

Assessment of Psychiatric Illness Among Patients with Hypertension: An Institutional Based Study

Parag Dhobale

Associate Professor, Department of Psychiatry, RD Gardi Medical College, Ujjain, Madhya Pradesh, India.

ABSTRACT

Background: Patients with hypertension manifested symptoms of anxiety, depression, and stress. This shows that the patient's hypertensive state and perhaps the need for adherence to the anti-hypertensive medications placed psychological demands on their health. The present hospital-based cross-sectional study was carried out to assess psychiatric illness among patients with hypertension.

Materials and Methods: A hospital-based cross-sectional study was carried out to assess psychiatric illness among patients with hypertension. 240 hypertensive patients were included in the study. Complete history was taken. The recorded data was compiled, and data analysis was done using SPSS (SPSS Inc., Chicago, Illinois, USA).

Results: In the present study 240 hypertensive patients were selected. Psychiatric illness was absent in 210(87.5%) hypertensive patients and present in 30 (12.5%) hypertensive patients. According to gender psychiatric illness was more common in females than males.

Conclusion: The present study concluded that psychiatric illness was present in 12.5% hypertensive patients and it was more common in females than males.

Keywords: Psychiatric Illness, Hypertensive Patients, Anxiety.


*Correspondence to:

Dr. Parag Dhobale,
Associate Professor,
Department of Psychiatry,
RD Gardi Medical College,
Ujjain, Madhya Pradesh, India.

Article History:

Received: 17-09-2018, Revised: 26-10-2018, Accepted: 21-11-2018

Access this article online

Website: www.ijmrp.com	Quick Response code 
DOI: 10.21276/ijmrp.2018.4.6.084	

INTRODUCTION

Hypertension is a major public health problem in the United States. It is the leading risk factor for chronic cardiovascular disease occurrence, ischemic heart diseases, and stroke. In addition, hypertension has significant economic implication.¹ Hypertension is a chronic disease and a major public health issue which progressively damages multiple end organs, increases cardiovascular mortality, and leads to outcomes like cerebrovascular accidents and renal failure.^{2,3} The coexistence of mental disorders with chronic illnesses like hypertension, diabetes mellitus, and dyslipidemia is well known.⁴

Like patients with other chronic medical conditions, hypertensive patients experience many profound emotions which increase their risk for the development of mental health disorders particularly anxiety and depression.^{5,6} Imperative to the management of hypertension is the need for patients to adhere to pharmacological and non-pharmacological therapies and these negative emotions may adversely influence their adherence behaviour.⁷

In parallel to hypertension, psychiatric disorders also represent a significant global health burden.⁸ Over 25% of the population will develop psychiatric disorders.⁹ Mood (depressive) and anxiety (e.g., panic disorder and generalized anxiety disorder) disorders are the most commonly diagnosed disorders, with yearly point

prevalences in Canadian adults estimated to be 4.5 and 4.7%, respectively.¹⁰ The present hospital-based cross-sectional study was carried out to assess psychiatric illness among patients with hypertension.

MATERIALS AND METHODS

A hospital-based cross-sectional study was carried out to assess psychiatric illness among patients with hypertension. 240 hypertensive patients were included in the study. Before the commencement of the study ethical approval was taken from the Ethical Committee of the institute and written consent was taken from the patient after explaining the study. Patients included in the study were patients with diagnosis of hypertension only or hypertension with other co-morbid conditions, reporting prescription of at least one antihypertensive medication for a minimum of two months and an age of at least eighteen years. The sample did not include pregnant women (because of the possibility of gestational hypertension which may resolve after delivery), newly diagnosed patients. Complete history was taken. The recorded data was compiled, and data analysis was done using SPSS (SPSS Inc., Chicago, Illinois, USA). P-value less than 0.05 was considered statistically significant.

RESULTS

In the present study 240 hypertensive patients were selected. Psychiatric illness was absent in 210 (87.5%) hypertensive patients and present in 30 (12.5%) hypertensive patients. According to gender psychiatric illness was more common in females than males.

