

## ORIGINAL ARTICLE

**Gender Differences in Ways of Coping among Cardiovascular Disease's Patients**HAMID MEHMOOD<sup>1</sup>, AMINA MUAZZAM<sup>2</sup>, MIRRAT GUL BUTT<sup>3</sup>, BUSHRA JABEEN<sup>4</sup>, GUL ZAREEN<sup>5</sup>, SHAMILA AFSHAN<sup>6</sup><sup>1</sup>Assistant Professor, Community Medicine, Sahara Medical College, Narowal<sup>2</sup>Department of Applied Psychology Lahore College for Women University<sup>3</sup>Senior Clinical Psychologist, Punjab Institute of Cardiology<sup>4,5</sup>Lahore School of Management, University of Lahore<sup>6</sup>Punjab Institute of Cardiology, LahoreCorrespondence to: Dr. Hamid Mehmood, Cell No : 0333-4195250 Email : [drhamidmehmood56@gmail.com](mailto:drhamidmehmood56@gmail.com)**ABSTRACT**

This study explores the coping ways of the patients suffering from cardiovascular disease (CVD). Six diagnosed patients participated in the study; they were 3 men and 3 women. A detailed semi structured interview was conducted. For this qualitative research the sample was taken from the Cardiology departments of Civil Hospital, Sahiwal and Ittefaq Trust Hospital, Lahore, Punjab. The Interpretive Phenomenological Analysis (IPA) method was applied to analyze the results. It was found that male patients use more problem focused coping and emotion based coping, whereas the female patients limit their ways of coping and use avoidance, denial, and prefer to cope with their disease alone.

**Keyword:** CVD (cardiovascular diseases.) coping strategies,

**INTRODUCTION**

Every individual would like to live a healthy life but there are some diseases which cause life threatening situations, cardiovascular diseases (CVD) is one of them. It is a high risk disease which could occur at any age, in Pakistan, 30 to 40 per cent of all deaths are due to cardiovascular diseases (CVD). The CVD death in Pakistan has reached about 200,000 per year that is 410/100,000 of the population (JPMA, 2011). In Pakistan it is estimated that one in four adults suffer from CVD. Risk factors include smoking, high blood pressure (HBP), raised cholesterol, and being overweight <sup>1</sup>

Cardiovascular diseases (CVD) are disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, and rheumatic heart disease and other conditions. Four out of five CVD deaths are due to heart attacks and strokes. <sup>2</sup>

Diabetes mellitus, unhealthy diets, obesity, smoking, abnormal blood lipids and blood pressure are the main modifiable risk factors for CVD. Apart from these modifiable risk factors, depression, stress, use of medications, use of alcohol and lipoprotein are also risk factors for CVD. <sup>3</sup> There is strong evidence that exercise improves cardiovascular-related mortality. <sup>4</sup>

This research not only focuses on the general ways of coping but specifically studies the difference in the ways of coping between men and women. Furthermore, this research is being carried out in the area of Punjab, Pakistan where such research has never been conducted before. Hence, it will show how the ways of coping are affected by social and cultural differences, and to model them so that to bring awareness in the people about the benefits of adopting a healthy cardiac coping and lifestyle.

**Scientific Objective:** This study would connect into the prior literature regarding the ways of coping in diagnosed CVD patients.

**Social Objective:** Through the present study people would get more awareness about CVD and its patient's ways of coping in their daily life.

**Literature Review:** A study showed that people with chronic heart diseases use four types of coping mechanisms to deal with their stress, they use avoidance, disavowal, denial and then acceptance, as it could bring hope in their life and delay their hopelessness. <sup>5</sup> Another study showed that people became more problem-solving-oriented to reduce their stress like by avoidant behaviour may involve behavioral disengagement, denial, and substance use which helps them to distract from their problems and avoids thinking about the stressful situation. Socially supported coping reduces the chances of depression by providing instrumental, emotional, tangible, and appraisal support. Lastly, emotion-focused coping includes positive reframing, acceptance, humor, and religion which also plays a role in reducing stress and providing motivation for the patient. <sup>6</sup>

Other than these ways, some positively healthy and adaptive ways include optimistic coping, active coping, positive reappraisal <sup>7,8</sup>. In a comparative study for 30 patients with bypass surgery during six months, people were divided into two groups-experimental and control. For the experimental group, effective coping ways that included stress management, anger management, and coping with anxiety and depression were introduced and they were trained individually, the results showed significant difference in mental health between the experimental group from the control group. <sup>9</sup> The Mayo Clinic staff (2014) provides three main ways of coping with cardiovascular diseases: cardiac rehabilitation, support groups, and continued medical check-ups. Cardiac rehabilitation involves levels of monitored exercise, nutritional counseling, emotional support, and support and education about lifestyle changes to reduce the patient's risk of heart problems. <sup>10</sup> This might prove to be more hopeful and motivating for them relieving their anxiety and fear which just puts them at greater risk.

