

Comparison of Frequency of Depression Among Patients and Their Healthy Attendants at Medical Out-Patient Department of Civil Hospital Karachi

Sarah Fatima,¹ Tahira Zubair,¹ Syada Sahab,¹ Suneel Veerwani,¹ Kanwal Mohanlal,¹ Bader Faiyaz Zuberi,² Talat Sultana,¹ Urooj Ahmed¹ and Junaid Ahmed¹

ABSTRACT

Objective: To determine frequency of depression in patients and their healthy attendants at medical OPD of Civil Hospital Karachi.

Patients & Methods: Patients attending medical OPD were administered DSM-IV questionnaire comparative observational. Equal number of healthy attendants with the patients were selected as control. Diagnosis of depression was made if DSM-IV score of = 5 was present. Frequencies of depression were compared with control. Two groups were analyzed basis of gender, marital status, education and occupation.

Results: During the study, 236 patients and equal number of controls were included. The mean DSM-IV score was significantly higher in patient group (3.8/Standard Deviation?) as compared with control group (1.6/ Standard Deviation?). The number of depressed subjects in control group was 19 (8.1%) and that in patient group was 99 (41.9%), the difference was statistically significant (χ^2 test; p value <0.001). No difference in frequency of depression was found on basis of marital status but significant differences were found on the basis of gender, education and occupation.

Conclusion: Significant numbers of patients attending the medical OPD were depressed.

Key words: Depression, DSM-IV, Outpatients.

INTRODUCTION

Depression affects about 20% of normal adult population annually. Out of these about 40% seek general medical advice from Internal medicine while a very small number of patients seek specific psychiatric advice.¹⁻² This leads to delay in start of treatment which causes increased severity of depression.³ Problem is compounded due to somatization in majority of these patients who start seeking medical advice for these symptoms instead of depression.⁴ The ability of general physicians to recognize depression is limited.⁵

Depression is more likely to occur with certain medical illnesses. The include heart disease, stroke, diabetes, cancer, hormonal disorders (especially peri-menopause or hypothyroidism), Parkinson's disease and Alzheimer's disease.⁶⁻⁹

1 MBBS, Final Year Student, Dow Medical College, Dow University of Health Sciences, Karachi, Pakistan.

2 Department of Medicine, Dow Medical College, Dow University of Health Sciences, Karachi, Pakistan.

Correspondence: Dr. Bader Faiyaz Zuberi, Department of Medicine, Dow Medical College, Dow University of Health Sciences, Karachi, Pakistan.

Email: bader@zuberi.net

Reporting of depression is very low in our society due to myths attached to the psychiatric disease and patients and their families are reluctant to accept it and thus, it remains a neglected area.¹⁰ There is a simple criterion given in Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) for diagnosis of depression in outpatient clinics.

Diagnosis of depression is important as treatment for depression in conjunction with the treatment of the co morbid illness gives good prognosis than the treatment alone for their disease.¹¹ Depression is also a risk factor for noncompliance with medical treatment.¹²⁻¹³ This study was designed to document the frequency of depression using DSM-IV in patients attending general medical clinic and to compare it with healthy controls. This study will help in documenting the magnitude of this problem and will help in making proper strategies in management of depression.

PATIENTS & METHODS

All patients of either gender attending medical OPD of Civil Hospital Karachi from June 2010 to September 2010 were enrolled for the study after taking informed consent. For each patient enrolled, a normal attendant

of patient was taken as control. Patients attending psychiatry OPD, taking anti-depressant drugs were excluded. Ethical approval for the study was obtained from Dow University of Health Sciences (DUHS). Demographic information regarding age, gender and address were recorded in the study proforma in OPD. DSM-IV questions were read out by investigating medical student to the subjects who were unable to read and responses recorded. Each question was given a score of one and patients with score of = 5 were labeled depressed. Mean age \pm SD of selected patients was calculated and compared among genders by Student's t test. P value of = 0.05 was taken as significant. Depression was compared between the two groups using χ^2 test.

Statistical analysis was performed using Predictive Analytics Software (PASW) version 18.0. Demographic variables of gender, marital status, education and occupation were compared between control and patient group using χ^2 test.

RESULT

A total of 236 patients and equal number of healthy controls were enrolled in the study according to the selection criteria. There were 35.6% (n=84) males and 64.4% (n=152) females in patient group while there were 40.3% (n=95) males and 59.7% (n=141) females in control group. The percentage of married people in control group was lower as compared to patient group [34.7% (n= 82) vs 72.5% (n=171)] Demographic details are given in Table I.

The mean of DSM-IV score was significantly higher in patient group (3.8 ± 2.4) as compared with control group (1.6 ± 1.8). Application of Student's t-test gave highly significant p-value of <0.001 . The DSM-IV scores in both groups were recoded into new variable using criteria of > 5.0 all those satisfying this criterion were labeled as depressed. Frequency of depressed subjects in control group was 19 (8.1%) and that in patient group was 99 (41.9%), the difference was statistically significant (χ^2 test; p value <0.001).

