Original Article

Depression among Resident Doctors in Tehran, Iran

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Abstract: In developing countries, little evidence is available on the mental health status of health care providers, especially doctors. Therefore, the aim of this study is to obtain an estimation on the prevalence of depression among resident doctors of medical universities in Tehran, Iran.
Method: The study population consisted of 2251 resident doctors who worked in the hospitals of 3 medical universities located in Tehran.
Beck Depression Inventory (BDI) was used as the main instrument of this research
Results: The response rate was 68.28%.31.2% of the total study population had symptoms of depression (26% of the males and 39% of the females). Symptoms of depression were 2.3 times more frequent in females. Most depressed physicians did not have a history of psychiatric visit or treatment.
Conclusion:
This study demonstrates that depression is common among Iranian residents (particularly in females); however, most of them do not seek any treatment. This may lead to serious impacts on health behavior of the community in general. Moreover, depression may seriously affect physicians' professional function.
Key Words:
Depression, Iran, Mental health, Physician, Residency

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Physicians, like any other human beings, are prone to psychiatric disorders. However, mood disorders, anxiety disorders , eating disorders, adjustment disorders, personality disorders, substance abuse and some DSM-IV "V" codes are more common among physicians (1). Any of the mentioned disorders may be intensified or prolonged enough to affect the physician's life and carrier. Depression seems to be one of the most common disorders in physicians .

Depression in physicians not only affects their own personal and family lives, but also may have serious impacts on health behavior of the community in general. Furthermore, depression may seriously affect physicians' professional function. Among all physicians, resident doctors have an exceptional position. Residency training is a stressful course with frequent encounters with severely ill patients, lengthy work hours, the persistent threat of being sued by patients, and a need to study regularly to keep up to date. These factors make them vulnerable to depression .

Unfortunately, data on depression among physicians is considerably insufficient.

Although the actual incidence of depression in physicians is unknown, several studies illustrate that one-fourth to one-third of residents will be clinically depressed at some point in their training. Depression is more common in women, including women physicians (2).

Krakowski compared 100 physicians with 50 lawyers in the state of New York and found no significant difference in the incidence of mental illness or substance addiction. However, 20% of physicians reported depressive illnesses when inquiry was made regarding their history of illness caused by stress. Physicians reported more depressive feelings in response to both personal and professional stressors compare to lawyers(3).

One review of psychiatric disorders in medical trainees revealed a prevalence of 15% to 46% (4). Valko and Clayton reported that 30% of medical interns retrospectively reported the experience of significant depression during their internship; 25% of these depressed interns reported suicidal ideation, and many had a plan to commit suicide(5). This finding was confirmed by Reuben who reported a 29% rate of depression during the internship year with a prevalence as high as 34% during particularly stressful rotations (6). Furthermore, Schneider and Phillips reported a 35% prevalence of significant anxiety and depressive symptoms in a cohort of medical, surgical, and pediatric interns. Symptoms were consistent throughout the year, reflecting little adaptation to the demands of residency training(7).

Physicians who study or practice medicine in developing countries encounter additional challenges including shortage of health sector budget, low income and disparities in health care distribution. Moreover,

the need to study and work simultaneously make them more susceptible to psychological problems such as depression.

In our literature review, we did not find any extensive study on the prevalence of depression among Iranian physicians especially residents and this study is the first one to address the issue. The aim of this study is to assess the prevalence of depression among resident doctors of medical universities in Tehran, Iran.

Materials and Methods

The study population consisted of 2251 resident doctors who worked in the hospitals of 3 medical universities located in Tehran as a representative sample of Iranian residents. Due to the probable unwillingness of the subjects to report psychiatric symptoms, census sampling was used .

In this study, a multiple choice questionnaire was designed by the researchers and it included demographic characteristics, medical specialty, history of previous psychiatric visits, religious beliefs, and job satisfaction. A stamped envelope with the address of the chief researcher was distributed along with the anonymous questionnaires. There were also boxes in the physicians' residence at hospitals so the respondents could post the questionnaires or throw them in the boxes .

Beck Depression Inventory (BDI) was used as the main instrument of this research and has previously been translated and validated for Iranian population.(8) According to Beck's criteria, depression was defined as: mild (score 11-19), moderate (score: 20-25) and severe (more than 26) .The correlation of depression with demographic variables, medical specialty and history of psychiatric visits was also evaluated. Statistical significance of prevalence rates was evaluated using the [chi] 2 test.

