SJIF Impact Factor: 6.711

WORLD JOURNAL OF ADVANCE HEALTHCARE RESEARCH

ISSN: 2457-0400
Volume: 8.
Issue: 12
Page N. 83-87
Year: 2024

Original Article www.wjahr.com

PREVALENCE OF DEPRESSION AMONG ELDERLY PATIENT WHO ATTEND MOSUL GENERAL HOSPITAL IN MOSUL CITY

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Received date: 09 October 2024 **Revised date:** 30 October 2024 **Accepted date:** 20 November 2024

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ABSTRACT

Background: Depression is marked by prolonged periods of intense sadness or a loss of interest or enjoyment in activities. An estimated 5% of persons worldwide are thought to be depressed; nevertheless, the prevalence of depression varies by sex, age group, geographical location, and cultural background. Numerous detrimental impacts of depression on health have been linked to greater mortality from suicide and a higher risk of physical disorders. **Objectives:** To investigate the prevalence of depressive disorders in elderly patients attending Mosul General hospital as well as studying of other characteristics linked to depressive disorders. **Methods:** An observational, descriptive, cross-sectional study was adopted in order to achieve the objectives of the present study. All patients who were older than 60 years attending psychiatric department of Mosul general Hospital between 10th of May 2024 to the end of October 2024 had been included. The questionnaire was composed from two parts. Part one for demographic information and part two for validated Geriatric Depression Scale (GDS-30) questions. **Results:** The study population is 200 participants; the mean age is 77.8 ± 7.8 years. The study revealed a high prevalence of depression among the old age people, affecting 79.5 % of the participants The majority of them were from the age group of 75 years and more (59.5%), males (52.5%), urban (82.5%), low educational level (illiterate, primary and secondary) (51.5%), married (66%), self-ranked unhealthy (71.5%), unemployed (78%), income level of less than 500,000 ID (75.5%), dependent (66.5%) and physical inactive (78.5%). Statistically significant differences among patients of more than 75 years (P = 0.032), urban residency (P = 0.002), low education (< 0.001) and unhealthy self-ranked (< 0.001), while no statistically significant differences were found with regards to gender, marital state, occupation, income levels, financial dependency and physical activity levels. **Conclusions:** Due to the high rate of depression in the elderly, recreational activities are essential for lowering depression in this population. Enhancing community-based efforts is necessary to support older individuals' independence within family units. Furthermore, screening, diagnosis, and treatment for mental health problems in older persons should begin in primary healthcare settings. Large-scale national studies should be done in order to determine mental health problems and related determinants throughout time.

KEYWORDS: Prevalence, Depression, Elderly, Mosul, Iraq.

1- INTRODUCTION

The World Health Organization defines depressive disorders, as mental illnesses marked by prolonged periods of intense sadness or a loss of interest or enjoyment in activities.[1] An estimated 5% of persons worldwide are thought to be depressed; nevertheless, the prevalence of depression varies by sex, age group, geographical location, and cultural background.[2] Numerous detrimental impacts of depression on health have been linked to greater mortality from suicide and a higher risk of physical disorders.[3]

Poor physical health, pain, institutional care, vision impairment, traumatic events, neuroticism, dementia, hypertension, stroke, high medication levels, child loss, loneliness, and inability to walk outside independently are all factors linked to depression in elderly.[4-5] However, fewer depressive symptoms have been linked to higher levels of religious engagement, greater functional health, a good outlook on life, and better perceived financial resources.[6] Despite conflicting results, a systematic review and meta-analysis on the differences between urban and rural areas in depression in older adults discovered evidence that living in an urban area may raise the chance of developing depression in elderly.[7]

In countries like Iraq, financial difficulties and wars have made mental health problems worse, particularly for the elderly.[8] Many Iraqi people have suffered from depression, and they are vulnerable to negative consequences of it.[9] Due to the greatest extent of the recent ISIS offensive Mosul attack in 2014–2017, which destroyed about seventy percent of Mosul's public hospitals, a lot of people with depression are neglected. Researches on depressive disorders in the elderly has received little attention, in spite of projections and evidence of the condition as well as the increasing number of older persons. Therefore, the aim of the study is to investigate the prevalence of depressive disorders in elderly patients attending Mosul General hospital as well as studying of other characteristics linked to depressive disorders.

