

Prevalence of mental disorders among patients attending primary health care centers in the capital of Saudi Arabia

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ABSTRACT

الأهداف: دراسة مدى انتشار الاضطرابات و المشاكل النفسية الشائعة بين زوّار مراكز الرعاية الصحية الأولية في المملكة العربية السعودية.

الطريقة: أجريت الدراسة في أحد مراكز الرعاية الصحية الأولية بمدينة الرياض عن طريق استبيان معتمد SRQ-20 لدراسة انتشار مثل هذه الاضطرابات و المشاكل.

النتائج: أوضحت الدراسة أن مانسبته 28.5% من مرضى مركز الرعاية الأولية يعانون من مشاكل و اضطرابات نفسية ، لكن هذا الانتشار لا يختلف اختلافاً احصائياً حسب الحالة الاجتماعية والديموغرافية للمرضى ($p>0.05$).

الخاتمة: بناءً على الانتشار الطفيف للمشاكل النفسية غير المعالجة، فإنه على صنّاع قرار الرعاية الصحية في المملكة العربية السعودية تنفيذ استراتيجيات فاعلة لوقف انتشار و تطور الاضطرابات النفسية غير المعالجة.

Objectives: To assess the prevalence of common mental disorders at primary health care (PHC) centers in Saudi Arabia using the Self-Reporting Questionnaire.

Methods: This was a cross-sectional study carried out at a single PHC center in Riyadh city, Kingdom of Saudi Arabia. A self-medication questionnaire was utilized to collect the data. The prevalence of mental disorders has assessed by the Self-Reporting Questionnaire that consists of 20 items with binary answers (Yes/No).

Results: This study reports that the prevalence of mental disorders among patients attended primary health care center was 28.5%. Moreover, prevalence did not significant differ by sociodemographic ($p>0.05$).

Conclusion: The prevalence of mental disorders was slight high. The rates of untreated mental disorders

necessitate the healthcare makers in Kingdom of Saudi Arabia to implement efficient strategies to halt the progression of untreated mental disorders.

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There is growing concern about the mental disorders among people around the world.¹ Due to its prevalence, depression and anxiety are considered major public health issues and is ranked as the fourth leading cause of the global diseases burden.² However, the World Health Organization (WHO) has estimated that the impact of mental disorders will become the second leading cause of disability among individuals.³⁻⁵ Previous studies have shown that mental disorders are very common in almost every part of the world, with a significant difference in their frequency.^{1,6} Mental disorders refer to health conditions that are characterized by alterations in thinking, mood, or behavior. Diagnoses of mental disorders, also known as neuropsychiatric disorders, are made when people become mentally ill with the presence of somatic symptoms, such as irritation, headache, fatigue, forgetfulness, decreased concentration, anxiety, and mental retardation.^{7,8} It has been documented that in the USA, mental disorders are the third-most common cause of hospitalization of both young people and adults aged between 18 and 44 years.

These include major depression, dysthymic disorders, and bipolar disorders.⁹ Approximately 1 in 5 adults in the USA, which can be expressed as 43.8 million or 18.5% of the individuals, suffer from mental disorders that cost about 193.2 billion dollars.¹⁰ Previously published studies have reported that 450 million people in the world suffer from some form of mental disorders.¹¹ In the UK and the USA, about one-fourth and almost half of the populations, respectively, have a mental illness at some point during their life.¹² In contrast to any other chronic illness, mental disorders are the highest reported illness.¹¹ In Saudi Arabia, the prevalence rate of psychiatric disorders at primary health care (PHC) institutions is estimated to be 30-46%¹³ with the prevalence of depression of 20%.¹⁴ Chronic illness such as diabetes and hypertension increase the rate of the occurrence of mental disorders.^{15,16} Depression and anxiety are considered serious disorders that have a negative effect on the quality of life, medical comorbidity, and mortality.^{11,17-19} Despite the availability of some studies, most of these studies used specific screening tool for a particular disorder as the Beck Depression Inventory-Short Form (BDI-SF) for depression or the Rahim Anxiety-Depression Scale for anxiety/depression. The evaluation of common mental and psychiatric disorders at PHC centers using more generalized tools or techniques needs further research. In addition, the integration of mental health practices at PHC centers is one of the challenges faced by them, and investigating various psychiatric disorders using generalized assessment tools such as the Self-Reporting Questionnaire would help provide the real picture of mental disorder burden at PHC centers in Saudi Arabia. The objective of this study was to assess the prevalence of common mental disorders at PHC centers in Saudi Arabia using the Self-Reporting Questionnaire.