The patient group was further studied for frequency of depression according to various variables like gender, marital status, education and occupation. Frequency of depression inpatient group according to gender was males 20/99 (20.2%) and females were 79/99 (79.8%). Depression was significantly more frequent among females in patient group with p value <0.001 . In the in patient group, 171 subjects were married. Frequency of depression in married patients 75/171(43.9%) was not significantly different from that in unmarried

patients 96/171 (56.1% , (χ^2 test; p = 0.377). Frequency of depression was seen highest in illiterate patients and lowest in graduates (details are given in Table II). Difference in frequency of depression according to occupation was also statistically significant (χ^2 test; p value = 0.001) with none of the students was depressed while its frequency in employed was 25.3% (n=25), in unemployed was 31.3% (n=31) and was highest in house wives at 43.4% (n=43).

Table I: Demographic Detail of Subjects

		Groups	
		Control n (%)	Patient n (%)
Age (years)		27.7 \pm 10.7	38.1 \pm 13.3
Gender	Male	95 (40.3)	84 (35.6)
	Female	141 (59.7)	152 (64.4)
Marital status	Married	82 (34.7)	171 (72.5)
	Unmarried	154 (65.3)	65 (27.5)
Education	Illiterate	26 (11.0)	110 (46.6)
	Primary	14 (5.9)	71 (30.1)
	Matric	27 (11.4)	32 (13.6)
	Undergraduate	97 (41.1)	12 (5.1)
	Graduate	72 (30.5)	11 (4.7)
Occupation	Student	101 (42.8)	14 (5.9)
	Housewife	33 (14.0)	81 (34.3)
	Employed	90 (38.1)	71 (30.1)
	Unemployed	12 (5.1)	70 (29.7)

Table II: Depression according to Education status (n=236, the patient group only?) If yes, where is the comparison?

Educational Status	Control n=236	Patient n=236
Illiterate	3	59
Primary	0	31
Matric	1	7
Undergraduate	8	2
Graduate	7	0

Pearson Chi-Square Tests

		Group	
		Control	Patient
		Depression	Depression
Education Status	Chi-square	2.619	22.650
	df	4	4
	Sig.	.623 ^a	.000*

Results are based on nonempty rows and columns in each innermost sub table.

a More than 20% of cells in this sub table have expected cell counts less than 5. Chi-square results may be invalid.

* The Chi-square statistic is significant at the 0.05 level.

DISCUSSION

Our study showed that a significant number of patients attending the medical OPD were depressed. This is an important finding as the patients were not aware of it neither they were seeking a therapy for depression, and were not taking any therapy for depression.¹⁴

Depression is one of the common associations with chronic illness. It is estimated that up to one-third of individuals with a serious medical condition experience symptoms of depression.¹⁵ Presence of depression also results in negative impact on quality of life of sufferer.¹⁶ This effect have been shown in patients in many diseases like chronic heart failure, dyspepsia, liver diseases and malignancy.¹⁷⁻¹⁹

Recognition and appropriate diagnosis of depression in primary care is associated with significantly greater short-term improvement, thus increasing recognition of depression in primary care is desirable.¹⁴

Although we did not study the predisposing factors responsible for depression in our patients, in another study major predictors of depression in out-patients were identified as baseline physical disability, marital status, early treatment adequacy and early remission on the course of major depression.²⁰ In our study marked gender difference was observed with about 80% of the females were depressed. Similar female preponderance was also observed in epidemiological survey of 23 European countries where depression was found to be more prevalent in females.²¹⁻²² In our study frequency of depression was also found to be relatively higher in illiterate and unemployed, this effect was also reported in another study which showed similar trend in prevalence of depression.²³ Full-time employment and holding a technical and professional job is shown to be with reduced risk of depression.²³ On the other hand increased verbal aggression, urinary incontinence, increased pain, weight loss, change in care needs, cognitive decline and decline in activities of daily living significantly increased the likelihood of new depression.²⁴

CONCLUSION

Depression was found in significant number of patients attending medical outpatient department which has significant effect on quality of life and compliance to treatment. There is a need to increase awareness both in treating physicians and patients to address this important issue.

REFERENCES

1 Titov N, Andrews G, Kemp A, Robinson E. Characteristics of adults with anxiety or depression treated at an internet clinic: comparison with a national survey and an outpatient clinic. *PLoS One* 2010; 5:e10885.

2 Wells JE, Oakley Browne MA, Scott KM, McGee MA, Baxter J, Kokaua J. Te Rau Hinengaro: the New Zealand Mental Health Survey: overview of methods and findings. *Aust N Z J Psychiatry* 2006; 40:835-44.

3 Post RM, Leverich GS, Kupka RW, Keck PE, Jr., McElroy SL, Altshuler LL, et al. Early-onset bipolar disorder and treatment delay are risk factors for poor outcome in adulthood. *J Clin Psychiatry* 2010; 71:864-72.

