



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.2557672>Available online at: <http://www.iajps.com>

Research Article

**DEPRESSION AMONG ADULT IN HAIL CITY,
SAUDI ARABIA 2019**

¹Kholud Kanfor Alrashidi, ²Ashwaq Mohammad Alrashidi, ³Ashwaq Aiyad Alshammari, ⁴Mona Mutlaq Alshammari, ⁵Tahreer Mutlaq Alshammari, ⁶Maha Abdullah Alharbi, ⁷Simat Mohammad Alsinan.

¹Family Medicine Resident, Saudi Board Family Medicine. AlQassim, e mail: K.k2014@hotmail.com ²General Practitioner, Primary Healthcare. Hail, ³Medical Resident of Family Medicine, General Practitioner, Primary Healthcare. Hail, ⁴General Practitioner, Primary Healthcare. Hail, ⁵General Practitioner, Primary Healthcare. Hail, ⁶Medical Intern, Imam Abdulrahman Bin Faisal University, ⁷Medical Intern, Ibn Sina College.

Abstract:

Most people experience feelings of anxiety or depression at times. Grief, loss of a job, divorce, illness, and other stressors can lead to feelings of sadness, worry, frustration, and loneliness. These are normal reactions to difficult life situations. Some people experience these feelings daily, without a known stressor. This can interfere with the ability to carry out every day activities such as getting to work on time, proper self-care, or caring for children. In this case, people might be suffering from depression, anxiety, or a combination of the two. This descriptive cross sectional study was conducted at Hail city of Saudi Arabia to measure prevalence of depression and anxiety among adults, data was collected by using standardized of PHQ-9 questionnaire and collected data was analyzed by using SPSS ver. 23. About 323 adults of age 20 up to 60 years old were participated in this study, This study found that majority of participants were female (76%) and about 93% of participants within the age group from 20 to 50 years old. It revealed that the prevalence of anxiety among participants was 62%, where 42% had mild symptoms, 12% had moderate symptoms while 7% had severe symptoms while the prevalence of depression symptoms among participants was 67 %, where 38% had minimal symptoms, 20% had minor symptoms, 5% had moderately severe symptoms and 5% had had severe symptoms. Finally this study indicated that there were statistically significant different between gender and depression symptoms, p value < 0.05.

Keywords: Depression, anxiety, PHQ-9, Hail city, Saudi Arabia.

Corresponding author:**Kholud Kanfor Alrashidi,**

Family Medicine Resident, e mail: K.k2014@hotmail.com

QR code



Please cite this article in press Kholud Kanfor Alrashidi et al., **Depression among Adult In Hail City, Saudi Arabia 2019.**, Indo Am. J. P. Sci, 2019; 06(01).

INTRODUCTION:

Depression is a common mental health disorder, affecting more than 350 million people of all ages worldwide, according to the World Health Organization (WHO). In 2001, the WHO identified depression as the fourth leading cause of disability and premature death in the world. It is projected to become the leading cause of burden of disease by 2030. By the year 2020 depression would be the second major cause of disability adjusted life years lost, as reported by the World Health Organization. Depression is a mental illness which causes persistent low mood, a sense of despair, and has multiple risk factors. Its prevalence in primary care varies between 15.3-22%, with global prevalence up to 13% and between 17-46% in Saudi Arabia. Despite several studies that have shown benefit of early diagnosis and cost-savings of up to 80%, physicians in primary care setting continue to miss out on 30-50% of depressed patients in their practices. Addressing the growing unmet need for developing better understanding of psychiatric diseases including major depressive disorder (MDD) in Saudi Arabia. A recent study published in the Journal of Clinical Psychiatry highlighted the large gap in the Middle East region between the number of people needing and actually receiving treatment for depression. Furthermore, the World Health Organization notes more than 75 percent of people with depression in developing countries are inadequately treated, with mental health one of the most neglected, yet essential, development issues in achieving the United Nations' Millennium Development Goals one and five. Demonstrating the local burden, in Saudi Arabia, more than 201,000 disability-adjusted life years (DALYs) are lost from depression in a year. DALYs is a measure of overall disease burden, expressed as the number of years of potential life lost due to premature death and the years of productive life lost due to disability.

