

Psychological health among patients with coronary heart disease

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Abstract:

BACKGROUND:

Patients with Coronary Heart Disease (CHD) often experience heightened levels of stress, depression & anxiety because of the condition is persistent, there is a worry of further cardiac episodes, lifestyle adjustments and financial burdens. Psychological effect can lead to decreased adherence to medical treatment, unhealthy coping mechanisms and a decline in overall Quality of Life (QoL). Hence, addressing these psychological issues is essential to improvise their Psychological Health (PH) that in turns helpful in improvising their condition and enhancing wellbeing.

OBJECTIVE: To assess the level of psychological health among patients with coronary heart disease

MATERIALS AND METHODS: A descriptive correlational study design was used with a convenience sampling technique to assess psychological health among 119 reported patients diagnosed with coronary heart disease from Belagavi District by using Psychological Health Scale (Part B) of the P.G.I. Health Questionnaire.

STATISTICAL ANALYSIS: Percentage method and Independent *t*-test were applied.

RESULTS: Majority of the patients (33.61%) showed poor level of psychological health.

CONCLUSION: The level of psychological health is poor in patients with CHD and there exist significant difference between male and female patients with CHD.

Key words: Psychological health, Coronary heart disease, CHD patients, Quality of life, Psychological factors.

I. INTRODUCTION

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”
World Health Organization (1946)¹

Holistic theories of health emphasize the interconnectedness of physical, mental and social factors in determining overall well-being. This approach highlights that optimal health involves more than just freedom from illness—it requires functioning effectively across multiple domains. Deviations from this balance such as chronic stress or emotional distress can significantly impact an individual's overall health.²

Psychological Health:

Psychological health is a vital part of overall health and well-being. It affects how one think, feel, relate to others and function in our daily lives. The term "psychological health" describes a person's emotional, cognitive, and social wellness which includes the ability in order to control stress, sustain fulfilling relationships and adapt to challenges in life. It influences thoughts, behaviours and feelings, playing a critical role in overall health and quality of life.³

Numerous research findings indicate that psychological health is essential for maintaining a good quality of life as it influences coping mechanisms, emotional well-being and social relationships. Patients with CHD often experience elevated levels of stress, anxiety and depression due to the chronic nature of their condition and the fear of future cardiac events. Assessment and improvement of psychological health are crucial for enhancing the overall quality of life and health outcomes of CHD patients as poor mental health can lead to unhealthy lifestyle choices and reduced adherence to treatment plans.^{4,5,6}

Understanding the complex interplay between health-compromising behaviours, physical health and mental health is crucial for promoting overall well-being. Research has shown that health-compromising behaviours such as smoking, excessive alcohol

consumption, worrying, poor diet, lack of physical activity and lack of stress management can significantly increase the risk of various illness including cardiovascular diseases.

These health compromising behaviours not only impact physical health but mental health too. Individuals who engage in such behaviours are more prone to encounter signs of distress, depression, anxiety and other mental health disorders. This could be due to the physiological effects of these behaviours on the brain as well as the psychosocial consequences such as social isolation and low self-esteem that in turn affect their physical health condition and non-adherence to treatment, which can threaten one's life.⁷

Along with improving physical health, adopting healthy lifestyle practices like consistent exercise, balanced diet, enough sleep and stress management techniques also improves mental and overall well-being. Regular exercise has been shown to boost mood, lower the symptoms of anxiety, depression and increase quality of life. In addition to providing the best physical, mental and social conditions possible a coordinated set of activities is needed to favorably influence the underlying cause of cardiovascular disease. This will allow patients to slow or reserve the progression of the disease through improved health behavior and with their own efforts, maintain or continue optimal functioning in their community. Individuals can lower their risk of developing a variety of health issues and enhance their overall health.⁸**National Institute of Health (2021)**

By promoting more health-enhancing behaviours among individuals such as exercise, balanced diet, stress reduction and quitting smoking there can be positive impact on the overall well-being of individuals with a specific health condition.

Understanding associations between these behaviours and quality of life can provide valuable insights for designing interventions to improve health outcomes by healthcare professionals and enhance individual's overall quality of life, prevent chronic diseases that ultimately contribute to improved public health and well-being.

By studying the effectiveness of health-enhancing behaviours, healthcare provider can identify strategies to promote healthier lifestyles. In this context the present study was undertaken.

II. MATERIALS AND METHODS

Research design: Descriptive correlational Study

Sampling technique: Convenience sampling

Sample size: A sample of 119 reported patients diagnosed with coronary heart disease was selected from accredited and multi-speciality hospitals within the Belagavi District by using Cochran's formula for sample size estimation.

