Turkey [13] and Europe [14] and Korea [15], where the percentages ranged from 35% to 39.3%. However, those percentages are still higher than those found in Bahrain [3] (23.1%). Due to the restricted age range of this study, the findings did not establish a statistically significant correlation between age and melancholy. An additional factor to consider is the potential lack of utilization of primary health care centers by the elderly population in Baghdad city. Variation in the sample size and cross-cultural differences, in addition to the use of distinct methodologies, may have contributed to this result. Nonetheless, these results corroborated those of European [16] and Al-Bahrain [3] studies, but were in contrast with those of a Turkish study [13]. In European studies, a higher prevalence of depression was consistently observed among elderly women and those living in impoverished socioeconomic conditions [12]. Depressed elderly women comprised 47.6% of the participants in this study, compared to 23.3% of the men (ratio 2/1). Research conducted in Europe [16] and Saudi Arabia [17] has identified geriatric female gender as a risk factor for melancholy among the elderly.

AL Additionally, according to a Bahrain study [3], females are 2.3 times more melancholy than males. According to a study conducted in the Saudi Arabian city of Abha, melancholy is more prevalent among women [18]. A Malaysian cross-sectional study identified female and unmarried status as associated factors [19]. A Turkish study found no correlation between sex and the prevalence of depression [13]. It is widely acknowledged that social support plays a significant role in mitigating or preventing depression. A significant correlation of 56.3 percent was found between being divorced, bereaved, separated, or widowed and depression, compared to 25.4 percent for being married, according to this study. Consistent results have been reported in Turkey [13], Europe [16], and Saudi

Arabia [17], according to the findings of this study. An additional risk factor identified as substantially associated with depression in the elderly is low socioeconomic status, which accounted for 55% of the cases in this study. The findings of this research are consistent with those of European and Saudi Arabian studies [16, 17], which reported that substandard housing conditions, interior degradation, and reduced income were correlated with a higher incidence of depression. A significant association was observed between depression and low income among elderly Nigerians [20]. In Malaysia, a low total family income was identified as a critical factor [19].

A significant correlation was observed between low income and the prevalence of depressive disorder among elderly Latinos [21]. Only a study from Turkey found no agreement with the aforementioned research [13]. Unsightly general physical health constitutes an additional risk factor that must not be disregarded. Life dissatisfaction, chronic medical conditions, and physical disability were all significantly correlated with depression. 50% in this survey is consistent with findings from research conducted in Turkey [13] and Europe [16]. Previous research conducted in Saudi Arabia [17] similarly reported that the primary care physician did not identify any of the diagnosed depressed patients; this finding aligns with these results and may be elucidated by due to the reality that primary health care physicians and general practitioners have limited time to engage with patients who typically present with somatic symptoms at the primary health care center.

## Conclusion

The study cohort exhibited a point prevalence of severe depression at 35.3%; none of the cases had been previously identified by general practitioners. Significant variations were observed among melancholy groups with respect to gender, marital status, socioeconomic standing, and chronic physical ailments.

## Conflict of Interest

Not available

## Financial Support

Not available

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