METHODS AND MATERIALS:

This cross-sectional study was conducted at Hail city, Saudi Arabia. About 323 adults of age 20–65 years were selected randomly. Data were collected using PHQ-2 and PHQ-9 Arabic version validated questionnaires for anxiety and depression screening [42]. Other relevant demographic and personal data were also collected including age, gender, profession, social class and marital status, self-administered questionnaire were distributed online for the purpose of data collection, collected data were analyzed by using SPSS ver. 23

The PHQ-2 and PHQ-9 (Table 1) were analyzed in terms of calculating the severity scores for each question, for presence of anxiety and depression symptoms over the last 2 weeks. The score of severity of depression varied between (0 = not present at all), (1 = present in several days), (2 = present more than half the days) and (3 = present nearly every day). The severity score of PHQ-2 was calculated and ranged between 0–6 points. Also, the severity score of PHQ-9 ranged between 0–27 points. The scores for PHQ-9 were used to determine the presence of depression and its severity depend on the following score ranges: 1–4 minimal depression, 5–9 mild, 10–14 moderate, 15–19 moderate to severe, and 20–27 severe [43]. For statistical analysis in our study, a person with minimal score (1–4) on PHQ-9, was not considered has 'depressed', and those with score ≥ 10 (moderate - severe) were categorized needing medical treatment for cost-analysis. For PHQ-2, presence or absence of depression was based on a score of 3 and above out of 6 on the screening instrument [44]. Tables (1, 2, 3 and 4).

Table 1: shows the Patient health questionnaire. The Generalized Anxiety Disorder 7-Item Scale

For last 2 weeks how often have you been bothered by any of the following problems?	Nearly everyday	More than half days	Several days	Not at all
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

Table 2: Interpreting the Score:

PHQ-7	Points
No syndrome	0-4
Mild Anxiety	5-9
Moderate anxiety	10 -14
Severe anxiety	> 15

Table 3: shows Patient health questionnaire PHQ 2* & 9: screening instrument for depression

For last 2 weeks how often have you been bothered by any of the following problems?	Nearly everyday	More than half days	Several days	Not at all
8. Loss of interest	0	1	2	3
9. Feeling depressed	0	1	2	3
10. Trouble sleeping.	0	1	2	3
11. Feeling tired.	0	1	2	3
12. Poor appetite or eating.	0	1	2	3
13. Loss of self-esteem.	0	1	2	3
14. Low level of concentration.	0	1	2	3
15. Low voice or edgy.	0	1	2	3
16. Suicidal ideation.	0	1	2	3

Table 4: shows the Patient health questionnaire PHQ 2 depression level

PHQ-9	Points
No syndrome	0-4
Minimal syndrome	5-9
Major depression / mild	10 -14
Major depression / moderate	15 - 19
Major depression / severe	> 20

The data was analyzed for all questions estimating frequencies, percentages, means and standard deviations, where applicable. The PHQ-9 scores were used along with various demographic variables, for comparisons, using statistical tests including Chi-square and t test.

RESULTS:**Table 5: Demographic and basic information**

N = 323			
Variable	Sub Variable	Fr.	%
Gender	male	78	24.1
	female	245	75.9
Age Group in years	< 20	18	5.6
	20-30	101	31.3
	30-40	162	50.2
	40-50	39	12.1
	50-60	3	.9
Employment	student	54	16.7
	employee	174	53.9
	Work Owner	6	1.9
	unemployment	33	10.2
	house hold	56	17.3
Residence area	village	248	76.8
	city	75	23.2
Marital Status	single	90	27.9
	married	215	66.6
	divorced	12	3.7
	widow	6	1.9
Family Monthly Income	low	9	2.8
	middle	308	95.4
	high	6	1.9

Majority of participants were female (76%), about 93% of participants within the age group from 20 to 50 years old, near to half of participants (53%) were workers and most of participants were within middle monthly income (95%).

Table 6: Prevalence and classification of Anxiety

N = 323		
Variable	Fr.	%
normal	123	38.1
mild	137	42.4
moderate	39	12.1
severe	24	7.4

The prevalence of anxiety among participants was 62%, where 42% had mild symptoms, 12% had moderate symptoms while 7% had severe symptoms.

