

Treatment and Prevalence of Generalized Anxiety Disorder and Depression among Primary Care Attendees

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Objective: The aim of the study was to evaluate the prevalence of generalized anxiety disorder and depression and their treatment in a cross national sample of primary care patients.

Setting: Four primary health care facilities in four Governorates, in the Kingdom of Bahrain.

Design: Clinical Survey.

Method: Four primary health care facilities in four Governorates participated in one stage screening process to identify prevalence of generalized anxiety disorder and depression. Structured diagnostic interviews among 300 consecutive attendees in one day was used. The Mini International Neuro psychiatric Investigation (MINI) was used as screening tool. The association of depression and anxiety with factors such as age, sex, education and employment were evaluated.

Result: Generalized anxiety disorders prevalence rate was 52 (17.3), life time depression was 58 (19.3%) and current depression was 17 (5.6%). Only 22 (7.3%) of the sample had either anxiety or depression in the past, of whom 41% received treatment. None of the examined factors was significantly linked to anxiety or depression.

Conclusion: This study shows that generalized anxiety disorder and major depressive episode are very common among primary care attendees. Thus, primary care physicians should be alerted of this fact.

A multifaceted program should be adopted for the detection and management of GAD and depression.

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Published data reveals under-recognition and inadequate treatment of Generalized Anxiety Disorder (GAD) and depression in primary care^{1,2}. In spite of the fact that these disorders are largely found among primary health care (PHC) attendees; anxious and depressed patients do not receive adequate attention and management^{3,6}.

Data of the prevalence and treatment of GAD and depression in PHC in the developing countries are scarce. The WHO-15 sites collaborative study of the prevalence of psychological problems had revealed that nearly one third of those diagnosed as depressed received antidepressant medication⁷. This finding was similar to the published by Simon (2004) where only a quarter of PHC patients with depression received adequate acute-phase treatment⁸. The Longitudinal Investigation of Expression Outcomes study (LIDO) had reported a prevalence of 4-23% for current depression in six diverse primary care centers⁹.

In Bahrain, few attempts were performed to address this subject. Depression among the elderly primary care population was examined and found to be high. A higher prevalence of depressive symptoms (41%) among the elderly PHC attendees was reported by Habeeb compared to Al Haddad (23%)^{10,11}. However, GAD was never investigated as a separate disorder in the primary care setting.

This is the first study that addresses the prevalence of depression and GAD in the adult population of Bahrain and their treatment needs. We are not aware of any published national figures of depression and GAD among PHC attendees from the region.

METHOD

Bahrain is divided into five governorates Muharraq, Capital, Central, Northern and Southern. The southern governorate was excluded from the study as the Primary Health Care Centers (PHCCs) are different from those in other areas. One PHCC was randomly selected from the first four governorates. These PHCCs were: National Bank of Bahrain (NBB) (Muharraq), Sheikh Sabah (Capital), Aali (Central) and Hamad Town (Northern). Three family physicians were randomly selected by the chief of medical services from each participating PHCC to interview 25 consecutive attendees in one working day during between 24-28th June, 2006. The sample was 300 patients, 75 from each PHCCs. All Bahraini subjects who attended the PHCCs on that day and whose age ranged between 18-65 years were included in the study. Attendees whose physical or mental status did not permit interviewing were excluded.

Instrument Measurement

The Mini International Neuropsychiatry Interview (MINI) was used in this study to identify patients who had or have GAD or Major Depressive Episode (MDE). The choice of MINI as an instrument was based on its high levels of reliability and validity, which have been reported in several studies¹². The MINI is a structured interview tool, designed to evaluate the presence of psychiatric disorders according to Axis I, of the DSM IV and ICD-10. MINI is divided into modules which represent diagnostic categories. Each module begins with screening questions corresponding to the main criteria of the disorders and ending with diagnostic boxes to indicate whether the diagnostic criteria are met or not. The administration time for MINI is usually around 16 minutes.

Procedures

The MINI was translated into Arabic and translated back to English, the authors for clarity and accuracy performed a pilot study. Twelve interviewers, all family physicians, attended two workshops prior to data collection. The aims of the workshops were to orient the interviewers regarding the objectives and procedures of the study, familiarize them with diagnostic criteria of GAD and MDE, DSM-IV and ICD-10 and to practice the use of MINI in simulated interview situation. Interrator reliability was not required as MINI is a diagnostic tool based on DSM-IV and ICD-10. Each physician interviewed 25 consecutive PHCC attendees in a day using MINI. A verbal informed consent was obtained from all participants. The process was supervised by two team members, psychiatrist and psychologist, who were available to answer any questions. Filled forms were manually checked for completeness. The data were entered and analyzed using SPSS version 15. Chi-square test was used to evaluate the significance of differences as applicable.

