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THE RELATION BETWEEN ATTENDING GERIATRIC CLINIC and MENTAL DISORDERS in ELDERLY PEOPLE

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Abstract*:*
This study was conducted to estimate the prevalence and distinguish kinds and related factors of Mental Disorders among elderly people attending Geriatric Clinic, Baghdad, Iraq. Methodology: A cross-sectional study conducted and a systematic random sampling technique was used to select 320 elderly people. We collected data on basic demographics and associated risk factors using a questionnaire filled through self-reported questionnaire. Mental disorders (MDs) were defined according to Kessler Psychological Distress Scale (K10) with a cutoff score of 20+. Accredited tools used by WHO were utilized to identify mental disorders kinds. Results: The prevalence of MDs in the study sample was 24.4%. The prevalence of MDs types were: Depression 16.6%, anxiety 12.8%, dementia 5.3%, substance abuse 2.5%, suicide thoughts 5.6%, and suicide attempts 2.5%. Logistic regression analysis was used to examine the determinant factors of elderly MDs revealed the following significant factors: Aging, smokers, living depends on others, loneliness and social isolation, visual impairment, economic state deterioration, neglect and mishandling, and chronic diseases are the determinant factors of elderly MDs. Conclusions: Mental disorders are wide spread among elderly people and enhanced elderly mental health care services should be provided.

Keywords: Prevalence, Risk factors, Iraq, Mental Health, geriatrics clinic.

INTRODUCTION

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" [(1)]. the mental health (MH) is fundamental to health and prosperity so it should be recognized, which including older persons, with similar urgency like physical health [(2)]. As resulting in reduced of mortality and improved the interventions of public health, the ageing of population has been universal occurrence. Today, the people are living longer with healthy life. This represents public health win, advancement in medical field, and economic evolution although disease and infection that have constrained human life expectancy for thousands of years [(2, 3)]. There is no general agreement on the age at which a person becomes old. The old age defines not only an individual's look, but it is also refers to power loss and position but the WHO and UN agreed cutoff is 60+ year's age to refer to the older population [(4)]. The proportion of the world's population over 60 years and over is growing each year. In 2015, the proportion of the world's elderly people was 12% and expected to increase to 22% in 2050 [(5, 6)]. The same trend is also predicted in the Eastern Mediterranean Region (EMR) which includes Arab countries, elderly population rate to total population was 5.8% in year 2000, it is expectant to reach 8.7% by year 2025 and 15.0 % by 2050 [(7)]. In Iraq, the proportion of the population aged 60 and above increased from 3.4 % in 2010 to 5% in 2014 and expected to reach 7.2 % of 2050 and the life expectancy in male 71.4 year and 74 year in female [(8, 9)]. The Iraq population suffered from unstable and stressful conditions (wars, sanctions, social strikes and

widespread violence) which have involved several generations of the population. The entire country is, as a result, in an extremely complex psychosocial situation.

MATERIAL & METHODS

Study population

The people aged 60 year (both sex) and more who attending the geriatric clinic of Baghdad Medical City during March 1st - September 30th, 2017 and agreed to participate in the study.

Tools of study

A structured questionnaire was developed by the researcher and the academic supervisor for the purpose of study after reviewing of related studies. Questions were depended on a the questionnaire of psychology that be non-specific which includes various questions to collect information associated to measure mental distress level in studies and mental health for population. This tool has been used extensively in mental health studies of WHO at the global level [53, 54].Previous studies have shown that these questionnaires are an excellent tool for the evaluation of mental disorders[53, 54].Also standardized question adopted from depended references (Appendix1) [55-59]. Data was collected through self-assessment questionnaire with assist of researcher to keep away from misinterpretation and to make sure clear on all matters.