Methods. Participants. A survey study was carried out at a center of PHC for a period of three months from June to August 2017. Participants were enrolled by convenience sampling. The convenience sampling was utilized due to the difficulty of getting a list of all patients who will visit the PHC during the study period. Therefore, any adult patient aged 18 years or older who attended the Security Forces PHC clinic at

Western Riyadh during the study period, agreed to be interviewed, and was able to interact effectively with interviewers was included in our study. Any patient who is poor historian or refused to participate was excluded. Approximately 600 patients visited a primary care clinic during the study period. Around 250 subjects who are over 18 years old were approached for the interview, and 210 subjects agreed to be interviewed (approximately 84%). During the interview, 15 subjects either refused to complete the interview or refused to answer some questions; and thus excluded from the study. In addition, 2 more subjects were excluded from the study because they were poor historian patients.

Questionnaire tool. Data were collected by a questionnaire which was developed to explore some sociodemographic factors including gender, age, educational level, income, and employment status or occupation. Following this, the Self-Reporting Questionnaire-20 (SRQ-20) was used to investigate the presence of mental disorders. The SRQ-20 was initially developed by a team of psychiatrists, public health workers, and others coordinated by WHO to investigate the prevalence of mental illness in developed countries and areas that lack mental healthcare services. The aim of developing SRQ-20 was to find a cost-effective tool for mental illness screening. Subsequent studies from different regions translated and validated SRQ-20 in different languages for mental illness screening.²⁰⁻²² It is composed of 20 items with binary answers (Yes/No) that underlie in one of 4 domains; decreased energy (such as being tired), somatic symptoms (such as headache or stomach upset), depressive mood (such as being nervous or worried), and depressive thoughts (such as feeling worthless person). Each positive answer is scored as 1 and a negative answer is scored as 0. The total scores indicated the probability of the prevalence of mental disorder, and it ranged from 0 (no probability) to 20 (high probability). The original SRQ test has been validated, and the Cronbach's alpha was 0.86 and the cutoff point was ≥ 7 .²³ The SRQ test was translated into Arabic language using standard forward and backward translation procedure. After translation, the reliability was tested, and Cronbach's Alpha was 0.73.

Data analysis. Descriptive statistics were used to determine the frequencies, percentages, and means. The chi-square test was used to compare low probability and high probability of mental disorder based on sociodemographic factors including gender, age group, marital status, educational level, and financial status.

Results. A total of 193 participants were interviewed and enrolled in this study. Most of the participants

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Table 1 - Demographic data of participants (n=193).

Characteristics	n	(%)
<i>Gender</i>		
Male	117	(60.6)
Female	76	(39.4)
<i>*Material status</i>		
Single	82	(42.5)
Married	92	(47.7)
Divorced	18	(9.3)
<i>*Age group</i>		
15-35	49	(25.4)
36-55	89	(46.1)
56-75	42	(21.8)
More than 75	2	(1.0)
<i>*Occupation</i>		
Employed	102	(52.8)
Unemployed	73	(37.8)
<i>*Education level</i>		
University	79	(40.9)
High school	86	(44.6)
Below high school	18	(9.3)
None	6	(3.1)
<i>*Insurance status</i>		
None	37	(19.2)
Governmental	127	(65.8)
Private	28	(14.5)
<i>*Income</i>		
Comfortable	41	(21.2)
Manageable	119	(61.7)
Difficult	28	(14.5)
*Percentages do not add up to total (100%) because of missing data		

were males (60.6%). The age of about 46% of the participants ranged from 36 to 55 years. Approximately 48% of the participants were married. Almost half of the participants were employed, and about 44% of the participants had high school level education. For more details on the sociodemographic characteristics of the participants (Table 1).

