

Psychiatric morbidity among patients in cardiac outpatient department

Bushra Sultana,¹ Muhammad Zillur Rahman Khan,² Sadya Tarannum,³ Nasim Jahan,⁴
Ahsan Uddin Ahmed,⁵ Md Faruq Alam⁶

¹Psychiatrist, Dhaka, Bangladesh; ²Assistant Professor, Department of Child, Adolescent and Family Psychiatry, National Institute of Mental Health (NIMH), Sher-E-Bangla Nagar, Dhaka, Bangladesh; ³Assistant Professor, Department of Psychiatry, Ashiyan Medical College, Dhaka, Bangladesh; ⁴Assistant Professor, Department of Geriatric Psychiatry, Shaheed Suhrawardy Medical College Hospital, Dhaka, Bangladesh; ⁵Assistant Professor, Department of Psychiatry, Bangladesh Institute of Research and Rehabilitation for Diabetes, Endocrine and Metabolic Disorders (BIRDEM), Dhaka, Bangladesh; ⁶Professor, Department of Child, Adolescent and Family Psychiatry, NIMH, Dhaka, Bangladesh.

Article info

Received : 27 Sept. 2016
Accepted : 01 Dec. 2016
Number of tables : 02
Number of figures : 03
Number of refs : 12

Summary

Psychiatric morbidity among patients attending cardiac outpatient department has been revealed as a significant problem in many studies. The objective of this study was to determine the proportion of psychiatric morbidity among cardiac outdoor patients in National Institute of Cardio-Vascular Diseases (NICVD), Dhaka. It was a cross-sectional study conducted from September 2015 to February 2016 among the purposively selected patients of NICVD outdoor. Convenient sampling technique was used to select 151 patients aged 18 to 65 years who were attending the cardiac outpatient department in NICVD, Dhaka. A semi-structured questionnaire including Self-Reporting Questionnaire (SRQ) was used to screen psychiatric symptoms. Results showed that the mean (+SD) age of the patients was 46.09 (+11.17) years and majority of the respondents (60.9%) were male. The most common cardiac morbidity was ischemic heart disease (29.8%). Among all the respondents, 21.9% were suffering from psychiatric disorders. Maximum of the cases were diagnosed with major depressive disorder (11.3%). Thus, it was apparent that psychiatric morbidity was commonly present in patients who attended cardiac outpatient departments.

Correspondence

Bushra Sultana,
E- mail: rimi.bs@gmail.com

Bang J Psychiatry 2015;29(1):1-4

Introduction

The co-morbidity between psychiatric disorders and cardiovascular disease (CVD) has received growing attention in recent scientific literatures. Psychiatric disorders such as depression and anxiety, represent an additional risk for Coronary Artery Disease (CAD) besides contributing to impaired functioning for patients with CAD.¹ As a consequence, the co-existence of physical and psychiatric morbidity negatively affects the course and outcome of both the conditions resulting in increased overall burden of disease. In a study conducted in Nepal, it was found that the presence of major depression negatively affects the outcome of some illnesses such as myocardial infarction.² On the other hand, cardiac events often result in disability and a change in social role functioning.³ This leads to many psychiatric diseases especially depression and anxiety. For all of these reasons, there have been many studies outside Bangladesh regarding the psychiatric morbidity among cardiac patients. A study in Brazil among 42 male CAD patients attending a medically-supervised cardiac rehabilitation exercise program showed 38%

to have one or more psychiatric disorders.¹ One study conducted in 2001 in Bikaner, India found high prevalence (75%) of diagnosable psychiatric morbidity among patients attending cardiac OPD. Depression was the most common (38.67%) diagnosis but panic disorder was the main diagnosis (38.10%) among pure psychiatric patients. 21% of the patients were not having any organic pathology and presented to cardiology because of their visceral (cardiac) symptoms.⁴

There are very few studies in Bangladesh regarding the psychiatric morbidity among cardiac patients. Among them, a study in 2011 among patients admitted to an inpatient unit of cardiology department of a tertiary level hospital in Sylhet, Bangladesh showed that in patients of coronary artery disease, the proportion of depression was 23.28%.⁵ In another study conducted in Dhaka, Bangladesh, 100 patients undergoing ECG recording in cardiac outpatient department were assessed for prevalence of panic disorder and 18% of patients met the DSM-III-TR criteria for panic disorder.⁶

In Bangladesh, so far there was little data available on the prevalence and other socio demographic variables of psychiatric illnesses among patients attending cardiac OPD. The objective of this study was to show the pattern of psychiatric illness among patients who have already been diagnosed with cardiac disease. This will help in planning proper diagnosis and treatment in time of these non-cardiac psychiatric disorders and may reduce mortality, improve quality of life and speed the recovery of patients with cardiac diseases.