Penninx et al,(1998) and Milaniak et al (2016) study proved that patients can cope by having a partner, close relationships; greater feelings of mastery, greater self-efficacy expectations, and high self-esteem have direct

favorable effects for depression.<sup>11,12</sup> Following discharge from rehabilitation cardiac patients are also encouraged to engage in regular physical exercise as a coping mechanism.<sup>13</sup> Lifestyle changes are a major goal in the rehabilitation of coronary heart disease.<sup>14,15</sup> The major risk factors are tobacco use, alcohol use, high blood pressure, high cholesterol, obesity, diabetes, physical inactivity, stress, and an unhealthy diet. "The more risk factors you have the greater is the likelihood that you will suffer heart disease unless you take action to modify your risk factors and work to prevent them compromising your health. Gender differences in coping strategies are how men and women differ in managing psychosocial stress. There is evidence that males often develop stress due to their careers, whereas females often encounter stress due to issues in interpersonal relationships.<sup>16</sup> Early studies indicated that "there were gender differences in the sources of stressors, but gender differences in coping were relatively small after controlling for the source of stressors".<sup>17</sup> More recent work has similarly revealed "small differences between women's and men's coping strategies when studying individuals in similar situations".<sup>18</sup>

**Research Questions**

**Main Research Question**

Main research question is

- How CVD patients cope with their disease?

**Sub-Questions**

- What are the ways of coping in CVD patients?
- How male CVD patients cope with their disease?

- How female CVD patients cope with their disease?

**METHOD**

**Research Design:** Qualitative research design was used to explore the ways of coping in CVD patients.

**Research Method:** Semi structured interview method was used for collection of data.

**Sampling Strategies:** Non probability purposive sampling strategy was used to obtain the sample.

**Data collection Process:** The sample was comprised of six adult diagnosed patients of CVD (three males and three females) from Cardiac department, Civil Hospital Sahiwal Punjab and Cardiac department, Ittefaq Hospital Trust Lahore Punjab. Semi structured interviews were conducted in order to obtain information from the participants in a peaceful environment. This study was conducted from June 2016 to August 2016. A special form was used to collect the information from patients including medical records, age, sex and socioeconomic status as well. Open-ended questions were used for the interview.

**Mode of Analysis:** Interpretive Phenomenological Analysis was used as a mode of analysis. Semi structured interviews were conducted and analyzed qualitatively.

**Ethical Consideration:** After taking the consent from the patients, the purpose of the research was explained to them. They were assured that their identity and information will be kept confidential. The participants were not forced to share information they were not comfortable with.

**RESULTS**

	Major Theme	Sub Theme
1.	Coping ways in patients	<ul style="list-style-type: none"> <li>• Seeking best medical care/consultation,</li> <li>• following doctors' advice by taking medicine regularly,</li> <li>• acceptance of illness,</li> <li>• increased self-monitoring-control,</li> <li>• precautionary measures e.g. quit smoking</li> <li>• Self-monitoring diet control (avoiding rich, spicy and oily food)</li> <li>• religion(offering prayers regularly, Having strong belief on Allah that he will mercy on us and give health</li> <li>• family support and proper care by them</li> <li>• positive attitude/being optimistic</li> <li>• talking about the problem,</li> <li>• gaining knowledge of the disease</li> </ul>
2.	Coping ways in Males	<ul style="list-style-type: none"> <li>• Optimistic coping strategy,</li> <li>• strict medical compliance, following doctors 'advices,</li> <li>• diet and self-control,</li> <li>• quit smoking,</li> <li>• exercise,</li> <li>• family support</li> <li>• Practicing religion/Having faith in God</li> <li>• positive and hopeful attitude</li> <li>• gaining information about illness to be confident</li> </ul>
3.	Coping ways in Females	<ul style="list-style-type: none"> <li>• Avoidance to talk about illness</li> <li>• Denial about health condition</li> <li>• diet control,</li> <li>• Not sharing with others,</li> <li>• seeking medical,</li> <li>• non-medical and homeopathic care,</li> <li>• social support</li> </ul>

## DISCUSSION

A qualitative research was conducted to compare the ways of coping of CVD patients both males and females. The theme of the ways of coping in male CVD patients shows that their ways of coping are more towards a positive direction. Although most of the male samples described an initial reaction of denial and fear, they were quick to adopt a problem focused coping attitude. This included having a more positive outlook, and accepting their condition with the aim of improving their condition. They made no compromises when it came to medical care, and wanted the best doctor's treatment. They followed the doctors' advices strictly, took their medicines regularly, and showed a great level of self-control by changing their diet and daily routine. All the male participants in the research also reported that they quit smoking as a way of coping, avoided oily and rich foods, and took up exercise as a way of coping as they saw their condition improving by it. Previous researches, as mentioned above also talk about how problem focused coping improves their health by trying to solve the problem.<sup>19</sup> Their positive and problem solving attitude can also be seen, as the participants expressed their effort in gaining full knowledge about their disease, so that they themselves know the risks, effects, and treatment. A participant said:

"I read up on all about my condition- the risks, effects, symptoms etc. I asked every possible question from every doctor I consulted. I wanted to be fully aware about what I was dealing it. The more I knew, the more confident I felt that I could handle it".