2- METHODS

The survey was confidential and did not include any information that might be used to identify a specific individual. Ethical approval was given by Nineveh Health Directorate.

The current study is a an observational, descriptive, cross-sectional study was adopted in order to achieve the objectives of the present study. All patients who were older than 60 years attending psychiatric department of Mosul general Hospital between 10th of May 2024 to the end of October 2024 had been included.

Iraqi patients aged 60 years and above, both genders, conscious, willing to participate were included. Those below 60, with sensory and cognitive impairments, or unwillingness to participate, were excluded.

Demographic data (gender, age, marital state, place of residence, occupation, educational level, income state and financial dependency), self-ranked health state, physical activity, detailed information about depressive symptoms were fixed by using a validated Geriatric Depression Scale (GDS-30).[10] The validated GDS-30 measured depressive symptoms in older people and was offered in both short and long Arabic versions. It is appropriate for evaluating depression in both healthy and medically ill individuals. A total score ranging from 0 to 30 was assigned to correct answers. Data analysis was done using SPSS (Statistical Package for Social Sciences) software version 26 (IBM Corporation, USA).

3- RESULTS

The study population is 200 participants, the mean age is 77.8 ± 7.8 years. It's evident that the majority were from the age group of 75 years and more (59.5%), males (52.5%), urban (82.5%), low educational level (illiterate, primary and secondary) (51.5%), married (66%), self-ranked unhealthy (71.5%), unemployed (78%), income level of less than 500,000 ID (75.5%), dependent (66.5%) and physical inactive (78.5%) as shown in in table 1.

Table 1: Socio-demographic and economic features of participants (number = 200).

Variables	Category	No.	%
Age	60-74 years	81	40.5
	75 years and more	119	59.5
Gender	Male	105	52.5
	Female	95	47.5
Residency	Urban	165	82.5
	Rural	35	17.5
Educational level	Illiterate	44	22
	Primary	62	31
	Secondary	35	17.5
	Higher education	59	29.5
Marital State	Married	132	66
	Single	9	4.5
	Widow	41	20.5
	Divorced	18	9
Self-ranked health	Healthy	57	28.5
	Unhealthy	143	71.5
Occupation	Employed	44	22
	Unemployed	156	78
Income level	Less than 500,000 ID	151	75.5
	More than 500,000 ID	49	24.5
Financial dependency	Dependent	133	66.5
	Independent	67	33.5
Physical activity	Active	43	21.5
	Inactive	157	78.5

The study revealed a high prevalence of depression among the old age people, affecting 79.5 % of the

participants, of this, 49.5% experienced moderate depression, while 30% suffered from severe depression as shown in table 2.

Table 2: Prevalence of depression in the respondents (number = 200).

GDS- 30 scores	No.	%
Normal to mild (0-9)	41	20.5
Moderate (19)	99	49.5
Severe (20-30)	60	30

Table 3 shows statistically significant differences among patients of more than 75 years (P = 0.032), urban residency (P = 0.002), low education (< 0.001) and unhealthy self-ranked (< 0.001), while no statistically significant differences were found with regards to gender, marital state, occupation, income levels, financial dependency and physical activity levels.

Table 3: Comparison of sociodemographic predictors of depression (number =200).

