Original Paper

The Prevalence of Depression among Health Care Workers in Kerbala and Babylon/ Iraq 2020

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Abstract

Background: Depression is a health problem of epidemic dimension; one of the most common mental disorders affecting more than 300 million people worldwide. Depression is characterized by a wide variation of symptoms including abnormal and persisting affective changes associated with sadness, feelings of worthlessness, guilt and hopelessness, pessimistic, suicidal, self - harm thoughts, impaired capacity to perform everyday tasks and functions, and hypochondriasis.

Objectives: To measure the prevalence of depression among health workers in hospitals and primary health care centers in Kerbala governorate.

Subjects and methods: A cross sectional study, the study population was consisted of 300 Health Care Worker. The data was collected with a questionnaire consisting of socio-demographic variables screened for depression by a standardized scale Patient Health Questionnaire-9 (PHQ-9).

Results: The prevalence of depression among health care worker was 85%. Further categorization of depression into grades revealed that mild depression prevalence was (36.3%), moderate (31%) and severe (17.7%). The prevalence rate of depression was significantly higher among females (87.2%) than males (81.8%), while no significant difference was found between the two governorates or between rural and urban residents.

Conclusion: The prevalence of depression among Health Care Workers was remarkably high. There was a significant association between gender and depression. The highest prevalent types of depression were mild, followed by moderate depression.

Key words: Depression, health care workers, prevalence.

Introduction

Among all health issues, mental health problems were neglected for centuries, people used to pay attention to their physical illness carefully while ignoring and rarely seeking help for their mental illness, which is not any less important. Depression is one of the most common mental disorders affecting more than 300 million people worldwide [1]. In 2012, the World Health Organization (WHO) reported that depression is the leading cause of disability and a major contributor to the overall global burden of disease for both males and females. However, depression is 50% higher for females than males [2, 3]. The WHO has classified depression as the single largest contributor to global disability (7.5% of all years lived with disability in 2015) and the proportion of the global population with depression was equivalent to 4.4% in 2015 [4]. Depression is defined according to WHO as persistent sadness and a lack of interest or pleasure in previously rewarding or enjoyable activities for at least two weeks [1]. The typical symptoms of depression according to the international classification of depression (ICD10) are depressed mood, loss of interest, reduced energy as main symptoms. Also, other symptoms that include poor concentration, disturbed sleep, diminished appetite, reduced self-esteem, feelings of

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worthlessness, guilt and pessimistic, suicidal, self - harm thoughts [5]. To be diagnosed with depression, symptoms must persist for at least two weeks [6].

It is important to mention that depressive disorders are strongly related to the occurrence and course of many chronic diseases, including diabetes mellitus, cancer, cardiovascular disease, asthma, and obesity, that can have devastating consequences, including suicide [7].

Nowadays, almost everyone is at risk for having depression due to the stressful life style and the impact of work, especially health care workers, due to their frequent exposure to risk factors such as long working hours, short breaks, low work control, high emotional demands and insufficient technical facilities [8, 9].

A study done in 2012 in the Eastern region of Saudi Arabia reported that the prevalence of depression was about (32.8%) [9]. In a systematic review from 15 countries, seven European, four Asian, and four Middle East countries, the overall pooled prevalence of depressive symptoms was 28.8% among Health Care Workers. The prevalence of depression ranged from 20.9 to 43.2% according to the instrument used and increased every year [10].

Stress is common among working population worldwide and the prevalence of work-related stress among health care workers was estimated in Amsterdam in 2016 that showed about 22% of health care workers had general stress, 17% had work-related fatigue, 12% were distressed [11].

Depression has been known to impair job performance and productivity as found among Australian employees in 2017 [12].

Depressed health workers function poorly at work which influences other aspects such as the quality of interaction with patients and colleagues [13].

Depression can negatively impact health care workers personality, their professional development, and the patient to whom they provide care [14].

It must be taken into consideration the fact that a major barrier to access treatment and recovery from depression and any other mental disorder and mental illness is that it is considered as a stigma among general population and among heath care workers themselves that impacts help-seeking behaviors [15-19].

In addition, some features of depression are denial and a sense of helplessness, thus no employee would want to be termed depressed [20].

