International Journal of Life Sciences, Biotechnology and Pharma Research Vol. 13, No. 7, July 2024 Online ISSN: 2250-3137
Print ISSN: 2977-0122

DOI: 10.69605/ijlbpr_13.7.2024.46

ORIGINAL RESEARCH

To assess the illness details and treatment related details in patients with psychiatric disorders

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Received Date: 26 May, 2024 Acceptance Date: 27 June, 2024

ABSTRACT

Aim: The aim of the present study was to assess the illness details and treatment related details. **Methods:** The cross-sectional study was conducted at Dr. D. Y. Patil Medical College, Hospital and Research centre, Pimpri, Pune from July 2015 to September 2017 and 126 patients were included in the study. **Results:** The majority of patients 78(61.9%) were in the age group of less than 40 years and there were 48(38.1%) cases who were aged more than 40 years. Majority of cases were females 67(53.2%) and 59(46.8%) cases were males. 89 (70.63%) patients who were not having past history of psychiatric illness and 37(29.37%) were having past history of psychiatric illness. 114 patients (90.48%) were not having past history of medical illness and 12(9.52%) were having past history of medical illness. there were 107(84.92%) cases who were having no family history of psychiatric illness and 19(15.08%) cases who were having family history of psychiatric illness. The patients who were taking treatment in that there were 46(51.7%) cases who were taking antipsychotics, 19(21.3%) was taking antidepressants,11(12.4%) cases were taking both antipsychotics and mood stabilizers,9(10.1%) were taking other drugs followed by 4(4.5%) taking mood stabilizers.56(62.9%) cases were taking treatment for ≥3 months and 33(37.1%) cases were taking it for <3months. **Conclusion:** The study suggests that patients suffering from psychiatric disorders are at higher risk of developing metabolic syndrome. The Framingham risk score and 10 years coronary heart disease risk was also found to be higher in these patients. The factors which were found to be responsible for high risk of metabolic syndrome in psychiatric disorders were older age, female gender, schizophrenia, antipsychotic drugs class and its duration of use (≥3mnths), family history of psychiatric illness, low physical activity, increased frequency of substance use and deranged metabolic parameters.

Keywords: illness details, treatment related details.

INTRODUCTION

Patient with mental illness have shown two times increase in mortality with an average life span of 8.2 years less in comparison to general population, in which majority of deaths (95.4%) were due to medical cause rather than unnatural causes.[1,2] The mortality among people with Psychiatric illness, including schizophrenia, bipolar illness, schizoaffective disorder, and depression is 2–3 times higher than in the general population, while life expectancy is between 13–30 years shorter compared to people without mental disorders. It is very astonishing that this trend is still increasing, even in developed countries where the medical system is rated as excellent. The sixty percent mortality in patients suffering from psychiatric illnesses are caused by somatic diseases.[3,4] The most common somatic disorders and diseases that occur in people with mental illness include cerebrovascular disease, obesity, metabolic syndrome , type 2 diabetes and cardiovascular disease.[5,6]

Cardiovascular disorder has been recognized as the leading cause of deaths in many part of the world and the risk attributed to cardiovascular disorder can be reduced by changes in certain modifiable risk factors such as tobacco use, physical activity, hypertension, elevated LDL, cholesterol and other interrelated metabolic risk factors.[7]Metabolic disorders such as

DOI: 10.69605/ijlbpr_13.7.2024.46

metabolic syndrome, hypertension, diabetes mellitus, dyslipidemia and obesity are the main associations of cardiovascular disorder and mortality arising due to it. There is an increased morbidity in patients with severe mental illness which can be related to unhealthy lifestyle, medication and also the patients with mental illness don't get to receive treatment for physical illness as promptly when compared to mentally healthy patients. However psychiatric symptoms such as anxiety, lack of energy, factors associated like social isolation, difficulty in planning are also the major concern for patients suffering with either depression or schizophrenia.[8]In Asian population the prevalence of metabolic syndrome was noted to be around 20-25% while in psychiatric patients it was found to be around 20-40%.This is the major concern for metabolic assessment in patients with psychiatric disorder.[9]

The aim of the present study was to assess the illness details and treatment related details.

