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Prevalence and Associated Risks of depression Among Patients Attending the Primary Healthcare Centers in Tabuk, Saudi Arabia

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ABSTRACT

Background: Depression is on the rise globally and is associated with a high rate of mortality, morbidity, and suicide.

Objective: To evaluate depression and associated risk factors among patients visiting primary healthcare centers in Tabuk, Saudi Arabia.

Subjects and methods: This cross-sectional study conducted in Tabuk, Saudi Arabia during the period from June 2016 to July 2017, 560 participants were recruited from primary health care centers by a stratified sampling technique. Participants were invited to sign a written informed consent, then interviewed using the PHQ-9 questionnaire. The questionnaire consisted of nine questions with four choices each and asking about interest or pleasure in doing things, feeling down or hopeless, the pattern of sleep, tiredness, appetite, the degree of movement or speaking, concentration, or thought of better dead off or hurting self. The Statistical Package for Social Sciences (SPSS) was used for data analysis and the ethical committee of the Medical College, the University of Tabuk approved the research.

Results: Participants (61.2% females), 63.9% were in the range of 18 and 24 years; the majority had higher education, nearly two thirds 66.3% were single. Mild depression was evident in 21.6%, moderate depression in 21.3%, while 4.1% had severe depression. Women had more depression than men with a significant statistical difference (P-value<0.05, no differences in severity of depression was found regarding age, and marital status (P-value>0.05).

Conclusion: Depression is prevalent among patients attending primary healthcare centers in Tabuk and was commoner among females. No relationship was observed between depression severity, marital status, and age.

Keywords: Depression, Associates, Tabuk, Saudi Arabia

INTRODUCTION

Depression is on the rise globally; this mental health disorder is associated with various organic diseases and 69% of patients with depression present with somatic symptoms[(1)]. Although depression is common worldwide, the developing countries are harboring the greatest burden; this serious mental health disorder is associated with high morbidity and mortality[(2)]. Depression has multiple underlying risk factors including stress, chronic medical illness, family history, low income, job loss, substance abuse, and female gender[(3)].

The prevalence of depression varied across the globe with the lowest rate (8.5%) reported in Europe[(4)] and rate as high as 44% in developing countries with only one third receiving medical care[(5,6)]. The prevalence of depression increased significantly in the last decade, and the World Health Organization stated that nearly 15% of patients with major depression have a lifetime risk of committing suicide[(7)]. Previous studies conducted in the Kingdom of Saudi Arabia[(8)] reported prevalence between 30-40% among primary healthcare visitors. The rates differ according to geographical location, the time of the study, and population ages. The Kingdom of Saudi Arabia is a vast country with different culture and ethnicity. The study conducted in Western countries and other regions of the Kingdom may not apply to Tabuk region. Thus we conducted this research to assess depression among patients visiting the primary healthcare centers in Tabuk City, Saudi Arabia

SUBJECTS AND METHODS

This cross-sectional study was conducted in Tabuk City, Saudi Arabia during the period from June 2016 to July 2017. Five hundred and sixty participants were selected from patients attending the primary health care centers using multistage randomization. The participants were asked to sign a written informed consent form, then a face to face interview was conducted using a structured questionnaire based on the PHQ-9 questionnaire; a well-validated questionnaire. The questionnaire consisted of nine questions

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inquiring about if they were bothered by the following problems during the past two weeks:

- Little interest or pleasure in doing things
- Feeling down, depressed, or hopeless
- Trouble falling or staying asleep, or sleeping too much
- Feeling tired or having little energy
- Poor appetite or overeating
- Feeling bad about themselves
- Trouble concentrating on things like newspaper or television
- Moving or speaking so slowly that people could have noticed or the opposite that being so fidgety or restless and moving around a lot more than usual
- Thoughts that you would better off dead or of hurting yourself in some way

Each question has four options: 0=not at all, 1=several days, 2=more than half the days, and 3=nearly all days, with three indicating the severest dysfunction. A score of 1-4 is minimal symptoms, 5-9 mild depression, 10-14 moderate depression, 15-19 moderately severe depression, and 20-27 severe depression. A score≥10 has a specificity and sensitivity of 88% for major depression[9,10].

The demographic data including age, sex, marital status, and level of education were also collected. The ethical committee of the Medical College, University of Tabuk approved the research, and the Statistical Package for Social Sciences was used for data analysis. Descriptive analysis involving Chi-square test was used to test significance of association between categorical variables. A p-value of <0.05 was considered significant.

The study was done after approval of ethical board of University of Tabuk.

RESULTS

Out of 560 patients, female dominance was apparent (61.2%), more than two-thirds were within 18-25 age group and were college graduates, 66.3% were single, 31.1% married, 2.1% divorced, while 0.5% were widows. Depression was found in 38% of participants, 21.6% minor depression, 12.3% moderate depression, and 4.1% severe depression. Table 1. Table 2, depicted a comparison between depression and sex in which depression was commoner among females (64.5% vs. 35.5% for mild depression, 60.9% vs. 39.1% for moderate depression, and 65.2% vs. 34.8% for severe depression) with a significant statistical difference, P-value=0.027).

