ORIGINAL

Antecedents of Depression in Primary Health Care in Bahrain

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ABSTRACT

According to some epidemiological studies, 20-30% of all adults experience depressive episodes during their life time. Fiftyfour Bahraini patients who were diagnosed as having major depressive illness during 1981 were selected as cases for this study, 38 were females and 16 were males. The study documents that 'depression' is more common in females than males and that multiple somatic presentations can be a prominent feature of 'depression'.

Depression is a common psychiatric disorder which, according to the 1976 World Health Organisation statistics, affects 3% of the world population [1]. Epidemiological studies in different parts of the world reveal that about 20-30% of all adults experience depressive episodes at some time in their lives [2-6]. Of those, only about 10-25% seek help from the medical profession; an even smaller proportion consults psychiatrists. Psychiatric help is not always sought for reasons of shame, stigma and others [2-6].

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Depressive illness can mimic many medical and psychiatric conditions in its somatic presentation [7]. Somatic symptomatology can be localised to certain individual body systems or generalised and spread with more systemic involvement, as in masked depression or depressive equivalents [8-11]. Over the years, patients have learned to emphasise physical complaints because of the notion that physicians treat physical illness which is recognised through its somatic presentation [8]. Thus, psychiatric conditions may also be somatized in their presentation, a phenomenon which poses some difficulties in the early recognition and management of depressive illness [12, 13].

No previous studies of the subject have been conducted in the whole Arabian Gulf region. This is a retrospective case-control study designed to identify the problems encountered in the diagnosis and management of major depression. In addition, information on types of somatic complaints and number of visits due to depressive illness has been obtained.

METHODS

Bahrain is an archipelago situated in the Arabian Gulf, east of the Kingdom of Saudi Arabia. It covers an area of approximately 600 sq. km and has a population of 350,798 [14]. Primary health care is provided in a countrywide network of health centres with a back-up system of specialised hospitals for the provision of secondary care.

All Bahraini families are registered in the health centre of their catchment area, and a separate folder is maintained for each family. Referrals to the secondary health care system are made by the family physicians through the health centres.

All Bahraini patients attending the psychiatric hospital and newly diagnosed as having a major depressive illness during the period between January 1st and December 31st 1981 were selected as cases. Both in-patients and out-patients were included in the study. Medical records of in-patients were identified through the psychiatric hospital information system [15], and those of out-patients through the hospital register. Criteria for major depressive illness adopted from the Diagnostic and Statistical Manual of Mental Disorders (D.S.M. III) [16] were used in selecting the cases. This procedure yielded 73 patients with major depression, 54 of whom were registered at the primary health care centres; the latter were chosen to constitute the cases in this study because health records for the previous months were available. Of these 54, 38 were females and 16 were males.

Controls were chosen from among Bahraini patients attending the primary health care centres during the study period for non-psychiatric conditions. They were matched by health centre attended, month of registration, age (± 5 years) and sex, using a simple random sample of family folders in the health centre.

An abstract form was designed for the collection of demographic data, number of visits and somatic complaints from the family folder. Symptoms other than those listed in the abstract form were specified. The medical records of each case and its control were reviewed for the six-month period prior to the date of diagnosis of each case. Comparison of number of visits and complaints was done for each of the two study groups. A matched pair analysis was carried out for somatic complaints and for the most frequently reported symptoms.

RESULTS

The mean age of the cases was 35.9 years, with a range of between 17 and 70 years. The female-to-male ratio was 2.4:1 (Table 1).

TABLE I

The Distribution of Cases by Sex and Mean Age

Types of Cases	*No.*	*Male*	*Female*	*Ratio*	*Mean Age*
All Cases	73	49	24	2:1	35.9
Included Cases	54	39	16	2.4:1	34.9
Excluded Cases	19	11	8	1.3:1	38.9

The total number of health centre visits for the cases was 195, with an average of 3.6 visits per person, and a standard deviation of 4.9. On the other hand, the total number of visits for the controls was 56 with an average of 1.0 visit and a standard deviation of 2.2. The difference was statistically significant ($P < 0.001$) (Table 2). A detailed analysis of the number of visits shows that 54% of the cases consulted their family physician at least once during the study period compared to 26% of the controls. In addition, 13% of the cases consulted their family physician ten times or more, while none of the controls exceeded nine visits (Table 2). This was not found to be statistically significant.