MATERIALS AND METHODS

The cross sectional study was conducted at Dr. D. Y. Patil Medical College, Hospital and Research centre, Pimpri, Pune from July 2015 to September 2017 and 126 patients were included in the study.

Inclusion criteria

- Patients presenting with psychiatric disorders at a tertiary care centre for the first time
- Patients taking some psychotropic medications
- Adults >20yrs Old

Exclusion criteria

- Patients who refused to give consent
- Pregnant women with psychiatric illness
- All those who have delivered a child in past 1 year

ETHICS

IEC (Institute ethics committee) clearance was obtained before starting the study.

Written and informed consent was obtained, from all patients.

METHODOLOGY

Informed consent was taken from all the patients who were the part of this study. At any point any patient who was found to be incompetent on the basis of severity of any illness to provide informed consent the caregiver who were staying with the patient were approached for the same. After explaining the purpose and design of the study all the patients who were diagnosed with psychiatric disorders according to ICD-10 by two senior psychiatrists of tertiary health care system were recruited.

Patient's age, demographic features; family history, level of education, duration of disease, use of alcohol and or nicotine, use of concomitant medications or psychotropic drug history, history of diagnosis and treatment of diabetes, dyslipidaemia, hypertension or any other medical conditions was also evaluated and mentioned. Calibrated Scales was used to measure body weight and height in kilograms and centimeters respectively. Waist circumference was measured at a point taken midway between inferior costal margin and superior iliac crest at the end of normal expiration while standing. Blood pressure in supine position was noted by using standard mercury manometer and at least two readings at five minutes intervals were taken. If blood pressure was >140/90 mm of Hg then a third reading after 30 minutes was recorded and the lowest of these readings was taken. Fasting blood sugar, triglyceride, high density lipoprotein values were also estimated by taking fasting venous samples under aseptic measures. Metabolic Syndrome was diagnosed in the enlisted study group from the data obtained after obtaining all the biochemical values and comparing the values with the base values which were mentioned in the International Diabetes Federation Criteria and then 10 yearscardiovascular risk was assessed in the same patient by using the Framingham risk scoring. The data obtained according to the study requirement was analyzed using the proper statistical methods.

TOOLS

INTERNATIONAL DIABETES FEDERATION CRITERIA (IDF):

Metabolic syndrome was first defined by International Diabetes Federation in 2006 and of all the criterion which were used this was the only criteria which was epidemiologically and clinically relevant. This was well adapted as these provided a differential profile for Asian populations.

These definitions gave priority to abdominal obesity (Abdominal circumference of ≥ 90cms and ≥ 80cms for men and women of Asian origin respectively and 102cms and 88cms for Non-Asians male and females respectively. The other criteria used was Triglyceride levels of > 150 mg/dl, a systolic blood pressure ≥130 mm of Hg or a diastolic blood pressure ≥85 mm of Hg, A fasting plasma glucose level of ≥100 mg/dl, high density lipoproteins of <40 mg/dl and 50 mg/dl for men and women respectively. The IDF criteria needs central obesity plus any other two or more out of five criteria.[10]

FRAMINGHAM CARDIOVASCULAR RISK SCORE (FRS):

The Framingham Risk Score is a sex specific algorithm that was used to estimate the 10 years cardiovascular risk of an individual. The score was estimated on the basis of age, sex, total cholesterol, high density lipoprotein (HDL) cholesterol, diabetes mellitus, smoking habits and systolic arterial pressure. The Framingham Risk Score first originated based on the data that was obtained from Framingham Heart Study to estimate the 10 years risk of developing coronary heart disease. In addition to coronary heart

DOI: 10.69605/ijlbpr_13.7.2024.46

disease prediction 10 years cardiovascular disease risk, periphery artery disease, heart failure, cerebrovascular events were subsequently added in 2008 Framingham Risk Score.[11]

STATISTICAL ANALYSIS

The scales were scored as per the test manual. Data was collected, compiled and tabulated.The statistical analysis was done using parametric test and the final interpretation was based on Z test (standard normal variate) with 95% level of significance. Results were statistically analyzed using the software:- Statistical package for the social science (SPSS) Version 21. Parametric data was analyzed by paired and unpaired T test. Frequency data was analyzed by chi square test.