Measure used: Psychological health scale (Part B) of P.G. I by N.N. Wig, S.K. Verma, and D. Pershad.

Procedure: After seeking approval and ethical clearance from J. N. Medical College Institutional Ethics Committee for Human Subjects' Research, Belagavi and permission from hospital authorities in Belagavi district, samples were selected conveniently from each hospital. Researcher met patients with prior notice and briefed about the study, Informed consent from participants was obtained after ensuring confidentiality and the questionnaire was handed along with instructions in English/ vernacular language and doubts (if any) were dealt and for the uneducated patients, the researcher read out the questions one by one and the responses were ticked accordingly in the given alternate columns. Later, the filled questionnaire forms were taken back and produced for scoring and analysis.

Analysis of Results: Percentage method and Independent t-test were used to assess the levels of psychological health among patients with coronary heart disease.

III. RESULTS AND DISCUSSION

Psychological health means a state of mental well-being where people are able to cope with stress, have satisfying relationships and adapt to life's challenges. It plays an important role in overall health, influencing behaviours such as exercise, diet and medication adherence, which impacts physical health outcomes. Mental health factors like anxiety and depression can disrupt daily life and impair coping mechanisms. Positive psychological traits, including resilience and optimism, contribute to better recovery and quality of life.⁹ **Carl Rogers (1961)**

Psychological health plays a significant role in overall health and wellbeing especially in management of CHD and its related emotional and mental health concerns. Stress, Anxiety and Depression are common in CHD patients and can worsen health conditions by triggering inflammatory responses and unhealthy behaviours like poor diet, binge eating, sleeplessness or smoking. Positive psychological well-being such as optimism and resilience have been linked to better recovery and reduced risk of future cardiac events. This highlights how crucial it is to incorporate psychological well-being into CHD management plans.¹⁰

A study by **Murphy et al. (2013)** supports the information by demonstrating the relationship between psychological distress and health-compromising behaviours in cardiac patients. It was found that higher rates of smoking, increased dietary fat intake, deprived sleep and reduced physical activity. These behaviours were linked to poorer psychological health and sociodemographic factors. The study underscores the importance of addressing mental health to promote healthier lifestyle choices among coronary heart disease patients.¹¹

Results of the study objective are presented in Table 1 and discussed as follow.

As per the given table, among total respondents, 33.61% patients showed poor psychological health, followed by 22.69% with extremely poor PH and 17.65% with average/moderate health; 11.76% of participants exhibited very good PH, while 8.40% showed very poor psychological health, 3.36% had extremely good health and 2.52% exhibited good health.

These findings support the results of previous research which revealed that many coronary heart disease (CHD) patients experience poor psychological health leading to a significant reduction in their overall quality of life. The study emphasized that depression and anxiety are prevalent among CHD patients, contributing to slower recovery rates and increased risk of recurrent cardiac events.¹² **Xu et al. (2023)**

The results of present study are also found in the similar line indicating poor PH for which, measures like practising and maintaining health enhancing behaviours, psychotherapy along with pharmacotherapy or present medication for cardiac disease along with counselling to the patient, family counselling must be given to enhance their PH, which is crucial in maintaining the quality of life and maintaining and enhancing their wellbeing. These results are represented in Graph 01.

In addition to the objective of the present study, researcher also studied whether a significant difference exist between male and female coronary heart disease patients with regard to psychological health and the results of the same are presented in Table No. 02.

Among the patients with CHD, some mental health concerns are seen in both male and female irrespective of the gender. Some of the studies showed that there exist PH issues in male and female with significant difference found.