This study aims to measure the prevalence of depression among health care workers in hospitals and PHC's in Kerbala in 2020 and the sociodemographic factors that may influence it such as work type, educational status, economic level and other factors.

Subjects and methods

A cross sectional study conducted among health care workers in Kerbala and Babylon governorate.

This study was done to measure the prevalence of depression among health care workers in (Al-Husseini hospital, the Maternity hospital and three Primary Health Care (PHC) centers in Kerbala governorate and Al Sadiq hospital and three PHC centers in Babylon governorate, from 1st August 2019 till 30th June 2020, using a self-administered questionnaire in Arabic language.

A total of 300 health care workers were selected conveniently from both genders and from different age groups and their consent was taken to answer the questionnaire.

The questionnaire contained ten questions related to the demographic data. In addition to nine questions related to assessment of depression. Depression was assessed using some questions from validating questionnaire used in Patient Health Questionnaires-nine (PHQ-9). The answer for these questions was according to a Likert scale (not at all, several days, more than half a day, and nearly every day). A PHQ-9 score ≥10 had a sensitivity of 88% and a specificity of 88% for major depression. PHQ-9 scores of 5, 10, 15, and 20 represented mild,

moderate, moderately severe, and severe depression, respectively [21].

The data was entered in Microsoft Excel and analyzed by using the statistical pac age for social program (SPSS software version 25). Variables were presented as mean, standard deviation (SD), or frequencies and proportions. Level of significance was agreed at ($p < 0.05$). An official agreement was obtained from the University of Kerbala, College of medicine to visit and collect data from hospital and PHC. The researcher explained the purpose of the study, to participants according to the researcher ethical paper through informed consent from the parents.

Results

The study population consisted of 300 health care worker participants. The gender distribution showed that males formed 121 (40.3%) and females formed 179 (59.7%), majority of them were married, (70%) with medium socioeconomic level as showed in table 1 with other sociodemographic characteristic features.

The frequency of depressed health care worker was 255 (85%), while the frequency of non-depressed was 45 (15%) as shown in figure 1.

Depression among health care workers was further categorized into mild, moderate, severe depression, therefore mild depression was noticed among 109 (36.3%), moderate depression form among 93 (31%) and severe depression fom among 53 (17.7%) as shown in figure 2.

The gender shows differences on depression, were females more prone to depression than males. Depression among rural health care workers was found to be more than among urban, also divorced health care workers showed the highest prevalence of depression.

Regarding night sealant, statistical analysis showed that health care workers with 31 year of work or more were less depressed than with years of work below 30 years.

Table 1. The demographic and other characteristics of Health Care Workers in Kerbala and Babylon governorates/Iraq in 2020 (n-300)

Variable	Group	Frequency	Percentage
Gender	Male	121	40.3
	Female	179	59.7
Residency	Urban	238	79.3
	Rural	62	20.7
Marital state	Married	210	70.0
	Single	86	28.7
	Divorced	2	0.7
	Widow or widower	2	0.7
Economic level	Weak	5	1.7
	Medium	183	61.0
	Good	103	34.3
	Excellent	9	3.0
Educational level	Primary School	4	1.3
	Intermediate School	19	6.3
	Secondary School	98	32.7
	Diploma	175	58.3
	MSc	1	0.3
	PhD	1	0.3
Work place	PHC	132	44.0
	Hospital	167	55.7
Evening work	No	224	74.7
	Yes	76	25.3
Night sealant	No	249	83.0
	Yes	51	17.0
Total		300	100.0

Further analysis was done by dividing depression into grades (mild, moderate, and severe (Figure 2).
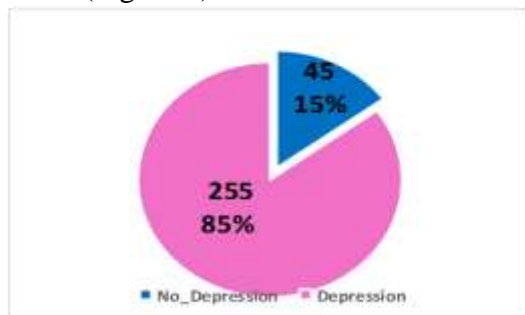