Variables	Category	Yes Number (%)	No Number (%)	P-value
Age	60-74	62 (76.5)	19 (23.5)	**0.001**
	75 and more	78 (65.5)	41 (34.5)	
Gender	Male	77 (73.3)	28 (26.7)	0.473
	Female	71 (74.7)	24 (25.3)	
Residency	Urban	135 (81.8)	30 (18.2)	**0.002**
	Rural	25 (71.4)	10 (28.6)	
Educational level	Low education	103 (73.0)	38 (27.0)	**< 0.001**
	Higher education	26 (44.0)	33 (56.0)	
Marital State	Married	93 (70.4)	39 (29.6)	0.411
	Unmarried	49 (72.0)	19 (28.0)	
Self-ranked health	Healthy	29 (50.8)	28 (49.2)	**< 0.001**
	Unhealthy	131 (91.6)	12 (8.4)	
Occupation	Employed	31 (70.4)	13 (29.6)	0.063
	Unemployed	117 (75.0)	39 (25.0)	
Income level	Less than 500,000 ID	117 (77.4)	34 (22.6)	0.091
	More than 500,000 ID	36 (73.4)	13 (26.6)	
Financial dependency	Dependent	101 (75.9)	32 (24.1)	0.690
	Independent	51(76.1)	16 (23.9)	
Physical activity	Active	29 (67.4)	14 (32.6)	0.805
	Inactive	107 (68.1)	50 (31.9)	

4- DISCUSSION

The prevalence of depression among the elderly population who attend Mosul general hospital in Mosul is 79.5% (moderate and severe), which indicated an alarming event and a significantly higher than rates reported in various international studies, but close to several earlier Iraqi studies. For example, a recent study from Diyala found the prevalence of depression among elderly is 74.4%.[11] And from studies in Iraq's Mosul and Baghdad cities which were reported rates of 65.3% and 72.8% respectively.[12,13] The severity of the problem in Iraq is highlighted by the fact that countries have lower rates of depression among the elderly. Such as India (52.4%), North West Ethiopia (45.9%), Nepal (47.3%), rural Nigeria (44.7%), Egypt (44.4%), Vietnam (66.9%), Portugal (61.4%) and Brazil (49.8%), Turkey (18.5%), China (11.6%), Pakistan (16.0%), and South Africa (40%).[14-24] The study explored significant higher rate of depression among very old patients (older than 75 years) which is runs with Silva et al study findings.[25] From the other hand, urban residence also founded to be statistically significant difference in the current study as a result of widespread poverty and lack of entertainment places, in contrast to Laura Corneliusson et al which found that living in an urban/rural environment was not associated with an increased risk of depression.[26] Moreover; patients with lower education found in the current study to have statistically significant higher depression rate in comparison to those high education, which is parallel to the study conducted by Saad Ahmed Ali Jadoo et al.[11] While self-ranked of been unhealthy was found to be more prevalent and statistically significant as aligning with global studies from Ethiopia, Sri Lanka, China, and the report of WHO.[27-30] Of note; it's critical to recognize the study's limitations, such as the possibility of recall bias and the cross-sectional design that precludes the development of causal correlations. However, this study offers important new information about the urgent problem of depression among the elderly in Mosul. Nonetheless, significant regions in both northern and southern Iraq still require thorough investigations. Additionally; the study highlights how urgently social support networks and focused treatments are needed to lessen the impact of depression on the Mosul's elderly population.

5- CONCLUSION AND RECOMMENDATIONS

In summary, a substantial number of surveyed elderly individuals exhibited moderate (49.5%) or severe depression (30%). Advancing ages, urban residency, low education and unhealthy self-ranked are predisposing factors for depression in elderly. Due to the high rate of depression in the elderly, recreational activities are essential for lowering depression in this population. Enhancing community-based efforts is necessary to support older individuals' independence within family units. Furthermore, screening, diagnosis, and treatment for mental health problems in older persons should begin in primary healthcare settings. Large-scale national studies should be done in order to determine mental health problems and related determinants throughout time.

ACKNOWLEDGEMENT

We appreciate the assistance offered by the medical staff at Al Mosul general Hospital (psychiatric consultation unit) and the thorough attention of Nineveh Directorate of Health gave to our study project. This study could not have been done without the assistance of each of these people.

Conflict of intertest

About this study, the authors disclose no conflicts of interest.

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