Materials and methods

This cross sectional study was conducted from September 2015 to February 2016 among 151 patients attending the outdoor department of National Institute of Cardio-vascular Diseases (NICVD), Dhaka. Both male and female patients aged 18 to 65 years examined by a cardiologist were the study population. For ethical reasons, patients with severe medical illnesses and unconscious patients whose psychiatric evaluation was not possible and patients who needed immediate cardiac intervention were excluded from the study. After taking written informed consent, data collector applied a semi structured socio demographic questionnaire and the SRQ was applied to screen psychiatric symptoms. The Self Reporting Questionnaire (SRQ), a psychiatric case finding instrument, was developed by World Health Organization (WHO) to screen for psychiatric disturbance especially in developing countries. It is applicable for both health care facilities as well as residents in communities. It was well validated and widely used in many studies.^{7,8} Those who were SRQ positive, were referred to an Assistant Professor of National Institute of Mental Health (NIMH), Dhaka who was a qualified psychiatrist. The psychiatrist assessed the patients in the outdoor patient department of NIMH. Diagnosis of a psychiatric disorder was done by using the Diagnostic and Statistical Manual of mental Disorders, fifth edition (DSM-5) criteria.

Data were collected through self administered written questionnaire. After proper processing and handling, data were encoded. Analysis was done by Statistical Package for Social Sciences (SPSS) for windows version 12. After thorough cleaning and editing of data, frequency table, summary tables, and appropriate graphs were used for presentation of results using appropriate statistical techniques. All the tests were two tailed and $p < 0.05$ was considered statistically significant. The research was conducted in full accord with ethical principles.

Results

Among the respondents, majority (60.9%) were male. Only fifty nine (39.1%) were female (Table 1). Highest proportion (37.1%) of the respondents was included in the age group of 41-50 years whereas the lowest proportion (6.6%) of the respondents was included in the age group of 61-65 years (Figure 1). The mean \pm SD age of the patients was calculated as 46.09 (\pm 11.17) years.

Table 1: Distribution of respondents according to sex (n=151)

Sex of the respondents	Frequency	Percentage
Male	92	60.9
Female	59	39.1
Total	151	100

Among 151 patients, 53 patients (35.1%) were diagnosed with any type of cardiovascular disease. The most common cardiac

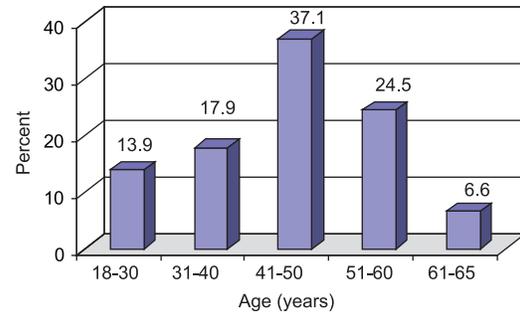


Figure 1: Distribution of respondents according to age (n=151)

morbidity was ischemic heart disease (29.8%) (Table 2). Among the respondents (n=151), 21.9% (n=33) were suffering from psychiatric illness and the rest 78.1% (n=118) didn't have any psychiatric morbidity (Figure 2).

Table 2: Distribution of cardiovascular disease among the respondents (n=53)

Types of cardiovascular disease	Frequency	Percentage
Ischemic heart disease	45	29.8
Rheumatic heart disease	2	1.3
Cardiomyopathy	3	2.0
Valvular heart disease	2	1.3
Heart failure	1	0.7
Total	53	35.1

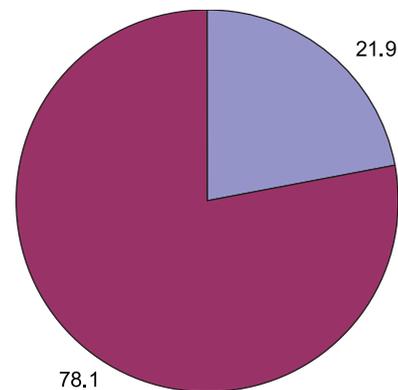


Figure 2: Proportion of the respondents with psychiatric disorder (n=151)

Maximum of the cases were diagnosed with major depressive disorder (11.3%), next was panic disorder (5.9%). Dysthymic disorder was found in 2.6% and generalized anxiety disorder was found in 2% of the respondents (Figure 3).