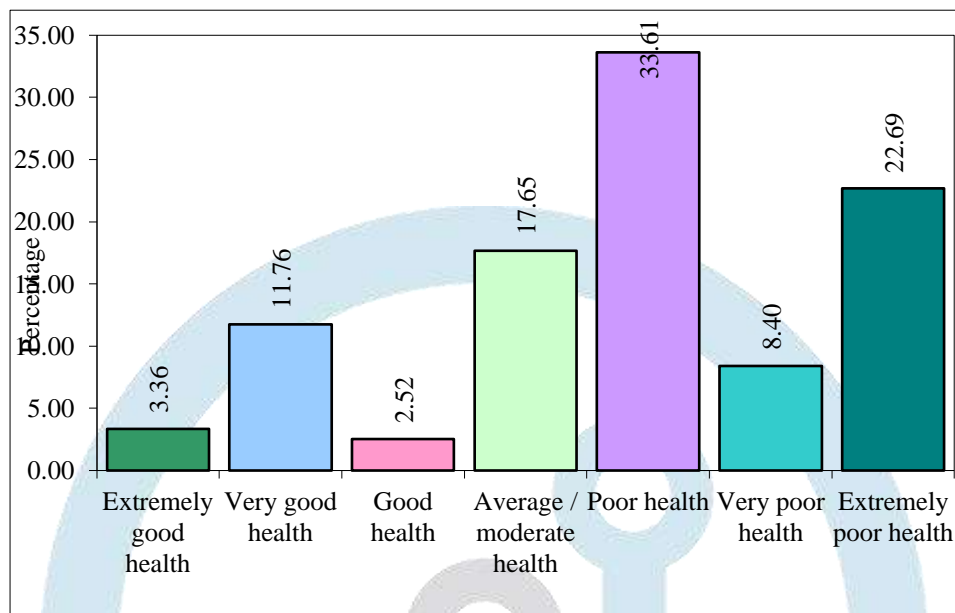
A study concluded that psychological factors are associated with Major Adverse Cardiovascular Events in both women and men with ischemic heart disease (IHD), with slightly higher risk observed in men. The study emphasized the need for more research to better identify sex and gender differences in IHD.¹³ **Smaardijk et al. (2020)**

In the present study also the researcher tried to find the answer for the question whether there exists a significant difference in psychological health between male and female patients with CHD. In reference with table No.02, it is observed that Males (n=84) obtained higher mean score of 26.82 than females (n=35) with a mean score of 20.97 where the Standard deviation (SD) for male is 9.78 and for female it is 9.12 with the mean difference of 5.85 and the calculated t value is 3.0302, which is significant at 0.003 level indicate that males and females differ greatly from one another related to psychological health. This clearly shows that female patients experience more psychological health issues than the males. This suggests that this population needs mental health services.

These results are presented in Graph 02.

TABLE 1: SHOWING THE LEVELS OF PSYCHOLOGICAL HEALTH AMONG PATIENTS WITH THE CORONARY HEART DISEASE.

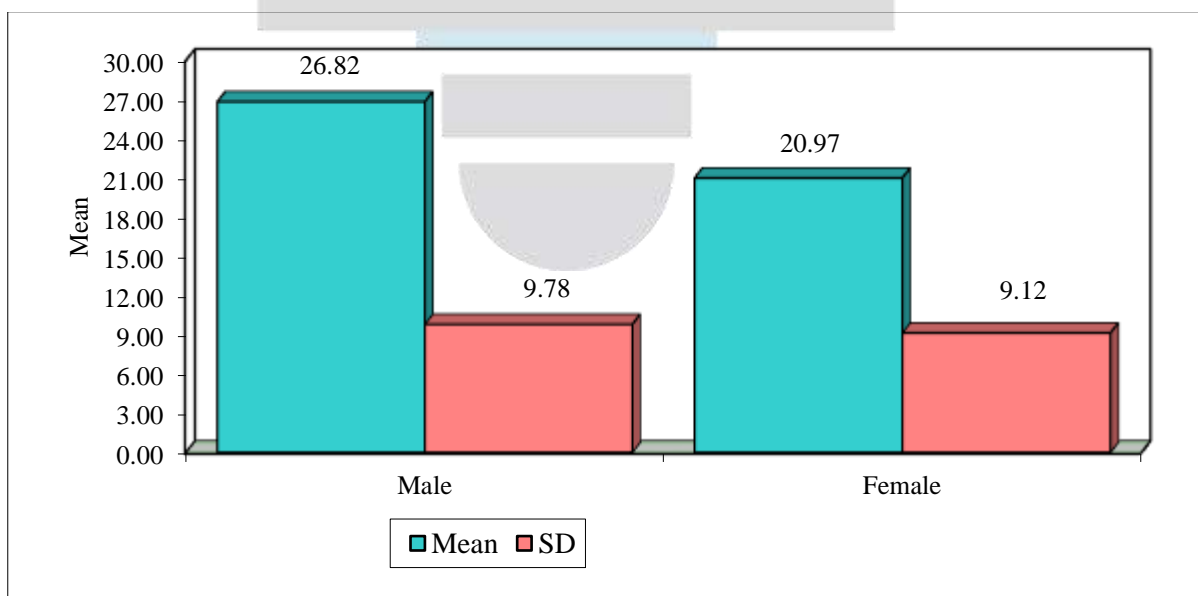
LEVELS	NUMBER	%
EXTREMELY GOOD HEALTH	4	3.36
VERY GOOD HEALTH	14	11.76
GOOD HEALTH	3	2.52
AVERAGE / MODERATE HEALTH	21	17.65
POOR HEALTH	40	33.61
VERY POOR HEALTH	10	8.40
EXTREMELY POOR HEALTH	27	22.69
TOTAL	119	100.00



Graph 01: Showing the levels of Psychological Health of Patients with CHD.