This shows that they had overcome their initial state of fear and now were confident enough to handle the disease. The male participants were also more inclined towards emotion based coping, which largely includes family support, and spirituality e.g. offering prayer regularly and having strong belief on Allah. Although there were no fixed answers to whether they talked and discussed their health and feelings with their family and friends, they still received and were dependent on the emotional support they got in the form of care, love, attention, and people who accompanied them to physician's appointments, kept a watch on their diet, and gave constant reminders that they need to take care of themselves. This gave them more hope, relieved their stress, and made them have a more optimistic and positive attitude. All the male participants mentioned religion and turning towards God for guidance, help, and miracles as a major way of coping. A participant said: "After my attack I turned towards Allah for help and guidance. I feel at peace now that I have left everything at Gods will."

Research supports this case as emotion based coping has been found to greatly reduce anxiety, stress, and depression which occurs quite often in CVD patients.<sup>20</sup> While the responses of females revealed that they had a less positive process of coping by showing the coping strategies of avoidance, disavowal, and denial.<sup>21</sup> The females were either in denial, and did not want to make major changes in their life or even if they were aware of the risks of their disease, they chose to keep their treatment and process of coping limited. The females took their medicines regularly, and made slight changes to their diet

like avoiding oily food, but they did not make regular check-up visits to the doctors and only did so if there were any major problems.

The females were less likely to exercise, and none of them mentioned religion, or turning to God as a way of coping. Furthermore, females showed that they actually avoided talking about or even showing that they were sick or were in pain. Due to this, there was a low level of emotion and family support as the females tried not to make their health issues a cause of burden and distress to the rest of their family. A participant said: "I tried to hide my pain and act brave as much as possible. I did not want to become a burden on my family and allow anyone to question my ability to be a good mother and wife. The time and money spent on my treatment and I could be put to better use."

## CONCLUSION

It was seen in the research that the sample taken from the area of Punjab, Pakistan shows a significant difference in the coping ways of males and females. There has been a combination of problem focused coping and emotion based coping in both the genders, but on different levels. Men have a more positive way of coping where they do everything that they can seek proper medical care, regular check-ups, precautions, self-control, diet control, family and emotional support, sharing their problems, acceptance, exercise, turning to religion for guidance. They are also dependent on the attention, care and emotional support they receive from their family and friends. Hence, male patients show less signs of anxiety and depression.

However, the coping ways of females are limited to a certain extent, because of which their process of coping is not as positive and involves denial, and avoidance. They will take medicines, and control their diet, but will not exercise as much or come for regular check-ups. The results show the reason for this may largely be because of the society and families these female participants belong to, as they avoid showing their own problems and pain to not become a burden and distress on their families in terms of time and resources. They suppress their own problems as they feel that they should be the ones to take care of the home and family and not the other way around as they are the women and it is their job. Because of this they often lack emotional support too as they avoid discussing any type of medical problems. Female participants also did not talk about religion as an emotion based coping as opposed to the male participants.

### Implication of the Study

- This study would be helpful to know the coping ways of CVD patients regarding their illness as well as with the reference of their gender.
- It inquires difference among people using coping strategies living in different areas.
- It would be helpful for those researchers who want to do work on this subject in the future.

**Limitations and Suggestions:** The theme of the study adopted a positive approach, as the respondents were only asked to recall their achievement in coping with their illness.

- The participants might have not given accurate answers to make they look better in front of the interviewer, and might exaggerate their ways of coping- Hawthorne effect.
- The significance of the findings of this study is predictable and it might serve as a foundation for further studies.