The data collected to gather the following

- The socio-demographical data as: Age, gender, residence, education status, current marital status, current job, income level, smoking history, and alcohol history.
- The mental health related factors for elderly people like: ability loss to live independently, loneliness, vision and hearing senses deterioration, neglect and mishandling, deterioration of the social and economic status, and comorbid physical illnesses (cardiovascular disease, respiratory disease, DM disease, chronic joint pain and cancer).
- Mental disorder evaluation in the elderly was performed by using of 10 questions based on Kessler psychological Distress Scale (K10) [55].
- Depression examination was done by using a short version of the geriatric depression scale (GDS); which include 15 questions. And score >10 points is almost always indicate of depression [56].
- Anxiety examination in the elderly was accomplished by utilizing brief measure version for assessing generalized anxiety disorder (GAD). Which include 7 questions; for each question divided to four degree from zero score to 3 score? And score >10 points is almost always indicate of anxiety [57].
- Dementia examination old people were done by utilizing a modified brief measure version for assessing dementia. Which include 10 questions; one point for each errors answers. And score >3 points is almost always indicate of dementia [58].
- The evaluation of the substance abuse status in the elderly was performed by using modified set of seven questions based on (Assist screening test version 3.0).Score >3 point is indicative of addiction [59].
- Suicide status examination (suicide thoughts and attempts) in the elderly which include question; positive response answered by (yes) and negative response answered by (no). If answered (yes) from suicide attempts asking also suicide attempts methods.

Data management and analysis

The data was analyzed by using Statistical program called SPSS (version 21) after data coded and each questionnaire assigned a serial identifier number. The following analysis plan was used:

- The data was presented as frequency tables and graphs.
- A Chi square test applied to test significance of association between categorical variables.
- Logistic regression analysis applied to identify the determinant associated factors of geriatric mental health.
- The level of significance was set at P value of ≤ 0.05.

RESULTS

A total of 355 respondents that attending to Geriatric Clinic of Baghdad Medical City was approached by the researcher and 320 agreed to participate and they filled out the questionnaire correctly, giving a respond rate of 90.14%.

Characteristics of study sample

Table 1 shows the characteristics of studied sample which distributed in two age categories, the most prevalent were in 60-69 years age category that constitute 217 (67.8%) and the Most of them were males 224 (70%) of study sample.

Table 1: Characteristics of the studied sample

Variables	Category	no.	%
Age (years)	60-69	217	67.8
	≥ 70	103	32.2
Sex	Male	224	70.0
	Female	96	30.0
Current residence	Central of Baghdad	279	87.2
	Peripheral of Baghdad	41	12.8
Education level	None or primary school	128	40.0
	Intermediate or secondary school	124	38.8
	College or post-graduate	68	21.2
Current marital state	Married	111	34.7
	Unmarred(single, widowed, and divorced)	209	65.3
Current work	Yes	94	29.4
	No	226	70.6
Income level	Enough	105	32.8
	Not enough	215	67.2

Smoking history	None	213	66.6
	Ex-smoker	53	16.6
	Current smoker	54	16.9
Alcohol history	None	258	80.6
	Ex-drinker	48	15.0
	Current drinker	14	4.4

Socioeconomic factors and co- morbid diseases among study sample

Figure 1 shows the distribution of co- morbid diseases, social, and economic factors among study sample