RESULT

Table 1 shows the characteristics of the total sample, attendees with GAD and MDE. The mean age for the total sample was 38.5 and 34.5 years for both GAD and MDE, respectively. The number of females found to have GAD and MDE slightly exceeded males. Half of the sample population received high school education and a quarter had college education. Two-third of the MDE received high school education and only one fifth college education. In GAD population, more than half 28 (54%) completed high school education and about one third 16 (31%) college education. However, the differences were not statistical significant. GAD 33 (63.5%), MDE 34 (58.6%) were employed, GAD 4 (7.7%), MDE 4 (6.9%), were unemployed and home makers (19.2-25.9%) were almost similar among GAD and MDE population. Employment/unemployment status was not statistically significant.

Table 2 shows the percentage of GAD and MDE according to health centre and type of disorder. One hundred and ten (36.6%) achieved enough score to be diagnosed as either GAD 52 (17.3%) or MDE 58 (19.3%). Twenty-two (7.3%) of the 110 were previously diagnosed cases with equal representation among GAD and MDE. The prevalence of MDE current type was (5.6%). Nine (41%) of the known cases of GAD and MDE did not receive any treatment in the past. Seven cases of MDE and five cases of GAD were due to physical illness and only one MDE case was related to drug use.

Table 1: Personal Characteristic of the Sample

	GAD		MDE		Total	Sample
	N	%	N	%	N	%
Gender*						
Male	22	42.3	24	41.4	130	43.0
Female	30	57.7	34	58.6	170	57.0
Total	52		58		300	100
Educational level*						
Illiterate	1	1.9	1	1.7	12	4.0
Read & Write	2	3.8	0.0	0.0	12	4.0
1-6 grade	5	9.6	8	13.8	37	12.3
6-12 grade	28	53.9	37	63.8	157	52.4
≥ 13 grade	16	30.8	12	20.7	82	27.3
	52	100	58	100	300	100

Employment *						
Employed	33	63.5	34	58.6	159	53.0
Homemaker	10	19.2	15	25.9	91	30.3
Student	5	9.6	3	5.2	18	6.0
Retired	0	0.0	2	3.4	19	6.3
Unemployed	4	7.7	4	6.9	13	4.3
Mean Age	34.5	100	34.5	100	38.5	99.9

* *p- Value* > = NS

Table 2: Prevalence of GAD and MDE according to Health Centre and Type of Disorder

Health Centre	Diagnostic Type	GAD		MDE	
		N	%	N	%
Sheikh. Sabah	All	21	40.4	14	24.1
	Due to physical illness	1	1.5	4	6.9
Aali	All	3	5.8	8	13.8
	Due to physical illness	0.0	0.0	0.0	0.0
NBB	All	14	26.9	18	31
	Due to physical illness	1	1.0	2	3.4
Hamad Town	All	14	26.9	18	31
	Due to physical illness	3	5.8	1	1.7
Total		52	100	58	99.9

DISCUSSION

Depression and anxiety disorders are frequently encountered among primary care attendees in Bahrain, but the majority of cases are unrecognized. Hence, physicians working in primary care should be aware of these disorders in their daily clinical practice. Similar high prevalence figures of GAD and MDE were reported in several studies using similar screening methods¹³⁻¹⁶. As expected, the number of females exceeded males in both groups, which is a well established finding in several studies¹⁷. The prevalence of MDE – current type was within the range of the established rate of 6% of the population who meet the criteria for major depressive disorders at any time¹⁸.

Associated factors such as age, gender, education and employment were not significant statically. However, a bigger sample might confirm that the attendees with higher education and employment rates were at higher risk of developing GAD. Illiterate people were more among the sample compared to GAD and MDE but such difference could not be evaluated further due to the small numbers. Only one fifth of the GAD and MDE were recognized prior to screening and less than half had received treatment. Screening instruments such as MINI increased the total number of GAD and MDE four folds.

This will reinforce the notion whether PHCCs are equipped to manage such a large number and whether recognition of cases of GAD and MDE translate into improved clinical outcomes.

The study suffers from several limitations that should be considered while interpreting the findings. The diagnoses of GAD and MDE were based on instrument guided interview

conducted by non-experienced staff in diagnosing mental illness. Hence, it is likely that false positive cases were included which might have been reflected by increasing the prevalence rates. The study sample was small, which could interfere with establishing significance of less frequent social factors. In addition, choosing only one centre from each governorate restricts comparing the characteristics of attendees among the governorates. However, restrictions of the number of the participating PHCCs was inevitable due to limited financial and human resources. Although the results of this study can be generalized to the PHCC attendees, national generalization should be done with caution.

Efforts to improve recognition must be addressed within the context of management of anxiety and depression. Screening of clinical disorders appears to work best if feedback to PHCCs physicians was immediate and was part of multifaceted system of depression care¹⁹.

In overview of screening and feedback on recognition and outcome of depression found that only feedback of high risk cases increased the rate of recognition²⁰. Depression should be managed like a chronic disease with a systematic sequence of acute, continuation and maintenance phase intervention²¹. A multifaceted intervention that combines mutual health skill training, adapted clinical guidelines to raise awareness is necessary^{22,23}.

CONCLUSION

This study shows that in Bahrain generalized anxiety disorder and major depressive episode are very common along primary care attendees. Thus, primary care physicians should be alerted of this fact.

Future studies should be planned to include a bigger sample from all health centers with an additional stage that examine all positive cases by experienced staff.

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