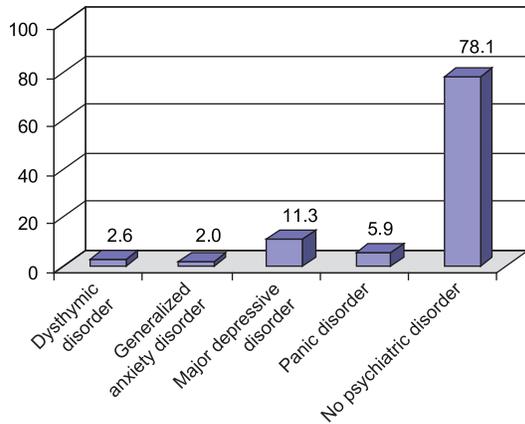


Figure 3: Different types of psychiatric disorder among the respondents (n=151)

Discussion

The present study showed that the proportion of psychiatric illness in the respondents was 21.9% (33 out of 151 patients). Epidemiological studies on the proportion of psychiatric morbidity in the cardiac outpatient department were scarce. In one study conducted in a government hospital in Bikaner, India, it was found that the prevalence of diagnosable psychiatric morbidity among cardiac OPD was very high (75%).⁴ Compared to this study, the present study showed a much lower prevalence. This may be due to the difference in study sample characteristics and also due to the screening tools which were used. The Indian study used the Hindi version of Goldberg's general health questionnaire and diagnosis was made according to ICD-10. But in the present study, Self Reporting Questionnaire (SRQ) was used for screening and diagnosis was made according to DSM-5.

In the present study, 11.3% patients had major depressive disorder and 2% patients had generalized anxiety disorder. Compared to this, in the study in Bikaner, India, the prevalence was much higher, i.e. 38.67% patients had depression and 18.67% patients had generalized anxiety disorder.⁴ This vast difference may be explained by the difference in study population and method of the study. In this study, major depressive disorder was found in 15.6% of ischemic heart disease patients. This finding was close to the findings of a study in Bangladesh which assessed depression in coronary artery disease patients where the prevalence of depression to be 23.28%.⁵

Our study was done among patients attending the cardiac outpatient department. Patients both with cardiac disease and

without cardiac disease were included in this study. Also no critical case was included in this study. So here, the incidence of depression was lower compared to other international studies. Our study was done among patients attending the cardiac outpatient department. Patients both with cardiac disease and without cardiac disease were included in this study. Also no critical case was included in this study. So here the incidence of depression was lower compared to other international studies.

In our study, 7.94% (12 out of 151) of patients were not diagnosed with a physical illness. These patients presented to the cardiology OPD because of their physical symptoms e.g. chest pain, palpitations. Among them, 75% (9 out of 12) had a psychiatric illness. Various authors have also reported that patients consult to medical or cardiac departments because of their various physical symptoms.⁹⁻¹² Among these patients, panic disorder is a common diagnosis. Our study results reflected this association. It was found that 75% (9 patients out of the 12) outdoor patients with no organic pathology had panic disorder. Overall, 5.96% (9 out of 151) of the total sample were suffering from panic disorder.

In a study in Bangladesh, which was done on 100 consecutive patients undergoing ECG monitoring in the cardiology outpatient department of NICVD, the prevalence of panic disorder was 18%.⁶ Our study sample consisted of both old and new patients attending the cardiac outdoor. Panic disorder was found only among the new patients. Hence, the prevalence of panic disorder in our study was lower compared to other studies, which only concentrated on emergency patients, or patients who were referred for ECG monitoring.

In this study, patients who presented with cardiac disease which needed immediate hospital admission could not be included in the sample due to ethical reasons. Because of this, a large proportion of our sample (64.9%) consisted of patients with no cardiovascular disease. In the Indian study in Bikaner, only 21 out of 100 patients had no cardiac illness,⁴ which is a much lesser proportion compared to our study. This could be attributed to the fact that their sample consisted of less illiterate patients and mostly educated patients. So their patients were comparatively more aware of which symptoms were cardiac in origin and which are not. But in our study, 25.2% of the patients were illiterate so they may have wrongly suspected themselves of having a cardiac disease and so came to the cardiac outdoor for assessment.

Also public awareness of psychiatric illness is very low in Bangladesh and there is a high stigma regarding being labeled as a psychiatric patient. This may cause many patients to misattribute their psychiatric symptoms as physical symptoms. In our study, among psychiatric patients, major depressive

disorder (11.3%, 17 out of 151 patients) was the most frequent diagnosis, followed by panic disorder (5.9%), dysthymic disorder (2.6%) and generalized anxiety disorder (2%). Among the 17 patients with major depressive disorder, 7 patients had associated cardiovascular disease.

Although optimum care had been tried by the researcher in every steps of this study, still some limitations existed. Purposive sampling technique was followed in this study, so there could be some selection bias. The study was conducted in one selected institution with relatively small sample size. So, the study population may not represent the all the cardiac OPD patients of Bangladesh and limits the generalization of the results. Only patients who were being released with outdoor prescription could be interviewed for the study. The rest of the patients could not be interviewed as they were rushing to conduct an ECG test or to get admitted to the indoor department as soon as possible.

Conclusion

The present study shows that the proportion of psychiatric morbidity among patients attending cardiac outpatient department is very high. There is a need to improve the knowledge of psychiatry among general practitioners and cardiologists so that they can adequately screen the patients for psychiatric morbidity and refer them to psychiatric facilities where possible. In addition, the government should create awareness programs for the general public about mental health in cardiac patients on a large scale in regular basis all over the country.

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