Table 7: Prevalence and classification of Depression

N = 323		
Variable	Fr.	%
normal	108	33.4
minimal symptoms	122	37.8
minor	63	19.5
moderately severe	15	4.6
severe	15	4.6

The prevalence of depression symptoms among participants was 67 %, where 38% had minimal symptoms, 20% had minor symptoms, 5% had moderately severe symptoms and 5% had had severe symptoms.

Table 8: Independent t - test between gender, anxiety and depression

	gender	N	Mean	Std. Deviation	P Value
Anxiety score	male	78	7.07	4.75	0.014
	female	245	7.64	4.05	
Depression score	male	78	8.15	6.12	0.008
	female	245	9.15	5.36	

- There were statistically significant different between gender and anxiety symptoms, p value < 0.05
- There were statistically significant different between gender and depression symptoms, p value < 0.05

DISCUSSION:

Majority of participants were female (76%), about 93% of participants within the age group from 20 to 50 years old, near to half of participants (53%) were workers and most of participants were within middle monthly income (95%).

Our study indicated that the prevalence of anxiety among participants was 62%, where 42% had mild symptoms, 12% had moderate symptoms while 7% had severe symptoms. It also showed that the prevalence of depression symptoms among participants was 67 %, where 38% had minimal symptoms, 20% had minor symptoms, 5% had moderately severe symptoms and 5% had had severe symptoms.

This finding is greater to that reported by Al Ibrahim et al., in their systematic review in 2010 [19] and another study conducted in 2007 [39]. while another study conducted for adults found that the prevalence was 49.9%, of which 31% were mild, 13.4% moderate, 4.4% moderate-severe and 1.0% severe cases [40].

Our findings provide no gender differences in the prevalence and presentation of depressive symptoms, where this finding is opposite to another study which found difference regarding to gender

Our study also found that there were a significant relationship between depression, anxiety and gender, similar findings was reported in many studies either local [(Moataz M et al 2007[18, 20, 22, 23] or international [4, 11, 52].

In Saudi Arabia, prevalence has been estimated in several studies, with rates varying in different

populations, age groups, times, and geographic locations. Psychiatric morbidity in primary care was estimated in 1995 around 30-46% of the visiting patients [17]. In 2002, depression and anxiety disorders were noted around 18% among adults in central Saudi Arabia [18]. Al Ibrahim et al., in 2010 showed an overall prevalence of 41% in a systematic review on depression [19]. El Rufaie et al., noted a 17% prevalence of depression among residents of Dammam [20]. Al Qahtani et al., in Asir reported a 27% prevalence of depression in the year 2008 [21]. Abdul Wahid et al. in 2011, reported an overall prevalence of depression nearing 12%, with 6% as severe cases, in the south-eastern region [22]. In Riyadh Becker et al., found depression prevalence to be 20% in primary care settings [23, 24].

REFERENCES:

1. BetterMedicine. Depression. BetterMedicine. 2012, Available from: <http://www.bettermedicine.com/topic/depression/>,
2. familydoctor.org.editorial-staff: Depression, Overview FamilyDoctor.org. 2011, [updated 01/2011]; Available from: <http://familydoctor.org/familydoctor/en/diseases-conditions/depression.html>,[Google Scholar](#)
3. Simon GE, VonKorff M, Piccinelli M, Fullerton C, Ormel J: An international study of the relation between somatic symptoms and depression. *N Engl J Med.* 1999, 341 (18): 1329-1335.[View ArticlePubMedGoogle Scholar](#)
4. DOUGLAS M, MAURER DM, Carl R: Screening for depression. *Am Fam Physician.* 2012, 85 (2): 139-144.[Google Scholar](#)
5. Pomerantz JM: Screening for Depression in Primary Care *Medscape News.* 2005, Available from: <http://www.medscape.com/viewarticle/511>