RESULTS

Table 1: Baseline characteristics

Age (Yrs)	No. of cases	Percentage
21–30	40	31.7
31–40	38	30.2
41–50	32	25.4
>50	16	12.7
Sex		
Male	59	46.8
Female	67	53.2
Education		
Illiterate	56	44.4
Primary	36	28.6
Secondary	8	6.3
Highersecondary	14	11.1
Graduate	12	9.5
Marital status		
Married	79	62.7
Unmarried	41	32.5
Separated	2	1.6
Divorced	4	3.2
Residence		
Rural	68	54
Urban	58	46
Occupation		
Unskilled	71	56.3
Skilled	23	18.3
Housewife	17	13.5
Student	4	3.2
Unemployed	11	8.7

The majority of patients 78(61.9%) were in the age group of less than 40 years and there were 48(38.1%) cases who were aged more than 40 years. Majority of cases were females 67(53.2%) and 59(46.8%) cases were males. 56(44.4%) cases were illiterates, 36 patients (28.6%) were educated upto primary level,14(11.1%) were from higher secondary level,12(9.5%) were graduates and 8(6.3%) were educated upto secondary level. 79(62.7%) cases were married ,41 cases(32.5%) were unmarried,4(3.2%) were divorced and 2(1.6%) cases were separated.68(54%) patients were belonging to rural areas and 58(46%) cases were from urban India. 71(56.3%) cases were unskilled,23(18.3%) were skilled,17(13.5%) were housewife,11(8.7%) cases were unemployed and 4(3.2%) cases were students.

Table 2: Psychiatric illness wise, Past H/O psychiatric illness, Past H/O medical illness, Family H/O illness distribution of cases in study group

Psychiatricillness	No. of cases	Percentage
Schizophrenia(F20)	56	44.44
Delusionaldisorder(F22)	3	2.38
Bipolar Affective Disorder & Manic episode(F30-31)	22	17.5
Unipolar depression(F32-33)	20	15.9
Others(F00,42,41,44,45,10,60,70)	25	19.8
Past H/O psychiatric illness		
Yes	37	29.37

DOI: 10.69605/ijlbpr_13.7.2024.46

No	89	70.63
Past H/O medical illness		
Yes	12	9.52
No	114	90.48
Family H/O illness		
Yes	19	15.08
No	107	84.92

56(44.4%) cases were having Schizophrenia,3(2.38%) were having Delusional disorder, 25(19.8%) cases were from Others group, 22(17.5%) cases were from Bipolar Affective Disorder and Manic episode group and 20(15.9%) cases were of Unipolar depression.89 (70.63%) patients who were not having past history of psychiatric illness and 37(29.37%) were having past history of psychiatric illness. 114 patients (90.48%) were not having past history of medical illness and 12(9.52%) were having past history of medical illness. there were 107(84.92%) cases who were having no family history of psychiatric illness and 19(15.08%) cases who were having family history of psychiatric illness.

Table 3: Treatment taken, Drugclasswise, duration of treatment

Treatmenttaken	No. of cases	Percentage
Yes	89	70.6
No	37	29.4
Drug class		
Antipsychotics	46	51.7
Mood stabilizers	4	4.5
Antipsychotic + Mood stabilizers	11	12.4
Antidepressants	19	21.3
Others	9	10.1
Duration (month)		
≥3	56	62.9
<3	33	37.1

There were 89(70.6%) cases were on treatment and 37(29.4%) cases who were off treatment. The patients who were taking treatment in that there were 46(51.7%) cases who were taking antipsychotics,19(21.3%) were taking antidepressants,11(12.4%) cases were taking both antipsychotics and mood stabilizers,9(10.1%) were taking other drugs followed by 4(4.5%) taking mood stabilizers.56(62.9%) cases were taking treatment for ≥3 months and 33(37.1%) cases were taking it for <3months.