Table 02: Showing comparison of male and female CHD patients on Psychological Health.

Gender	n	Mean	SD	SE	t-value	P-value
Male	84	26.82	9.78	1.07	3.0302	0.0030*
Female	35	20.97	9.12	1.54		



Graph 02: Showing comparison of male and female CHD patients on Psychological Health.

IV. CONCLUSION

1. Patients with CHD had poor level of psychological health.
2. There exists a significant difference in psychological health between male and female patients with CHD

V. LIMITATIONS OF THE STUDY

1. Study was undertaken only in Belagavi district with a small sample size.

SUGGESTIONS

1. Additional research including patients with different types of cardiac issues can be conducted and replicated with larger samples and geographical areas.
2. To understand more about their subjective experiences, further much qualitative research must be conducted.
3. Providing stress management strategies, lifestyle modification guidance, awareness programme and Psychoeducation materials can be beneficial.

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Conflicts of interest – none declared

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REFERENCES

1. Psycho health World Health Organization. (2004). *Promoting mental health : concepts, emerging evidence, practice : summary report*. World Health Organization, Cop.
2. *Chronic stress puts your health at risk*. (2024). Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress/art-20046037?utm>
3. Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behaviour*, 43(2), 207–222. <https://doi.org/10.2307/3090197>
4. Fan, Y., Ho, M. R., & Shen, B. (2022). Loneliness predicts physical and mental health-related quality of life over 9 months among patients with coronary heart disease. *Applied Psychology: Health and Well-Being*. <https://doi.org/10.1111/aphw.12403>
5. Yeni Koto, Santhna Letchmi Panduragan, Poddar, S., None Solehudin, Agus Purnama, & Saldi Susaldi. (2024). The Influence of Anxiety, Self-Efficacy, and Quality of Life in Coronary Heart Disease Patients. *The Malaysian Journal of Nursing*, 15(04), 118–127. <https://doi.org/10.31674/mjn.2024.v15i04.014>
6. Koronka, P. (2025, January 3). *Loneliness linked to heart disease, strokes and infections*. The Times. <https://www.thetimes.com/uk/healthcare/article/loneliness-linked-to-heart-disease-stroke-and-infections-79x0d2rk9?utm>
7. Taylor, S. E. (2006). *Health Psychology*. McGraw-Hill Humanities, Social Sciences & World Languages.
8. NIH. (2021, December 29). *The Science Behind the DASH Eating Plan* / NHLBI, NIH. [www.nhlbi.nih.gov](https://www.nhlbi.nih.gov/education/dash/research). <https://www.nhlbi.nih.gov/education/dash/research>
9. Rogers, C. R. (1961). *On Becoming a Person: A Therapist's View of Psychotherapy*. Houghton Mifflin.

10. Boehm, J. K., & Kubzansky, L. D. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin*, 138(4), 655–691. <https://doi.org/10.1037/a0027448>
11. Murphy, B. A., Le, M. R., Navaratnam, H. S., Higgins, R. D., Elliott, P., Turner, A., Rogerson, M., Marian U.C. Worcester, & Goble, A. J. (2012). *Are poor health behaviours in anxious and depressed cardiac patients explained by sociodemographic factors?* 20(6), 995–1003. <https://doi.org/10.1177/2047487312449593>
12. Xu, W., Fang, L., Bai, H., Ke, K., Li, W., Huang, H., Liang, X., & Chen, C. (2023). The influence of psychological factors on coronary heart disease: A review of the evidence and implications for psychological interventions. *Medicine*, 102(27), e34248. <https://pubmed.ncbi.nlm.nih.gov/37417641/>
13. Smaardijk, V. R., Maas, A. H. E. M., Lodder, P., Kop, W. J., & Mommersteeg, P. M. C. (2019). Sex and gender-stratified risks of psychological factors for adverse clinical outcomes in patients with ischemic heart disease: A systematic review and meta-analysis. *International Journal of Cardiology*. <https://doi.org/10.1016/j.ijcard.2019.12.014>