- 167,[Google Scholar](#)
6. Bethesda: Table 1: prevalence of depressive illness. Health Services/Technology Assessment Text. 2005, 3[Google Scholar](#)
 7. WHO: The World Health Report: 2001: Mental health: new understanding, new hope. Edited by: Haden A, Campanini B. 2001, Geneva: World Health Organization, 30-[Google Scholar](#)
 8. Narrow WE, Rae DS, Robins LN, Regier DA: Revised prevalence estimates of mental disorders in the United States: using a clinical significance criterion to reconcile 2 surveys' estimates. Arch Gen Psychiatry. 2002, 59 (2): 115-123.[View ArticlePubMedGoogle Scholar](#)
 9. Stewart WF, Ricci JA, Chee E, Hahn SR, Morganstein D: Cost of lost productive work time among US workers with depression. JAMA. 2003, 289 (23): 3135-3144.[View ArticlePubMedGoogle Scholar](#)
 10. Coyne JC, Fechner-Bates S, Schwenk TL: Prevalence, nature, and comorbidity of depressive disorders in primary care. Gen Hosp Psychiatry. 1994, 16 (4): 267-276.[View ArticlePubMedGoogle Scholar](#)
 11. Ayuso-Mateos JL, Vazquez-Barquero JL, Dowrick C, Lehtinen V, Dalgard OS, Casey P, Wilkinson C, Lasa L, Page H, Dunn G, Wilkinson G, ODIN Group: Depressive disorders in Europe: prevalence figures from the ODIN study. Br J Psychiatry. 2001, 179: 308-316.[View ArticlePubMedGoogle Scholar](#)
 12. Andersen I, Thielen K, Bech P, Nygaard E, Diderichsen F: Increasing prevalence of depression from 2000 to 2006. Scand J Public Health. 2011, 39 (8): 857-863.[View ArticlePubMedGoogle Scholar](#)
 13. Muhammad Gadit AA, Mugford G: Prevalence of depression among households in three capital cities of Pakistan: need to revise the mental health policy. PLoS One. 2007, 2 (2): e209-[View ArticlePubMedPubMedCentralGoogle Scholar](#)
 14. Mirza I, Jenkins R: Risk factors, prevalence, and treatment of anxiety and depressive disorders in Pakistan: systematic review. BMJ. 2004, 328 (7443): 794-[View ArticlePubMedPubMedCentralGoogle Scholar](#)
 15. Luni FK, Ansari B, Jawad A, Dawson A, Baig SM: Prevalence of depression and anxiety in a village in Sindh. J Ayub Med Coll Abbottabad. 2009, 21 (2): 68-72.[PubMedGoogle Scholar](#)
 16. Flamerzi S, Al-Emadi N, Kuwari MGA, Ghanim IM, Ahmad A: Prevalence and determinants of depression among primary health care attendees in Qatar 2008. World Family Medicine Journal. 2010, 8 (2): 3-7.[Google Scholar](#)
 17. Faris EA, Hamid AA: Hidden and conspicuous psychiatric morbidity in Saudi primary health care. Arab J Psychiatry. 1995, 6 (2): 162-175.[Google Scholar](#)
 18. Al-Khathami AD, Ogbeide DO: Prevalence of mental illness among Saudi adult primary-care patients in Central Saudi Arabia. Saudi Med J. 2002, 23 (6): 721-724.[PubMedGoogle Scholar](#)
 19. ALIBRAHIM O, AL-SADAT N, ELAWAD N: Gender and risk of depression in Saudi Arabia, a systematic review and meta-analysis. Journal of Public Health in Africa. 2010, 1 (1):[Google Scholar](#)
 20. El-Rufaie OE, Albar AA, Al-Dabal BK: Identifying anxiety and depressive disorders among primary care patients: a pilot study. ActaPsychiatr Scand. 1988, 77 (3): 280-282.[View ArticlePubMedGoogle Scholar](#)
 21. Alqahtani MM, Salmon P: Prevalence of somatization and minor psychiatric morbidity in primary healthcare in Saudi Arabia: a preliminary study in Asir region. J Family Community Med. 2008, 15 (1): 27-33.[PubMedPubMed CentralGoogle Scholar](#)
 22. Abdelwahid HA, Al-Shahrani SI: Screening of depression among patients in family medicine in Southeastern Saudi Arabia. Saudi Med J. 2011, 32 (9): 948-952.[PubMedGoogle Scholar](#)
 23. Becker S, Al Zaid K, Al FE: Screening for somatization and depression in Saudi Arabia: a validation study of the PHQ in primary care. Int J Psychiatry Med. 2002, 32 (3): 271-283.[View ArticlePubMedGoogle Scholar](#)
 24. Becker SM: Detection of somatization and depression in primary care in Saudi Arabia. Soc Psychiatry PsychiatrEpidemiol. 2004, 39 (12): 962-966.[View ArticlePubMedGoogle Scholar](#)
 25. Chisholm D, Sanderson K, Ayuso-Mateos JL, Saxena S: Reducing the global burden of depression Population-level analysis of intervention cost-effectiveness in 14 world regions. The British Journal of Psychiatry. 2004, 184 (5): 393-403.[View ArticlePubMedGoogle Scholar](#)
 26. Hidaka BH: Depression as a disease of modernity: explanations for increasing prevalence. J Affect Disord. 2012, 140 (3): 205-214.[View ArticlePubMedPubMedCentralGoogle Scholar](#)
 27. Simon GE, VonKorff M: Recognition, management, and outcomes of depression in primary care. Arch Fam Med. 1995, 4 (2): 99-105.[View ArticlePubMedGoogle Scholar](#)
 28. Mishler EG: The Discourse of Medicine: Dialectics of Medical Interviews. 1984, Westport, Connecticut: Greenwood Publishing Group, 211-[Google Scholar](#)