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## REFERENCES

1. Jafar, T., Jafary, F., Jessani, S., &Chaturvedi, N. (2005). Heart disease epidemic in Pakistan: women and men at equal risk. *American Heart Journal*, 150(2), 221-226.
2. World Health Organization,(2014). GLOBAL STATUS REPORT on Noncommunicable Diseases. Switzerland: WHO Press. Retrieved from [http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/148114/1/9789241564854_eng.pdf)
3. Beaglehole, R. (1990). International trends in coronary heart disease mortality, morbidity, and risk factors. *Epidemiologic Reviews*, (12), 1-15.
4. Lazarus, R. S., Cohen, J. B., Folkman, S., Kanner, A., & Schaefer, C. (1980) Psychological Stress and Adaptation: Some Unresolved Issues. In Selye, H. (Ed) *Selye's Guide to Stress Research*.Vol. 1. New York: Van Nostrand Reinhold Company.
5. Brannon, L. & Feist, J. (2009). *Health Psychology: An Introduction to Behavior and Health* (7th ed., pp. 121-125). Wadsworth: Cengage Learning
6. Nahlen Bose, C., Bjorling, G., Elfstrom, M., Persson, H., &Saboonchi, F. (2015). Assessment of Coping Strategies and Their Associations With Health Related Quality of Life in Patients With Chronic Heart Failure: the Brief COPE Restructured. *Cardiology Research*, 6(2), 239-248. <http://dx.doi.org/10.14740/cr385w>
7. Martz, E. &Livneh, H. (2007). *Coping with Chronic Illness and Disability*. New York: Springer.
8. Ransom, S., Jacobsen, P., Schmidt, J., &Andrykowski, M. (2005).Relationship of Problem-Focused Coping Strategies to Changes in Quality of Life Following Treatment for Early Stage Breast Cancer. *Journal Of Pain And Symptom Management*, 30(3), 243-253.
9. Pashaki, M., Molaei, A., Yaghoubi, A., &Bagheri, B. (2015).Impact of Training the Coping Effective Styles with Negative Emotions on Coping Strategies of Cardiac Surgical Patients. *Journal Of Educational And Management Studies*. Retrieved from [http://jems.science-line.com/attachments/article/28/J.%20Educ.%20Manage.%200Stud.,%205\(1\)%2001-05,%202014.pdf](http://jems.science-line.com/attachments/article/28/J.%20Educ.%20Manage.%200Stud.,%205(1)%2001-05,%202014.pdf)
10. <http://www.mayoclinic.org/diseases-conditions/heart-disease/basics/coping-support/con-20034056>
11. Penninx, B., van Tilburg, T., Boeke, A., Deeg, D., Kriegsman, D., & van Eijk, J. (1998). Effects of social support and personal coping resources on depressive symptoms: Different for various chronic diseases?. *Health Psychology*, 17(6), 551-558. <http://dx.doi.org/10.1037/0278-6133.17.6.551>
12. Milaniak, I., Wilczek-Ruzyczka, E., Wierzbicki, K., Sadowski, J., Kapelak, B., &Przybyłowski, P. (2016). Role of Personal Resources in Depression and Stress in Heart Transplant Recipients. *Transplantation Proceedings*, 48(5), 1761-1766. <http://dx.doi.org/10.1016/j.transproceed.2016.01.080>
13. Sniehotta, F., Scholz, U., &Schwarzer, R. (2006). Action plans and coping plans for physical exercise: A longitudinal intervention study in cardiac rehabilitation. *British Journal Of Health Psychology*, 11(1), 23-37. <http://dx.doi.org/10.1348/135910705x43804>
14. Sniehotta, F., Schwarzer, R., Scholz, U., &Schüz, B. (2005). Action planning and coping planning for long-term lifestyle change: theory and assessment. *European Journal of Social Psychology*, 35(4), 565-576. <http://dx.doi.org/10.1002/ejsp.258>
15. Graven, L., Grant, J., Vance, D., Pryor, E., Grubbs, L., &Karioth, S. (2014). Coping styles associated with heart failure outcomes: A systematic review. *Journal Of Nursing Education And Practice*, 227-242.
16. Davis, M., Matthews, K., &Twamley, E. (1999). Is life more difficult on mars or venus? A meta-analytic review of sex differences in major and minor life events. *Annals Of Behavioral Medicine*, 21(1), 83-97. <http://dx.doi.org/10.1007/bf02895038>
17. Billings, A. & Moos, R. (1981).The role of coping responses and social resources in attenuating the stress of life events. *Journal Of Behavioral Medicine*, 4, 139-157.
18. Carver, C. (2010). *The Handbook of Stress: Science Biology, Psychology, and Health* (pp. 220-229). Springer Publishing Company.
19. Lazarus, R. S. (1993) *Coping Theory and Research: Past, Present, and Future*. In *Psychosomatic Medicine*. 55: 234-247.
20. Khayyam-Nekouei Z, Neshatdoost H, Yousefy A, Sadeghi M, Manshaee G. Psychological factors and coronary heart disease. *ARYA atherosclerosis*. 2013 Jan;9(1):102.
21. Buetow S, Goodyear-Smith F, Coster G. Coping strategies in the self-management of chronic heart failure. *Family Practice*. 2001 Apr 1;18(2):117-22.
22. 304-310. <http://dx.doi.org/10.1007/s11920-008-0049-7>
23. Pfeifer, P., Ruschel, P., &Bordignon, S. (2013). Coping strategies after heart transplantation: psychological implications, 28(1), 61-68. <http://dx.doi.org/10.5935/1678-9741.20130010>