Table 2 summarizes the frequencies of the symptoms of mental disorders assessed by the SRQ-20. The most prevalent symptoms were headache (66.8%), followed by poor sleep (39.4%), discomfort in the stomach (39.4%), fatigue (33.7%), feeling of nervousness (34.2%), and daily work burden (30.6%). In addition, about 29% of the participants contemplated suicide, while 26.9% were easily frightened, and 22.3% of the participants did not enjoy daily activities. More affirmative symptoms of mental disorders are listed in Table 2.

Table 2 - Frequency of positive and negative answers of participants (n=193).

Items	n (%)	
	Yes	No
Do you have often headache?	64 (33.2)	129 (66.8)
Is your appetite poor?	63 (32.6)	130 (67.4)
Do you sleep badly?	76 (39.4)	117 (60.6)
Are you easily frightened?	52 (26.9)	141 (73.1)
Do you hand shake?	31 (16.1)	162 (83.9)
Do you feel nervous, tense or worried?	66 (34.2)	127 (65.8)
Is your digestion poor?	56 (29)	137 (71)
Do you have trouble thinking clearly?	43 (22.3)	150 (77.7)
Do you feel unhappy?	32 (16.6)	161 (83.4)
Do you cry more than usual?	41 (21.2)	152 (78.8)
Do you find it difficult to enjoy daily activities?	43 (22.3)	150 (77.7)
Do you find it difficult to make decisions?	52 (26.9)	141 (73.1)
Is your daily work suffering?	59 (30.6)	134 (69.4)
Are you unable to play a useful role in life?	39 (20.2)	154 (79.8)
Have you lost interest in things?	37 (19.2)	156 (80.8)
Do you feel that you are a worthless person?	37 (19.2)	156 (80.8)
Has the thought of ending your life been on your mind?	55 (28.5)	138 (71.5)
Do you feel tired all the time?	56 (29)	137 (71)
Are you easily tired?	65 (33.7)	128 (66.3)
Do you have uncomfortable feelings in your stomach?	76 (39.4)	117 (60.6)

It was found that 28.5% of the participants had mental disorders. Additionally, the results of this study revealed that there were no significant associations between mental disorders and sociodemographic characteristics ($p>0.05$) as shown in Table 3.

Discussion. Approximately 28.5% of our participants were seen to have mental disorders. This is very comparable to 2 local studies which found that the prevalence of mental disorders such as depression, anxiety, somatization, or panic disorders among 431 outpatients (using Patient Health Questionnaire, PHQ) and the prevalence of minor mental illness among 609 outpatients (using The Rahim Anxiety-Depression Scale) in primary care settings were 33.4% and 30.5%, respectively.^{14,24} These rates seem to be lower than older studies conducted by Al-Fares et al^{13,25} in 1992 and 1995 which reported the incidence of mental disorders to be 46% and 39%, respectively. The relative decline in identifying undiagnosed or untreated mental disorders resulted from the awareness of healthcare authorities in Saudi Arabia regarding these conditions by adapting the WHO recommendations for managing and referring patients with mental illness.²⁶ In 2001, the WHO established a global project known as "Mental Health

Table 3 - Prevalence of mental disorders according to sociodemographic variables.*