In the present study, minor depression was observed in 24.8% of single participants, while moderate, and severe depression were reported in 14%, and 4.1% of this category respectively. Regarding the married participant's mild depression was found in 15.5%, moderate depression was evident in 8.6%, while severe depression was reported in 4%. Table 3 depicted a relationship between depression and marital status.

In the current data, minor and moderate depression were higher among the age group 18-24 years 23.7%, and 23.3% respectively with no significant statistical difference, P-value=0.568, while severe depression was higher among the age group 30-39 with no significant statistical difference. Table 4, illustrated the relationship of depression to different age groups.

Table 1. Patient's characteristics

Character	No%
Gender	
Male	217 (38.8%)
Female	343 (61.2%)
Age	
18 - 24	358 (63.9%)
25 - 29	75 (13.4%)
30 - 39	76 (13.6)
40 - 60	49 (8.7%)
More than 60	2 (0.4%)
Education	
Illiterate	2 (0.4%)
Primary	12 (2.1%)
Intermediate school	18 (3.2%)
High Secondary	140 (25%)
school	375 (67%)
College graduates	13 (2.3%)
Postgraduate education	
Marital status	371 (66.3%)
Single	174 (31.1%)
Married	12 (2.1%)
Divorce	3 (0.5%)
Widow	
Depression severity	217 (38.8%)
Minimal symptoms	121 (21.6%)
Minor depression	69 (12.3%)
Moderate	23 (4.1%)
Severe	

Table 2. The relationship of depression to sex

Character	Males	Females	P-value
Minimal symptoms	73 (33.6%)	144 (66.4%)	0.027
Minor depression	43 (355%).	78 (64.5%)	
Moderate depression	27 (39.1%)	42 (60.9%)	
Severe depression	8 (34.8%)	15 (65.2%)	

Table 3. The relationship of depression to marital status

Character	Minimal symptoms	Minor depression	Moderate depression	Severe depression	P-value
Single (n=292)	132 (35.6%)	92 (24.8%)	52 (14.0%)	16 (4.3%)	0.186
Married (n=126)	77 (44.3%)	27 (15.5%)	15 (8.6%)	7 (4.0%)	
Divorce (n=10)	7 (58.3%)	2 (16.7%)	1 (8.3%)	0 (0.0%)	
Widow (n=2)	1 (33.3%)	0 (0.0%)	1 (33.3%)	0 (0.0%)	

Table 4. The relationship of depression to age

Age	minimal symptoms	minor depression	Moderate depression-	Severe depression	P-value
18 - 24	132 (36.9%)	85 (23.7%)	50(14.0%)	12 (3.4%)	0.568
25 - 29	30 (40.0%)	16 (21.3%)	10 (13.3%)	4 (5.3%)	
30 - 39	31 (40.8%)	14 (18.4%)	7 (9.2%)	5 (6.6%)	
40 - 60	23 (46.9%)	6 (12.2%)	2 (4.1%)	2 (4.1%)	
More than 60	1 (50%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	

DISCUSSION

Mental health disorders are increasing at an alarming rate due to burdening economic challenges and change in the social fabric[11].

In the present study, 38% of participants were depressed, the current findings were higher than a recent study conducted in Saudi Arabia[12] among hospitalized patients and concluded depressive disorders in 27.5%. Another study[13] used the PHQ-9 questionnaire and reported a prevalence of 25.7% among inpatients and was lower than the current findings. The present data were higher than a study conducted among Asian population[14] and reported a prevalence of 9%. A previous population-based study performed in the United States of America[15] concluded depression in 49.7% and was higher than the current research. Our findings are in accordance with previous literature, which suggests a range of depression from 20-40% among patients presenting to the primary healthcare facilities[16]. However, the situation is alarming in Tabuk as nearly two out of five people was depressed with serious consequences. In the current study, depression was commoner among females with a significant statistical difference. In line with the present data is a population-based study[17] (Sesto Fiorentino Study) which reported a higher rate of depression among females. A study conducted by **Forlani *et al.***[18] found no gender difference in depression in contradiction to the present data. The discrepancies regarding the association of depression and gender were attributed to family and work role which were not explored in the current study. In the current data, mild depression was the commonest followed by moderate and severe depression, which is in accordance with **Folani *et al.*** who conducted a population-based study and found similar results. Previous literature[19] showed an increasing rate of depression as the age-progressed with those 60 years or above having the highest rate, the current data showed no differences in depression among different age group, a plausible explanation is that the current sample was younger than 60 years.

A recent study published in Lahore[16] found that marital status was significantly associated with depression and in contradiction to the present finding in which no significant differences were observed between single, married, widowed, and divorced regarding depression. A recent study published in Japan[20] found a lower rate of depression among married people. The social

support and culture could be a plausible explanation for the association of depression and marital status[21]. Culturally tailored preventive programs to reduce depression could be important.

CONCLUSION

More than one-third of patients visiting the primary healthcare centers were depressed with females more affected, no differences in severity of depression were found regarding age and marital status. An interventional strategy for the prevention of this serious mental health disorder is highly recommended.

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