CODEN [USA]: IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
http://doi.org/10.5281/zenodo.3659705

Available online at: http://www.iajps.com *Research Article*

A CORRELATION STUDY OF DEPRESSION IN ADULTS PATIENTS WITH CARDIAC PROBLEMS

Junaid Zafar[1], Sana Fatima[2], Nabila Mazhar[3]

Article Received: December 2019 **Accepted:** January 2020 **Published:** February 2020

Abstract:

Aims and objectives: *The basic aim of the study is to analyses the level of depression in adults patients with cardiac problems.* ***Material and methods:*** *This cross sectional study was conducted in health department of Punjab during March 2019 to November 2019. Individuals aged 25–64 years in the selected study area who gave consent for participation were considered. The data was collected through questionnaire in which we can find the level of depression and its factors among cardiac patients.* ***Results:*** *The mean and median ages of the study participants were 35 and 32 years old respectively (Table 01). Regarding the self or family history of any chronic disease; 50 (10.3%), and 16 (3.3%) of the total study participants were known hypertensive, and diabetes mellitus (DM) patients respectively, while 82 (16.8%) and 64 (13.1%) have family history of hypertension and DM respectively. On the other hand, 182 (37.4%) and 131 (26.9%) of the total respondents were Chat chewer and smoker respectively.* ***Conclusion:*** *It is concluded that depression negatively affects patients with cardiovascular diseases. There are several pathophysiologic mechanisms linking depression and cardiac events as well as behavioral processes.*

Corresponding author:
Junaid Zafar,

QR code

Please cite this article in press Junaid Zafar et al., ***A Correlation Study Of Depression In Adults Patients With Cardiac Problems.,****Indo Am. J. P. Sci, 2020; 07(02).*

INTRODUCTION:

Major depression is a debilitating condition that presents with a number of cognitive and biological symptoms, including a pervasively lowered mood, anhedonia, negative cognitions, anergia, and appetite disturbance, and at its worst can manifest itself with suicidal thoughts and acts and psychotic features [1]. Hypertension is a major public health problem due to its high prevalence all around the globe. Around 7.5 million deaths or 12.8% of the total of all annual deaths worldwide occur due to high blood pressure. It is predicted to be increased to 1.56 billion adults with hypertension in 2025 [2]. Raised blood pressure is a major risk factor for chronic heart disease, stroke, and coronary heart disease. Elevated BP is positively correlated to the risk of stroke and coronary heart disease. Other than coronary heart disease and stroke, its complications include heart failure, peripheral vascular disease, renal impairment, retinal hemorrhage, and visual impairment [3].

Hypertension (or HTN) or high blood pressure is defined as abnormally high arterial blood pressure. According to the Joint National Committee 7 (JNC7), normal blood pressure is a systolic BP < 120 mmHg and diastolic BP < 80 mm Hg. Hypertension is defined as systolic BP level of ≥140 mmHg and/or diastolic BP level ≥ 90 mmHg. The grey area falling between 120–139 mmHg systolic BP and 80–89 mmHg diastolic BP is defined as "prehypertension". Although prehypertension is not a medical condition in itself, prehypertensive subjects are at more risk of developing HTN [4].

Hypertension is a state of elevated systemic blood pressure which is commonly asymptomatic. It is a major cardiovascular risk factor that is closely associated with lethal complications like coronary artery disease, cerebro-vascular accidents, heart and renal failure. Hypertension is an overwhelming global challenge, which ranks third as a means of reduction in disability-adjusted life-years [5]. Besides, it is the leading cause of mortality. Globally, nearly one billion people have hypertension; of these, two-thirds are in developing countries. The burden of chronic non-communicable diseases (NCDs) in developing countries has risen sharply in recent years. The new epidemic of hypertension and cardio-vascular diseases is not only an important public health problem, but it will also have a big economic impact as a significant proportion of the productive population becomes chronically ill or die, leaving their families in poverty [6].

Aims and objectives

The basic aim of the study is to analyses the level of depression in adults patients with cardiac problems.