Variables	Mental disorder			P-value
	Yes n (%)	No n (%)		
Gender				
Male	83 (70.9)	34 (29.1)		0.87
Female	55 (72.4)	21 (27.6)		
Material status				
Single	62 (75.6)	20 (27.4)		0.56
Married	63 (68.6)	29 (31.5)		
Divorced	12 (66.7)	6 (33.3)		
Age group				
15-35	37 (75.5)	12 (23.5)		0.77
36-55	63 (70.8)	26 (29.2)		
56-75	29 (69.0)	13 (31.0)		
More than 75	2 (100)			
Occupation				
Employed	68 (66.7)	34 (33.3)		0.18
Unemployed	57 (76.0)	18 (24)		
Education level				
University	58 (73.4)	21 (26.6)		0.6
High school	61 (70.9)	25 (29.1)		
Below high school	14 (77.8)	4 (22.2)		
None	3 (50.0)	3 (50.0)		
Insurance status				
None	23 (62.2)	14 (37.8)		0.13
Governmental	97 (76.7)	30 (23.6)		
Private	17 (60.7)	11 (39.3)		
Income				
Comfortable	30 (73.2)	12 (28.6)		0.19
Manageable	81 (68.1)	38 (31.9)		
Difficult	24 (58.7)	4 (14.3)		

*The table was calculated based on the available collected data

Atlas” that assists health planners to improve or identify areas for the best health of mental illness.²⁷ According to the 2014 Mental health Atlas country profile of Saudi Arabia, some basic information was missing, which was likely due to the absence of country-wide surveillance.²⁸

Although regional studies were conducted at a primary care setting or a region and used different assessment methods, these studies estimated that almost 28.5-46% of our population had untreated mental disorders, and females comprised the vast majority of untreated participants.^{17,18,24,25} Some literature suggests that Arab or Saudi population may avoid seeking psychiatric treatment either because of their supernatural interpretation of mental illness as due to “jinn,” “evil eye,” or “magic/seher,” or because of the stigma associated with reporting embarrassing problems particularly from men to a psychiatrist.²⁹ However,

these claims have diminished recently due to observable education of mental illness through TV or the Internet. Thus, the society, in general, is becoming more aware of such illnesses.

In order to raise awareness in the society and develop a country-wide plan to reduce the progression of mental disorders, healthcare planners in Saudi Arabia have begun to take essential steps effectively. In 2007, the Saudi Arabian Mental and Social Health Atlas (SAMSHA) was developed which aimed to develop, improve, and expand mental health services through conducting research studies, carrying out continuous educational sessions, building modern centers, and graduating specialty providers.³⁰ Further, in 2010, a national project named “The Saudi National Mental Health Survey (SNMHS)” was established aiming to determine the prevalence, risk factors, comorbidities, treatment services, and outcomes of mental disorders in Saudi Arabia.³¹

Our study used self-reported measures which may increase the likelihood of response bias. Furthermore, the participants were recruited in the study without any clear inclusion or exclusion criteria, and the study was conducted at a single center. Although our study was conducted at a regional primary care center similar to other published local studies, it used a different assessment tool, the SRQ-20. The SRQ-20 is neither a specific screening tool for a particular disorder as the Beck Depression Inventory-Short Form (BDI-SF) for depression or the Rahim Anxiety-Depression Scale for anxiety/depression nor is an indicator of illness severity as the PHQ.³²⁻³³ The SRQ-20 is composed of 20 items with yes or no answer choice. The generality and simplicity of the SRQ-20 make it a preferable tool to be used in a primary care setting. Although our study used different assessment tools, the results are consistent with those of other studies. A study was carried out in Qatar among adult patients who attending primary health care center to assess the presence of common mental disorders (n=1660). This study was used different tool compared to our study. However it found the overall incidence of mental disorders was 36.6%.¹¹ A similar study was carried out in Brazil to assess the incidence of common mental disorder and its associated factors in primary health care. It found slight higher than our finding, (31.47%).²³ Another study was carried out in Ethiopia used same tool. The result of this study revealed that the prevalence of common mental disorders was 32.4%.³⁴ The prevalence rate of untreated mental disorders necessitates the need for healthcare policy makers in Saudi Arabia to accelerate the implementation of their plans.

This study suggests the prevalence of general mental disorders was slightly high with no significant association between mental disorders and other sociodemographic variables. However, these findings which suggest untreated mental disorders seem consistent with other local published studies that used different tools. Therefore, the local healthcare policy makers should implement effective strategies to stop the progression of untreated mental disorders.

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