29. Eisenberg L: Treating depression and anxiety in the primary care setting. *Health Aff (Millwood)*. 1992, 11 (3): 149-156. [View ArticleGoogle Scholar](#)
30. Sturm R, Meredith LS, Wells KB: Provider choice and continuity for the treatment of depression. *Med Care*. 1996, 34 (7): 723-734. [View ArticlePubMedGoogle Scholar](#)
31. van den Berg M, Smit F, Vos T, van Baal PH: Cost-effectiveness of opportunistic screening and minimal contact psychotherapy to prevent depression in primary care patients. *PLoS One*. 2011, 6 (8): e22884. [View ArticlePubMedPubMedCentralGoogle Scholar](#)
32. Gilbody S, House AO, Sheldon TA: Screening and case finding instruments for depression. *Cochrane Database Syst Rev*. 2005, 4: CD002792. [Google Scholar](#)
33. U.S., Preventive, Services, Task, Force: Screening for depression in adults: recommendation statement. *AHRQ Publication No. 10-05143-EF-2*; December 2009 [cited July 12, 2011]; Available from: <http://www.uspreventiveservicestaskforce.org/uspstf09/adultdepression/addeprsr.htm>,
34. U.S., Preventive, Services, Task, Force: Screening and treatment for major depressive disorder in children and adolescents: recommendation statement. *AHRQ Publication No. 09-05130-EF-2*; March, 2009 [updated March, 2009 Accessed July 12, 2011]; Available from: <http://www.uspreventiveservicestaskforce.org/uspstf09/depression/chdeprsr.htm>,
35. Arroll B, Khin N, Kerse N: Screening for depression in primary care with two verbally asked questions: cross sectional study. *BMJ*. 2003, 327 (7424): 1144-1146. [View ArticlePubMedPubMedCentralGoogle Scholar](#)
36. Whooley MA, Avins AL, Miranda J, Browner WS: Case-finding instruments for depression. Two questions are as good as many. *J Gen Intern Med*. 1997, 12 (7): 439-445. [View ArticlePubMedPubMedCentralGoogle Scholar](#)
37. Spitzer RL, Williams JBW, Kroenke K: Validation and utility of a self-report version of PRIMEMD - the PHQ primary care study. *JAMA*. 1999, 282: 1737-1744. [View ArticlePubMedGoogle Scholar](#)
38. Nease DE, Maloin JM: Depression screening: a practical strategy. *J Fam Pract*. 2003, 52 (2): 118-124. [PubMedGoogle Scholar](#)
39. Prevalence, symptomatology, and risk factors for depression among high school students in Saudi Arabia, Moataz M. Abdel-Fattah, *Pub- Med* 2007.
40. Adult depression screening in Saudi primary care: prevalence, instrument and cost, Waleed Al-Qadhi Email author, Saeed ur Rahman, Mazen S Ferwana and Imad Addin Abdulmajeed, *BMC Psychiatry* 2014, <https://doi.org/10.1186/1471-244X-14-190>.