Table 1: Prevalence of psychiatric illness

Psychiatric illness	N(%)
Present	30(12.5%)
Absent	210(87.5%)
Total	240(100%)

Table 2: Prevalence of psychiatric illness according to gender

Gender	N(%)
Male	13(43.33%)
Female	17(43.33%)
Total	30(%)

DISCUSSION

The fact that hypertension is implicated in the development and progression of CVD and that hypertension seems to be more prevalent in those with higher levels of depression and/or anxiety^{11,12} have led to the hypothesis that hypertension may be an intermediary link between psychopathology and CVD¹³. Mechanistically, this hypothesis also makes sense. Increased levels of both depression and anxiety are associated with health behaviour patterns that increase the risk of developing hypertension (e.g., higher rates of smoking, and less physical activity)¹⁴⁻¹⁷, as well as physiological patterns that are predictive of increased blood pressure (BP) levels (e.g., elevated cardiovascular reactivity during stress and poor cardiovascular recovery following stress)¹⁸⁻²⁰. In the present study 240 hypertensive patients were selected. Psychiatric illness was absent in 210(87.5%) hypertensive patients and present in 30 (12.5%) hypertensive patients. According to gender psychiatric illness was more common in females than males.

Several studies show that major depression and anxiety states are much more common in women than in men.²¹⁻²³ However, in men, stressful conditions could be linked to alcohol and smoking habits as a potential coping measure.^{21,24}

Another longitudinal study of black South Africans, normotensive at baseline, showed that psychological distress was associated with twice the risk for future development of hypertension.²⁵

In a related cross-sectional study of hypertension across 9 countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine), Footman et al. found a significant association between psychological distress (measured using the 12-item distress component of the Living Conditions, Lifestyles and Health Project) and hypertension with an odds ratio of 2.27 (95% CI 1.91–2.70).²⁶

CONCLUSION

The present study concluded that psychiatric illness was present in 12.5% hypertensive patients and it was more common in females than males.

REFERENCES

1. Uddin MD, Alam N, Sarma H, Chowdhury MAH, Alam DS, Niessen L. Consequences of hypertension and chronic obstructive pulmonary disease, healthcare-seeking behaviors of patients, and responses of the health system: a population-based cross-sectional study in Bangladesh. *BMC Public Health* 2014;14:547.
2. Kearney PM, Whelton M, Reynolds K, et al. Global burden of hypertension: analysis of worldwide data. *Lancet* 2005;365(9455): 217–23. DOI: 10.1016/S0140-6736(05)17741-1.
3. Oliveria SA, Chen RS, McCarthy BD, et al. Hypertension knowledge, awareness, and attitudes in a hypertensive population. *J Gen Intern Med* 2005;20(3):219–225. DOI: 10.1111/j.1525-1497.2005.30353.x.
4. Zolezzi M, Abdulrhim S, Isleem N, et al. Medical comorbidities in patients with serious mental illness: a retrospective study of mental health patients attending an outpatient clinic in Qatar. *Neuropsychiatr Dis Treat* 2017;13:2411–8. DOI: 10.2147/NDT.S141448
5. DeJean D, Giacomini M, Vanstone M, Brundisini F: Patient experiences of depression and anxiety with chronic disease: a systematic review and qualitative meta-synthesis. *Ont Health Technol Assess Ser* 2013, 13(16):1–33.
6. Vetere G, Ripaldi L, Ais E, Korob G, Kes M, Villamil A: Prevalence of anxiety disorders in patients with essential hypertension. *Vertex* 2007, 18(71):20–25.
7. Duvdevany I, Cohen M, Minsker-Valtzer A, Lorber M: Psychological correlates of adherence to self-care, disease activity and functioning in persons with systemic lupus erythematosus. *Lupus* 2011, 20:14–22.
8. R. C. Kessler, T. C. Wai, O. Demler, and E. E. Walters. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity survey replication. *Archives of General Psychiatry* 2005; 62(6): 617–27.
9. M. C. Kastrup and A. B. Ramos. *Global mental health. Danish Medical Bulletin* 2007; 54(1): 42–3.
10. K. Grimes and G. Roberts, Project IN4M: Integrating Needs for Mental Well-Being into Human Resource Planning, Literature Review and Environmental Scan, Canadian Mental Health Association, Ottawa, Canada, 2010.
11. L. Meng, D. Chen, Y. Yang, Y. Zheng, and R. Hui. Depression increases the risk of hypertension incidence: a meta-analysis of prospective cohort studies. *Journal of Hypertension* 2012; 30(5):842–51.
12. T. Rutledge and B. E. Hogan. A quantitative review of prospective evidence linking psychological factors with hypertension development. *Psychosomatic Medicine* 2002; 64(5):758–66.
13. A. Scuteri. Depression and cardiovascular risk: does blood pressure play a role? *Journal of Hypertension* 2008;26(9):1738–9.
14. J. L. Allan, D. W. Johnston, M. Johnston, and D. Mant. Depression and perceived behavioral control are independent predictors of future activity and fitness after coronary syndrome events. *Journal of Psychosomatic Research* 2007; 63(5): 501–8.
15. M. H. M. de Moor, D. I. Boomsma, J. H. Stubbe, G. Willemsen, and E. J. C. de Geus. Testing causality in the association between regular exercise and symptoms of anxiety and depression. *Archives of General Psychiatry* 2008; 65(8): 897–905.
16. K. M. Appleton, J. V. Woodside, J. W. G. Yarnell et al. Depressed mood and dietary fish intake: direct relationship or