Figure 1. The frequency of depression of health care workers in Kerbala Health Directorate in 2020 (n= 300)
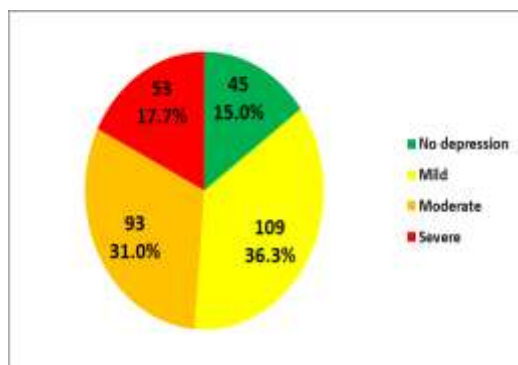

Figure 2. The distribution and severity of depression among health care workers in Kerbala and Babylon governorates/Iraq in 2020 (n-300)

Further analysis of the distribution and severity of depression showed significant differences (Figure 3).

Comparison of the prevalence of depression between Kerbala and Babylon health care workers in Kerbala and Babylon governorates showed no significant differences.

A significant predictor for depression was the gender (p value <0.05), as shown in table 2.

Discussion

The prevalence of depression among health care workers was high (85%) which might be attributed to the unstable security situations in Iraq and the frequent exposure to traumatic events which negatively affects employee health. Also, the huge number of attendants to PHC and the poor supplies and integrated health services increase the tension and stress and probably depression among health care workers. Similarly, another study was done in Baghdad revealed a high prevalence of depressive symptoms among health care workers (70.25%) [22]. A recent study published in Riyadh in Saudi Arabia showed that prevalence of depression was (49.9%), on the other hand another study in Eastern region of Saudi Arabia revealed a prevalence rate of depression equal to (32.8%) [23].
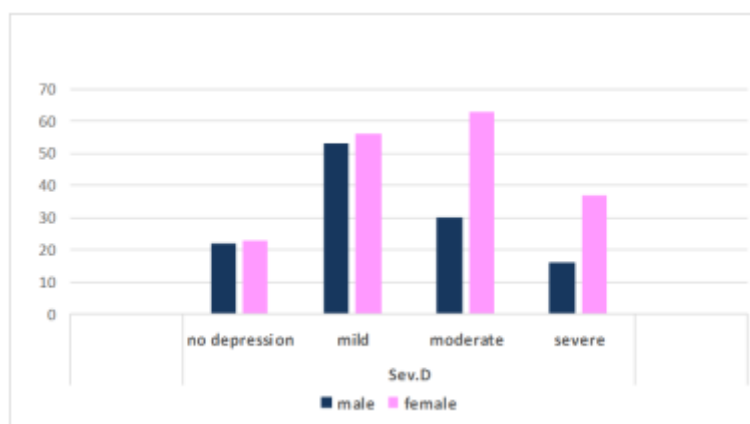

Figure 3. The gender distribution of depression severity among health care workers in Kerbala and Babylon governorates/Iraq in 2020 (n-300)

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Table 2. The association between demographic factors and severity of depression among health care workers in Kerbala and Babylon governorates/Iraq in 2020 (n-300)