TABLE II

The Distribution of Number of Visits in Cases and Controls

No. of Visits	*Cases*		*Controls*	
	No.	*%*	*No.*	*%*
0	25	46.3	40	74.1
1	2	3.7	4	7.4
2-4	9	16.7	4	7.4
5-9	11	20.3	6	11.1
10 +	7	13.0	0	0
TOTAL	54	100.0	54	100.0
Mean (+)	3.6		1.0	
Standard Deviation (S.D)	4.9		2.2	

When somatic symptoms were compared for cases and controls, it was revealed that sleep disturbance, palpitations and chest pain, fatigue, nausea and vomiting, visual complaints and smothering were found only in the cases. Generalised body aches, abdominal pain, headache and dizziness were more commonly present in cases. Indeed, 25 of the cases reported 2 or more symptoms; whereas, only 4 controls reported more than one symptom (Table 3).

TABLE III

The Distribution of Number of Somatic Symptoms among Cases and Controls

No. of Symptoms	*Cases*		*Controls*	
	No.	*%*	*No.*	*%*
0	27	48.1	46	85.2
1	2	5.6	4	7.4
2	6	11.1	4	7.4
3 +	19	35.2	0	0
TOTAL	**54**	**100.0**	**54**	**100.0**

$P < 0.005$

This difference was statistically significant. Loss of libido was found neither in cases nor in controls. A matched pair analysis for each complaint showed a statistically significant difference for all the complaints except for loss of appetite, visual complaints, fatigue and weakness (Table 4). Trauma was the only condition with a statistically significant difference, being more common in controls. Respiratory tract infections were the most common cause of attendance among both cases and controls.

DISCUSSION

This study shows that depression is more common in females than in males, confirming what has already been published [6, 17]. The average age for the cases was 35.9 years with a median and mode equal to 35 years which is lower than reported previously.

TABLE IV

The Distribution of Complaints of Cases and Controls Complaints

Complaint	*Cases*	*Controls*	X^2	*P*
1. Abdominal Pain	13	2	11	* 0.001
2. Headache	13	2	11	* 0.001
3. Generalised Bodyache	18	4	10.9	* 0.001-0.002
4. Sleep Disturbance	10	0	10	* 0.002
5. Dizziness	11	1	8.3	* 0.003-0.005
6. Palpitations & Chest Pain	8	0	8	* 0.005
7. Constipation	5	2	4	* 0.046
8. Nausea & Vomiting	4	0	4	* 0.046
9. Smothering	4	0	4	* 0.046
10. Loss of Appetite	3	0	3	0.083
11. Visual Complaints	3	0	3	0.083
12. Weakness, Fatigue	2	0	2	0.157-0.317
13. Others			1.5	0.157-0.317
Specify				
a) Trauma	0	5	5	* 0.025
b) Upper Respiratory Tract Infection	10	6	1.33	0.157−0.317

*Statistically significant

The study also reveals that the cases have a higher number of patient initiated visits in the six-month period preceding their diagnosis of major depression. This was statistically significant. The same result was also found to be true of certain somatic complaints (Table 3 & 4). Twenty seven cases did not present with any somatic complaints prior to their diagnosis, compared to 46 controls. Only

among cases, were three or more somatic complaints found, an observation which is statistically significant ($P < 0.005$). This suggests that multiple somatic presentation can be a prominent feature of depressive illness [11, 18].

Abdominal pain was one of the most frequent complaints and also the most statistically significant ($P < 0.001$). Hill found that 6 out of 27 patients with non-organic abdominal pain were suffering from depressive illness severe enough to require antidepressant medications [19]. Headache was also a frequent complaint with a statistical significance equal to that found for abdominal pain ($P < 0.001$). Sherwin reported that patients suffering from intractable headache, for which no organic causes could be elicited through investigations, were found to have depression by using the Zung self rating depression scale [20]. Other symptoms presented by the cases were statistically significant compared to controls (Table 4). Some studies confirm these findings [17, 21, 22, 23]. In one study on dizziness, psychiatric conditions were found to be the most common cause [22]. Swanson et al. showed a higher incidence rate of depression in individuals suffering from persistent nausea and vomiting [23]. Trauma was not the cause of attendance for any studied case, but trauma was the cause for five controls with a statistical significance of $P < 0.025$. This may be due to the fact that depressed patients usually have loss of energy with decreased interest and pleasure in the usual activities. Weakness and fatigue were shown to be statistically significant in some studies [17, 21]. However, this is not supported here probably because Bahraini patients tend to use bodyache rather than fatigue to express their illness. On the other hand, sexual disturbance and loss of libido which were documented by Mathew, Weinman and Mirabi [21] were not noted in any of the study groups, which is probably due to cultural reasons.

CONCLUSION

From the results of this study, it is possible to conclude that somatic complaints, and particularly those with multiple presentation, can be manifestations of depressive illnesses. It is therefore important that a family physician should consider depression when dealing with such complaints, especially if these lack evidence of organic aetiology and are accompanied by an increase in the number of visits to the health centre. It is recommended that the physician ask direct, yet tactful, questions about other symptoms of depression in order to avoid diagnostic errors in the early recognition of the illness.

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