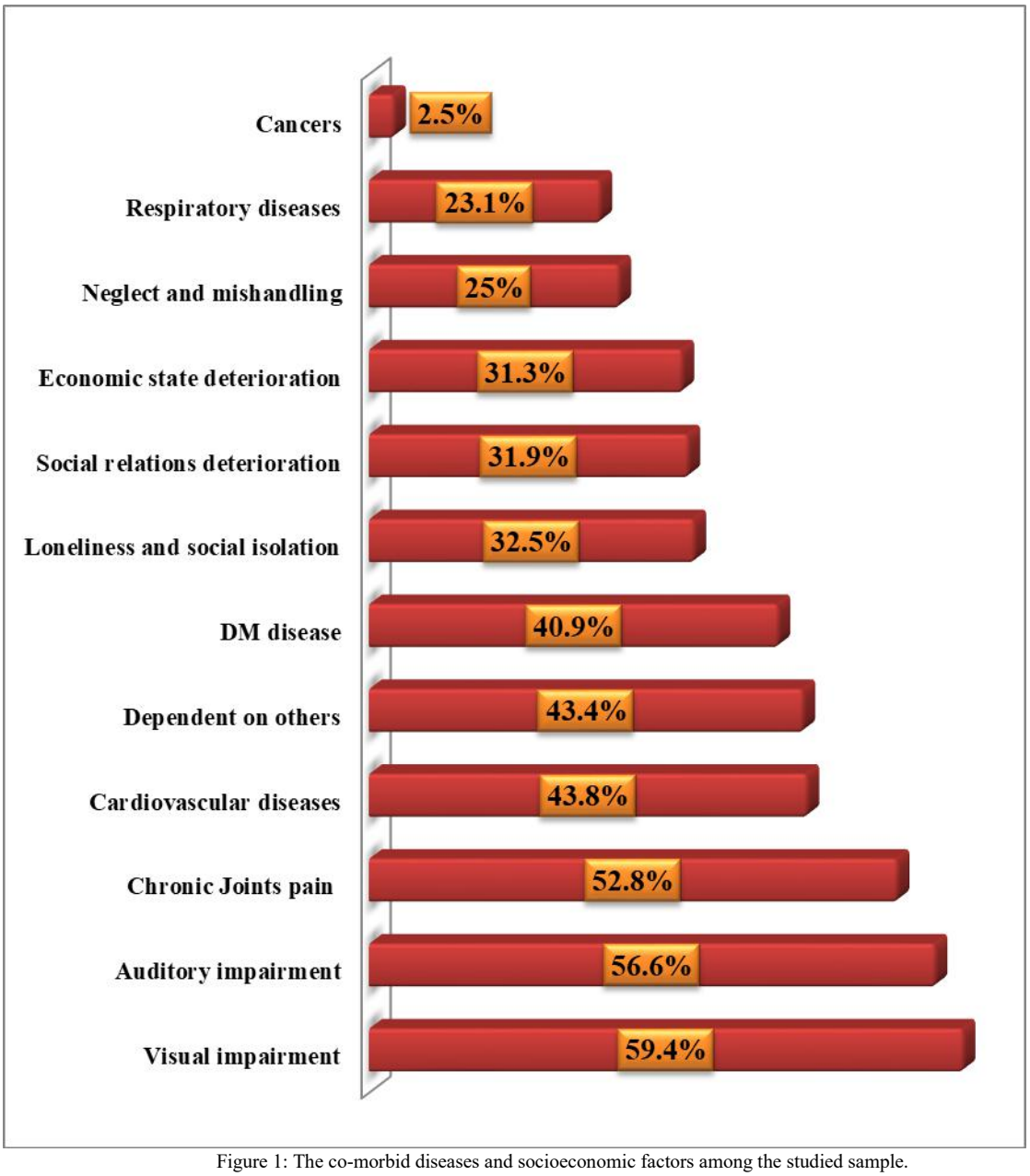

Figure 1: The co-morbid diseases and socioeconomic factors among the studied sample.

Distribution of mental disorders in study sample

Figure 2 shows the prevalence of mental disorders in study sample was 24.4 %(95%CI=19.85- 29.53%).

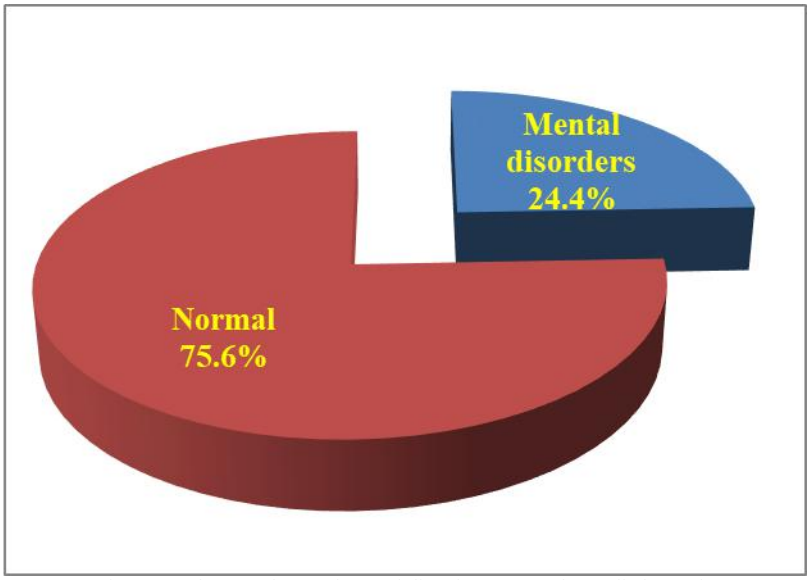

Figure 2: The prevalence of mental disorders among the studied sample

While, Figure 3 shows the prevalence of the common mental disorders in study sample