Variable		Severity of depression								P value
		No depression		Mild Depression		Moderate depression		Severe Depression		
		Count	%	Count	%	Count	%	Count	%	
Age	Below 30 year	28	16.3	55	32.0	54	31.4	55	20.3	0.053
	31-50 year	10	10.3	37	38.1	34	35.1	16	16.5	
	50 year or more	7	22.6	17	54.8	5	16.1	2	6.5	
Gender	Male	22	18.2	53	43.8	30	24.8	16	13.2	**0.026**
	Female	23	12.8	56	31.3	63	35.2	37	20.7	
Residency	Urban	37	15.5	83	34.9	72	30.3	46	19.3	0.406
	Rural	8	12.9	6	41.9	21	33.9	7	11.3	
Marital state	Married	26	12.4	81	38.6	68	32.4	35	16.7	0.334
	Single	18	20.9	27	31.4	24	27.9	17	19.8	
	Divorced	0	0.0	1	50.0	1	50.0	0	0.0	
	Widow or widower	1	50.0	0	0.0	0	0.0	1	50.0	
Economic level	Weak	2	40.0	0	0.0	2	40.0	1	20.0	0.349
	Medium	29	15.8	64	35.0	60	32.8	30	16.4	
	Good	11	10.7	43	41.7	29	28.2	20	19.4	
	Excellent	3	33.3	2	22.2	2	22.2	2	22.2	
Educational level	Primary school	2	50.0	2	50.0	0	0.0	0	0.0	0.502
	Intermediate school	1	5.3	5	26.3	10	52.6	3	15.8	
	Secondary school	16	16.0	37	37.0	29	29.0	18	18.0	
	Diploma	26	14.9	64	36.6	53	30.3	32	18.3	
	MSc	0	0.0	0	0.0	1	100.0	0	0.0	
	PhD	0	0.00	1	100.0	0	0.0	0	0.0	
Work place	PHC	18	13.5	51	38.3	45	33.8	19	14.3	0.428
	Hospital	27	16.2	58	34.7	48	28.7	34	20.4	
Years of work	1-10 years	26	15.6	56	33.1	55	32.5	32	18.9	0.619
	11-20 years	5	11.1	21	46.7	12	26.7	7	15.6	
	21-30 years	3	11.5	11	42.3	8	30.8	4	15.4	
	31-40 years	4	19.0	10	47.6	6	28.6	1	4.8	
Evening work	NO	34	15.2	81	36.2	66	29.5	43	19.2	0.600
	YES	11	14.5	28	36.8	27	35.5	10	13.2	
Night sealant	NO	34	13.7	92	36.9	80	32.1	43	17.3	0.448
	YES	11	21.6	17	33.3	13	25.5	10	19.6	

In the present study, results showed that mild type of depression has the highest prevalence (36.3%) followed by moderate (31%) and severe (17.7%). This agrees with a study done in England by Erich E. Michial in which mild depression prevalence was (50%), moderate (30%) and severe (20%) [5].

In this study the age was not a significant predictor for depression, although high prevalence of depression was among health care workers with age groups below 50 years. However, several studies revealed that certain age groups are more prone to depression than others. A study in Eastern Saudi Arabia has indicated that high prevalence of depression is among young age groups (55.3%) [23].

Another study in South East Nigeria showed a high incidence of depression has been associated with late middle age [24].

One might speculate the reason behind this variation is due to cultural, environmental, stress factor as well as methodological differences and small sample size. Another reason of this variation could be due to the use of different scales of screening depression in the studies e.g. using hospital anxiety and depression scale versus the PHQ9.

In the present study gender was the only significant variable associated with depression where results revealed that females had

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a higher prevalence of depression than males. This agrees with several studies, one of them was done in Nigeria that showed depression is more common among female gender [22].

The predominance of depression among female workers might be related to sociocultural male dominant culture in oriental communities, in addition to the worse feeling of stigma in females than males [25], also the hormonal factor might play a prominence role.

No significant differences in prevalence of depression between rural and urban health care workers has been reported in this study however several studies have shown that prevalence expected to be less in rural area comparing to urban area [26, 27].

In this study no significant association between depression and education was demonstrated. Although, high percentages of depression were found among health care workers with MSc and PhD educational levels. On the other hand, another study found that (30%) of primary educated health care workers had depression and had significant association between depression and low educational level [28]. This disagree with another study which revealed that health care workers whose educational level was less than secondary school have the lowest rate of depression [29].

Regarding monthly income, there was no significant association between depression and economic state. However, a study in Bagdad reported that highest depression level was among health care workers with low economic level [22].

According to the findings of the current study there was no significant association between depression and how many years health care worker had spent in work. However, the study sample results showed a high prevalence of depression among health care workers who had years of work below 31 years.

Other studies mentioned time of daily work, a study in USA showed that health care workers with annual average of seven percent of full-time work had major form of depression [30].

Conclusion and Recommendations

According to the present study, depressive symptoms are highly prevalent among health care workers. Female health care workers were more prone to depression than males. Mild and moderate forms of depression had the highest prevalence.

Increase the awareness of benefits of early diagnosis to prevent major form of depression. The results of the present study need further validation by conducting larger sample size and conformation of screened patients with some gold standard for measuring depression. It is also recommended to conduct an optional annual screening of depression among Health Care Workers.

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