4 Tamayo JM, Roman K, Fumero JJ, Rivas M. The level of recognition of physical symptoms in patients with a major depression episode in the outpatient psychiatric practice in Puerto Rico: an observational study. *BMC Psychiatry* 2005; 5:28.

5 Ziegelstein RC, Kim SY, Kao D, Fauerbach JA, Thombs BD, McCann U, et al. Can doctors and nurses recognize depression in patients hospitalized with an acute myocardial infarction in the absence of formal screening? *Psychosom Med* 2005; 67:393-7.

6 Weinstein AA, Kallman Price J, Stepanova M, Poms LW, Fang Y, Moon J, et al. Depression in patients with nonalcoholic Fatty liver disease and chronic viral hepatitis B and C. *Psychosomatics* 2011; 52:127-32.

7 Reinke LF, Slatore CG, Udriș EM, Moss BR, Johnson EA, Au DH. The association of depression and preferences for life-sustaining treatments in veterans with chronic obstructive pulmonary disease. *J Pain Symptom Manage* 2011; 41:402-11.

8 Nichols GA, Moler EJ. Cardiovascular disease, heart failure, chronic kidney disease and depression independently increase the risk of incident diabetes. *Diabetologia* 2011; 54:523-6.

9 Shang AB, King SA. Parkinson's disease, depression, and chronic pain. *Hosp Community Psychiatry* 1991; 42:1162-3.

10 Naeem F, Ayub M, Izhar N, Javed Z, Irfan M, Haral F, et al. Stigma and knowledge of depression: a survey comparing medical and non-medical students and staff in Lahore, Pakistan. *Pak J Med Sci* 2005; 21:155-8.

11 Xu W, Collet JP, Shapiro S, Lin Y, Yang T, Platt RW, et al. Independent effect of depression and anxiety on chronic obstructive pulmonary disease exacerbations and hospitalizations. *Am J Respir Crit Care Med* 2008; 178:913-20.

12 Hayashino Y, Suzuki H, Yamazaki K, Izumi K, Noda M, Kobayashi M. Depressive symptoms, not completing a depression screening questionnaire, and risk of poor compliance with regular primary care visits in patients with type 2 diabetes: the Japan Diabetes Outcome Intervention Trial 2 (J-DOIT2) study group. *Exp Clin Endocrinol Diabetes* 2011; 119:276-80.

13 Navarro V. Improving medication compliance in patients with depression: Use of orodispersible tablets. *Adv Ther* 2010; 27:785-95.

- 14 Simon GE, Goldberg D, Tiemens BG, Ustun TB. Outcomes of recognized and unrecognized depression in an international primary care study. *Gen Hosp Psychiatry* 1999; 21:97-105.
- 15 Larson C, Belue R, Schlundt DG, McClellan L. Relationship between symptoms of depression, functional health status, and chronic disease among a residential sample of African Americans. *J Ambul Care Manage* 2006; 29:133-40.
- 16 Kil SY, Oh WO, Koo BJ, Suk MH. Relationship between depression and health-related quality of life in older Korean patients with chronic obstructive pulmonary disease. *J Clin Nurs* 2010; 19:1307-14.
- 17 Haag S, Senf W, Hauser W, Tagay S, Grandt D, Heuft G, et al. Impairment of health-related quality of life in functional dyspepsia and chronic liver disease: the influence of depression and anxiety. *Aliment Pharmacol Ther* 2008; 27:561-71.
- 18 Faller H, Stork S, Schuler M, Schowalter M, Steinbuchel T, Ertl G, et al. Depression and disease severity as predictors of health-related quality of life in patients with chronic heart failure--a structural equation modeling approach. *J Card Fail* 2009; 15:286-92.
- 19 Frick E, Tyroller M, Panzer M. Anxiety, depression and quality of life of cancer patients undergoing radiation therapy: a cross-sectional study in a community hospital outpatient centre. *Eur J Cancer Care (Engl)* 2007; 16:130-6.
- 20 Weinberger MI, Sirey JA, Bruce ML, Heo M, Papademetriou E, Meyers BS. Predictors of major depression six months after admission for outpatient treatment. *Psychiatr Serv* 2008; 59:1211-5.
- 21 Van de Velde S, Bracke P, Levecque K. Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression. *Soc Sci Med* 2010; 71:305-13.
- 22 Parker G, Brotchie H. Gender differences in depression. *Int Rev Psychiatry* 2010; 22:429-36.
- 23 Miyake Y, Tanaka K, Sasaki S, Hirota Y. Employment, income, and education and risk of postpartum depression: The Osaka Maternal and Child Health Study. *J Affect Disord* 2011; 130:133-7.
- 24 Phillips LJ, Rantz M, Petroski GF. Indicators of a new depression diagnosis in nursing home residents. *J Gerontol Nurs* 2011; 37:42-52.