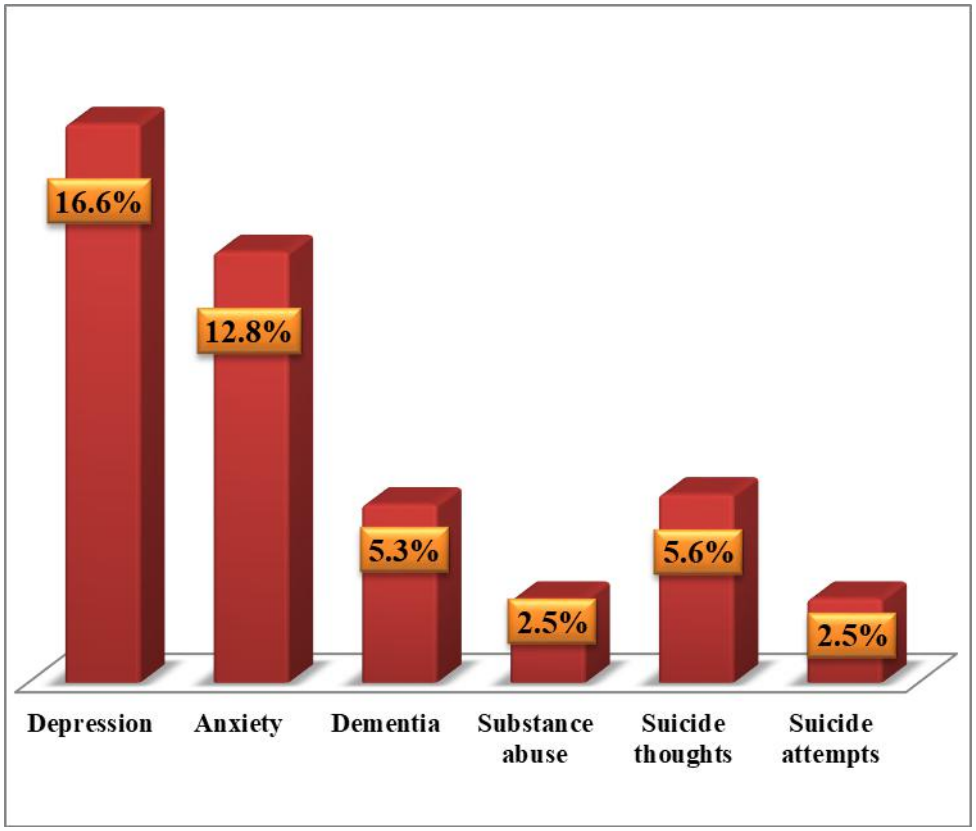

Figure 3: The prevalence of the common mental disorders among the studied sample.

Age distribution of mental disorders among the study sample

Table 2 shows the age distribution of mental disorders in studies sample which distributed in two age categories (60-69) and (≥ 70) years age.

Table 2: Age distribution of mental disorders among the studied sample

	60-69 y		≥ 70 y		Total		χ^2	P- value
	no.	%	no.	%	no.	%		
Mental disorders	45	57.7	33	42.3	78	24.4	4.840	**0.028**
Depression	30	56.6	23	43.4	53	16.6	3.656	0.056
Anxiety	22	53.7	19	46.3	41	12.8	4.316	**0.038**
Dementia	3	17.6	14	82.4	17	5.3	20.70	**0.001**
Substance abuse	4	50.0	4	50.0	8	2.5	1.193	0.275
Suicide thoughts	12	66.7	6	33.3	18	5.6	0.011	0.915
Suicide attempts	6	75.0	2	25.0	8	2.5	2.485	0.659

Determinant factors of elderly mental disorders by Logistic regression analysis

The only significantly associated variables were entered for the binary logistic regression analysis and the determinant factors of elderly mental disorders were shown in table 3.