The study was conducted from October 2002 to April 2003 in 3 main medical centers in Tehran: Tehran, Shahid Beheshti, and Iran Universities of Medical Sciences. The study was approved by the Research Ethics Committee at Tehran University of Medical Sciences.

Results

The number of residents that were available at the time of the study was 1753, however, only 1197 returned the questionnaires (response rate = 68.28%).

Most of the respondents were in 30-34 age range (55.5%).

Four hundred (33.4 %)of the respondents were females. The majority of the respondents (66%) were married; 34% were single, separated, divorced, or widowed. Seven hundred ninety-three subjects had identified their specialty. 11.8% of the subjects had previous psychiatric visits.

According to BDI scoring, 31.2% of the total study population had symptoms of depression. (28% of the males and 38 % of the females). As shown in Table 1 Symptoms of depression were 2.3 times more frequent in females ($X^2 = 6.91$, $P < 0.01$).

Table 1: Prevalence of depression among residents according to sex

Beck Score / Sex	<10 No depression		11-19 Mild depression		20-25 Moderate depression		>25 Severe depression		Total	
	N	%	N	%	N	%	N	%	N	%
Male	568	72	175	22.2	34	4.3	12	1.5	789	100
Female	245	62	119	30.1	17	4.3	14	3.5	395	100
Total	813	68.7	294	24.8	51	4.3	26	2.2	1184	100

Table 2: Number of psychiatric visits and/or treatment by depressed and non-depressed residents

Beck Score	Psychiatric Visit and/or treatment							
	No Psychotherapy				Pharmacotherapy		Both	
	N	%	N	%	N	%	N	%
≤ 10 No depression	751	91.3	31	3.8	32	3.9	9	1.1
11-19 Mild depression	246	83.7	14	4.8	30	10.2	4	1.4
20-25 Moderate depression	41	75.9	3	5.6	9	16.7	1	1.9
>25 Severe depression	17	65.4	4	15.4	3	11.5	2	7.7
Total	1055	88.1	52	4.3	74	6.2	16	1.3

Prevalence of depression did not have a significant correlation with age, but it was more frequent in the married and this difference was significant (P value: 001).

As the table 2 demonstrates, most depressed residents did not have a history of any psychiatric visit or treatment($X2 = 33.54$, P value< 0.0001)..

BDI scores and severity of depression did not have a significant correlation with the specialty of the residents.

Discussion

BDI was used as a screening tool to detect depression in residents.

Thus, it is not clear whether our finding reflects a true prevalence of clinically significant depression in the study population or it merely mirrors a transient, stress related depressive reaction. However, it may portrait a rough estimate of depression in Iranian resident doctors.

Using Diagnostic and Statistical Manual of Mental Disorders-IV criteria, Mohammadi et al estimated that the prevalence of major depressive disorder in Iran is 2.98% (9). In this study, the prevalence of depression was higher, suggesting that resident doctors may be more susceptible to depression compare to the Iranian general population.

Our findings are similar to previous studies which have shown that the prevalence of depression in residents is around 30% (4, 5).

The higher prevalence of depression of female in this study is compatible with other findings showing that depression is more frequent among women in all cultures (2, 10, 11).

In our study, married physicians were also more depressed than single ones. This difference may be due to financial pressures and additional responsibilities.

It is notable that most depressed physicians did not have any history of psychiatric visits or treatment. Because of the stigma of mental disorders, many physicians will delay or avoid treatment. A number of physicians can not diagnose depression for themselves or will underestimate their problem and some will hide suicidal ideas and plans because they fear to be hospitalized or to lose their medical qualifications .

Delayed treatment may be dangerous. Some physicians may have symptoms of depression for weeks, months or years. They may be malnourished, sleep-deprived, hopeless, and even psychotic. They will need urgent and sometimes aggressive treatments .

Physicians, trainees, and medical schools' staffs should be aware of the risks of the residents' depression, particularly among women .

Physicians should have enough information about symptoms of depression and the risk of impairment and resources for obtaining help must be provided for them. Every medical school needs mental heath facilities to provide easily accessible psychiatric treatments for its students and it should maintain the essentials of confidentiality. These services should also educate doctors to recognize and confront a colleague who seems to be suffering from depression .

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