DISCUSSION

Participation in an assessment may change the behavior that is aimed to be investigated.[12,13] In health behavior research, such effects have been called “mere-measurement effect”, “assessment reactivity”, or “question-behavior effect”.[14,15] A meta-analysis found small but significant effect sizes for measurement of physical activity (PA).[14] Altering PA can occur as a result of wearing a device[16,17] or filling out a questionnaire on past behavior or on cognitions related to PA.[18,19]

The majority of patients 78(61.9%) were in the age group of less than 40 years and there were 48(38.1%) cases who were aged more than 40 years. This finding was consistent with a study done by Lakhan et al[20] which showed that age is an important predictor of mental illness in the population irrespective of the residential settings. Majority of cases were females 67(53.2%) and 59(46.8%) cases were males. This was in accordance to a study done by Malhotra et al[21] where they found that gender differences occurs in mental disorder but women predominates.56(44.4%) cases were illiterates, 36 patients (28.6%) were educated upto primary level,14(11.1%) were from higher secondary level,12(9.5%) were graduates and 8(6.3%) were educated upto secondary level. This was consistent with a study done by Gomes et al[22] where maximum number of individual suffering from mental disorders had completed their studies only till their secondary education and another possible explanation would be that poor education candecrease people skills and could lead to faulty coping mechanism making them prone to mental health illnesses.[23]

79(62.7%) cases were married ,41 cases(32.5%) were unmarried,4(3.2%) were divorced and 2(1.6%) cases were separated.Even in comparison with other developing countries, India has one of the lowest ages at marriage.[24]68(54%) patients were belonging to rural areas and 58(46%) cases were from urban India. This was in accordance to a study done at India where prevalence of mental illness was found to be higher in rural settings, considering the fact that larger population of rural population lives in poverty, it can be a significant determinant of mental health illnesses.[20]71(56.3%) cases were unskilled,23(18.3%) were skilled,17(13.5%) were housewife,11(8.7%) cases were unemployed and 4(3.2%) cases were students.In general, persons suffering from mental

DOI: 10.69605/ijlbpr_13.7.2024.46

illness also have neurocognitive impairment and maladaptive social functioning which hinders them to continue their higher education, which tends to affect entry into the skilled job market.[25,26]

56(44.4%) cases were having Schizophrenia,3(2.38%) were having Delusional disorder, 25(19.8%) cases were from Others group, 22(17.5%) cases were from Bipolar Affective Disorder and Manic episode group and 20(15.9%) cases were of Unipolar depression.89 (70.63%) patients who were not having past history of psychiatric illness and 37(29.37%) were having past history of psychiatric illness. This was in accordance to a study performed at a tertiary care hospital which showed that maximum patients presenting to a tertiary care were from Psychosis group.[27]114 patients (90.48%) were not having past history of medical illness and 12(9.52%) were having past history of medical illness. This was in accordance to a study done by Turnel et al[28] which showed that patients with chronic conditions often have to adjust their aspirations, lifestyles and employments, which leads to prolonged distress and result in psychiatric disorders. There were 107(84.92%) cases were having no family history of psychiatric illness and 19(15.08%) cases who were having family history of psychiatric illness.This was in accordance to a study done by Foley et al[29] which showed increased prevalence of diabetes in psychiatric patients and this may be due to shared environmental and genetic factor.

There were 89(70.6%) cases were on treatment and 37(29.4%) cases who were off treatment. The patients who were taking treatment in that there were 46(51.7%) cases who were taking antipsychotics,19(21.3%) were taking antidepressants,11(12.4%) cases were taking both antipsychotics and mood stabilizers,9(10.1%) were taking other drugs followed by 4(4.5%) taking mood stabilizers.56(62.9%) cases were taking treatment for ≥3 months and 33(37.1%) cases were taking it for <3months.This was in accordance to a study where Alhabbad et al[30] which found that antipsychotics are the most heavily prescribed psychotropic drug.In a similar study done in south Asia there were 28.7 % patients who were having treatment gap. Several factors leading to non compliance were searched and it was found that feeling of wellness, paranoia to medicines, lack of insight to illness, medication side effects, financial problems and no significant improvement were some of the reasons found.[31,32]

CONCLUSION

The study suggests that patients suffering from psychiatric disorders are at higher risk of developing metabolic syndrome. The Framingham risk score and 10 years coronary heart disease risk was also found to be higher in these patients. The factors which were found to be responsible for high risk of metabolic syndrome in psychiatric disorders were older age, female gender, schizophrenia, antipsychotic drugs class and its duration of use (≥3mnths), family history of psychiatric illness, low physical activity, increased frequency of substance use and deranged metabolic parameters.

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