Table 3: Logistic regression showing the determinant factors of mental disorders

Factors	β	SE	95% C.I.		P-value
			Lower	Upper	
Age	13.7	7.56	9.40	20.2	**0.016**
Currently smoking	13.8	4.45	11.7	16.4	**0.003**
Dependents on others	19.25	8.32	8.06	24.8	**0.019**
Loneliness and social isolation	53.4	8.83	18.4	53.5	**0.003**
Visual impairment	14.9	6.82	4.63	21.8	**0.009**
Economic state deterioration	32.9	6.29	14.7	42.4	**0.003**
Neglect and mishandling	46.02	8.12	15.7	49.2	**0.003**
Cardiovascular diseases	9.79	6.69	9.23	17.7	**0.048**
Respiratory diseases	20.9	7.90	4.22	27.2	**0.001**

DM disease	17.2	8.15	4.22	20.8	**0.003**
Chronic joint pain	11.1	6.21	5.593	17.4	**0.037**
Cancers	32.9	6.22	21.8	57.1	**0.003**

Socioeconomic factors associated with mental disorders among study sample
Table 4 shows distribution of dependent on others in living, Loneliness and social isolation, Visual impairment, auditory impairment, social and economic status deterioration and neglect and mishandling status of the studied sample with mental disorders among study sample

Table 6: Socioeconomic factors associated with mental disorders among studied sample

	Mental disorders							
	YES		**NO**		**Total**			
Variable	**no.**	**%**	**no.**	**%**	**no.**	**%**	χ^2	**P-value**
Dependent on others living	53	38.1	86	61.9	139	43.4	25.221	**0.001**
Loneliness and social isolation	77	74.0	27	26.0	104	32.5	206.155	**0.001**
Visual impairment	65	34.2	125	65.8	190	59.4	24.544	**0.001**
Auditory impairment	55	30.4	126	69.6	181	56.6	8.170	**0.004**
Social relations deterioration	55	53.9	47	46.1	102	31.9	70.908	**0.001**
Economic state deterioration	72	72.0	28	28.0	100	31.3	178.973	**0.001**
Neglect and mishandling	70	87.5	10	12.5	80	25.0	230.580	**0.001**

DISCUSSION

The mental health is as significant in elderly person compare to any other age, biological factors and psychological factors estimate mental health level of elderly person at any point of time. Mental health is significant to societies to meet the specific needs of elderly person [(11)]. It is likely MDs prevalence was underestimated at least to some extent because those people with mental disorders having a higher refusal rate than those without disorders, specially people with chronic NCD, visual and auditory impairment or Social and economic status deterioration that may lead to bias in the estimates of MD prevalence[(12)]. The observed

rate of MDs among elderly was 24.4%. It is higher than that reported in Iraq mental health survey (IMHS) 18.8% [10].This difference is might be attributed to the ongoing violence, deterioration of the security, social and economic situation of the Iraq. In USA survey shown the adults aged 65 and older met criteria for MDs was20.4%[13], and European study was 23.3% [14] with rates of prevalence are highest located in Geneva 30.4%, London city 28.4% and Jerusalem city 27.0%. rates of prevalence is low for any present mental disorders were found in Hamburg city 23.3%, Madrid city 21.0 and Ferrara city 19.5 % [14, 15]. The study revealed that the prevalence of depression and anxiety disorders among elderly were 16.6% and 12.8% respectively. It is higher than that reported in IMHS (10%, 11.3% respectively) [10]. This might be attributed to the long exposure to wars, widespread violence and socioeconomic state deterioration. It is much higher than that reported in USA study (6.8%, 11.4%% respectively) [13] and European study (8.0%, 11.9%% respectively) [14, 15]. The current study was consistent with many studies [116- 20] where nearly elderly people quarter dependent on careers reported important psychological abuse, over a third of family careers report perpetrating important elderly abuse and one in ten report physical abuse. Over 80% of care home staff had observed abuse; this probably reflects the isolated and secretive nature of the abusive act. The observed findings, shows the prevalence of the MDs among those with visual impairment was significantly higher than those visual not impairment. Also the prevalence of the MDs among those with auditory impairment was significantly higher than those auditory not impairment. Visual or hearing loss is an acquired case that deteriorates gradually over time. Older adults with visual or hearing loss are have health problems, decreased the activities and roles of restricted social as contrast to those without loss of sensory [21-23].

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