indirect relationship as a result of diet and lifestyle? *Journal of Affective Disorders* 2007; 104(1-3): 217-23.

17. T. W. Strine, A. H. Mokdad, S. R. Dube et al. The association of depression and anxiety with obesity and unhealthy behaviors among community-dwelling US adults. *General Hospital Psychiatry* 2008; 30(2): 127-37.

18. C. M. M. Licht, E. J. C. D. Geus, A. Seldenrijk et al. Depression is associated with decreased blood pressure, but antidepressant use increases the risk for hypertension. *Hypertension* 2009; 53(4): 631-8.

19. B. H. Friedman. An autonomic flexibility-neurovisceral integration model of anxiety and cardiac vagal tone. *Biological Psychology* 2007; 74(2): 185-99.

20. C. M. M. Licht, E. J. C. de Geus, F. G. Zitman, W. J. G. Hoogendijk, R. van Dyck, and B. W. J. H. Penninx. Association between major depressive disorder and heart rate variability in the Netherlands Study of Depression and Anxiety (NESDA). *Archives of General Psychiatry* 2008; 65(12): 1358-67.

21. Schuch JJ, Roest AM, Nolen WA, Penninx BW, de Jonge P: Gender differences in major depressive disorder: results from the Netherlands study of depression and anxiety. *J Affect Disord* 2014;156:156-63.

22. Chou KL, Cheung KC: Major depressive disorder in vulnerable groups of older adults, their course and treatment, and psychiatric comorbidity. *Depress Anxiety* 2013;30:528-37.

23. Grant BF, Stinson FS, Hasin DS, Dawson DA, Chou SP, Ruan WJ, Huang B: Prevalence, correlates, and comorbidity of bipolar I disorder and axis I and II disorders: results from the National

Epidemiologic Survey on Alcohol and Related Conditions. *J Clin Psychiatry* 2005;66:1205-15.

24. Foster J, Read D, Karunanithi S, Woodward V: Why do people drink at home? *J Public Health (Oxf)* 2010;32: 512-8.

25. Schutte AE, Ware LJ, Huisman HW, Fourie CM, Greeff M, Khumalo T, Wissing MP: Psychological distress and the development of hypertension over 5 years in black South Africans. *J Clin Hypertens (Greenwich)* 2015;17: 126-33.

26. Footman K, Roberts B, Tumanov S, McKee M: The comorbidity of hypertension and psychological distress: a study of nine countries in the former Soviet Union. *J Public Health (Oxf)* 2013;35:548-57.

Source of Support: Nil. **Conflict of Interest:** None Declared.

Copyright: © the author(s) and publisher. IJMRP is an official publication of Ibn Sina Academy of Medieval Medicine & Sciences, registered in 2001 under Indian Trusts Act, 1882.

This is an open access article distributed under the terms of the Creative Commons Attribution Non-commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Cite this article as: Parag Dhobale. Assessment of Psychiatric Illness Among Patients with Hypertension: An Institutional Based Study. *Int J Med Res Prof.* 2018 Nov; 4(6):358-60. DOI:10.21276/ijmrp.2018.4.6.084