MATERIAL AND METHODS:

This cross sectional study was conducted in health department of Punjab during March 2019 to November 2019. Individuals aged 25–64 years in the selected study area who gave consent for participation were considered. The data was collected through questionnaire in which we can find the level of depression and its factors among cardiac patients.

Statistical analysis

The data of respiratory function were compared between the smoker and non-smoker groups using the independent t-test for normally distributed data or the Mann-Whitney U test for other distributions. Differences were considered statistically significant at $p<0.05$.

RESULTS:

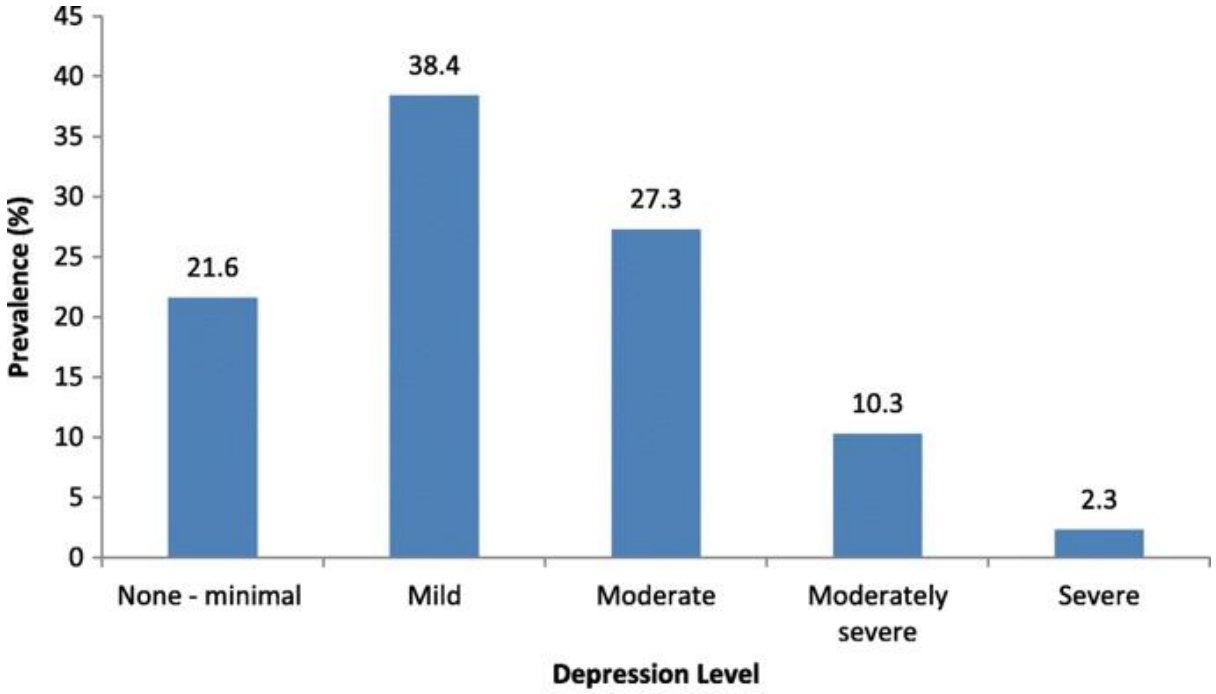
The mean and median ages of the study participants were 35 and 32 years old respectively (Table 01). Regarding the self or family history of any chronic disease; 50 (10.3%), and 16 (3.3%) of the total study participants were known hypertensive, and diabetes mellitus (DM) patients respectively, while 82 (16.8%) and 64 (13.1%) have family history of hypertension and DM respectively. On the other hand, 182 (37.4%) and 131 (26.9%) of the total respondents were Chat chewer and smoker respectively

Table 1: Socio-demographic characteristics of study participants in Jigjiga city, October–November 2014

Variables	Frequency	Percent
Sex		
Male	2381	48.9
Female	249	51.1
Age (years) [Mean = 35]		
25–34	285	58.5
35–44	125	25.7
45–54	48	9.9
55–65	29	6.0
Marital status		
Single	176	36.1
Married	254	52.2
Others	57	11.7

Highest level of education		
Illiterate	9	1.8
Literate but no formal education	34	7.0
Primary school (1–8)	104	21.4
Secondary school (9–12)	133	27.3
Certificate or higher	207	42.5
Income (birr)		
Low level	139	33.3
Medium level	157	37.6
High level	121	29.1

Depression prevalence or significant clinical depression based on PHQ > 9, i.e. at least moderate depression, was 40.2%. However, further analyses used depression based on non-minimal depression (PHQ-9 score ≥ 5), which was present in 78.4% [$n = 304$; 95% CI (73.9, 82.3)] (Fig. 4). Non-minimal depression (PHQ-9 score ≥ 5) was associated with a number of demographic and lifestyle variables and comorbidities such as sex ($p = 0.015$), employment ($p = 0.007$), hypertension ($p = 0.017$), previous stressful life ($p \leq 0.001$), current stressful life ($p = 0.001$), previous feelings of depression ($p \leq 0.001$), current feelings of depression ($p \leq 0.001$), regular exercise ($p \leq 0.001$), and loneliness ($p \leq 0.001$).



DISCUSSION:

During the past decades, researchers have documented a significant negative impact of depression on various outcomes in patients with cardiovascular disease (CVD). Apart from the cardiac disease itself it is not uncommon that these patients experience the burden of another condition such as depression, often contributing to the worsening of their somatic illness, thus, entrapping them in a possible vicious circle [7].

Minor forms of depression have been reported in 20% of patients after an acute myocardial infarction (AMI), while rates of major depression vary between 16% and 45% of patients after an AMI. Approximately two-fifths of patients with angina suffer from depression. The incidence increases in patients following coronary artery bypass graft surgery [8]. Depressive symptoms appear to be associated with severe functional limitation in patients with chronic heart failure (CHF) after discharge, and functional limitation may be viewed as a behavioural factor affecting the progression of the disease [9-10]. However, it is not clear whether there is a distinct link between depression and cardiac events as well as their chronological sequence. Some authors have proposed that depression may be both an antecedent and a consequence in patients with CHF [11].

CONCLUSION:

It is concluded that depression negatively affects patients with cardiovascular diseases. There are several pathophysiologic mechanisms linking

depression and cardiac events as well as behavioral processes. Improvements in nursing and medical care have prolonged survival of this patient population; however, this beneficial outcome may have led to increased prevalence of depression.

REFERENCES:

1. Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. Archives of General Psychiatry. 1961;4:561–571.
2. Beck AT, Steer RA. Internal consistencies of the original and revised Beck Depression Inventory. Journal of Clinical Psychology. 1984;40(6):1365–1367.
3. Robins LN, Helzer JE, Croughan J, Ratcliff KS. National Institute of Mental Health Diagnostic Interview Schedule. Its history, characteristics, and validity. Archives of General Psychiatry. 1981;38(4):381–389.
4. Derogatis LRaS KL. The scl-90-r and brief symptom inventory (bsi) in primary care. In: Maruish ME, editor. Handbook of Psychological Assessment in Primary Care Settings. New York, NY, USA: Lawrence Erlbaum Associates; 2000.
5. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. Acta Psychiatrica Scandinavica. 1983;67(6):361–370.
6. Rijnders CAT, van den Berg JFM, Hodiamont PPG, et al. Psychometric properties of the schedules for clinical assessment in neuropsychiatry (SCAN-2.1) Social Psychiatry and Psychiatric Epidemiology. 2000;35(8):348–352.
7. Burnam MA, Wells KB, Leake B, Landsverk J. Development of a brief screening instrument for detecting depressive disorders. Medical Care. 1988;26(8):775–789.
8. Zung WW. A self-rating depression scale. Archives of General Psychiatry. 1965;12:63–70.
9. Yesavage JA, Brink TL. Development and validation of a geriatric depression screening scale: a preliminary report. Journal of Psychiatric Research. 1982;17(1):37–49
10. Radloff LS. The ces-d scale: a self report depression scale for research in the general population. Applied Psychological Measurement. 1977;1:385–401.
11. Goldberg DP, Hillier VF. A scaled version of the General Health Questionnaire. Psychological Medicine. 1979;9(1):139–145.