ORIGINAL ARTICLE

PREDICTORS OF QUALITY OF LIFE AND RESILIENCE AMONG OUTPATIENTS WITH HEART DISEASES

SUBHA MALIK[1], NADIA AFZAL[2]
[1]Assistant Professor, Department of Gender & Development Studies, Lahore College for Women University, Lahore.
[2]Lahore College for Women University, Lahore.

Correspondence: SUBHA MALIK, E-mail:subhamalik@yahoo.com

ABSTRACT

OBJECTIVES
The purpose of this study was to explore the factors which affect the quality of life among patients with heart disease. The role of resilience and gender differences in patients with heart disease were also investigated.

STUDY DESIGN
Survey Research design

PLACE & DURATION OF STUDY
Present study was conducted in the outpatient of the cardiac wards of three major hospitals of Lahore. Data was collected from March to May 2015.

SUBJECTS AND METHOD
A total of 461 outpatients with heart disease from three major hospitals of Lahore were assessed by using purposive convenience sampling technique. Quality of life was assessed through World Health Organization Quality Of Life- brief (WHOQOL-BRIEF) scale. To assess resilience, Conner-Davidson Resilience Scale 10 (CD-RISC-10) was used.

RESULTS
Among the significant predictors for Quality of life of patients with heart disease were resilience, education, income and age. Further analysis proved male heart patients to be more resilient than female heart patients.

CONCLUSION
It is concluded that Quality of life of patients with heart disease can be improved by increasing education and resilience. Providing better educational facilities, enhancing resilience and a supportive income structure will ensure improved health outcomes.

KEYWORDS
Quality of Life, Resilience, Heart Disease, Education

INTRODUCTION

Heart disease affect millions of people world wide, among these Coronary Heart Disease (CHD) is the commonest[1]. CHD and stroke is the leading cause of death in developing countries[1,2]. Population of India and Pakistan is at the highest risk of developing Coronary Artery Disease in the world, women are more likely to develop ischemic heart disease than men whereas males are at a greater risk to develop coronary artery disease[3].

World Health Organization describes quality of life as an individual's self-perception about their place, position, and status in context of culture and society in which they live and how well their goals, standards and demands meet with their expectations. It is a multi-dimensional concept that is affected by the one's physical and psychological health, personal beliefs, degree of independence and their social relationships[4].

Chronic diseases often affect the quality of life of individuals. The assessment of the quality of life of individuals with chronic diseases provides valuable information of all spheres of life which indicates the success of any treatment and adds significantly to the medical science[5]. Studies have found contrasting results in adults with congenital heart disease; some found QOL of these patients lower than general population while others found higher QOL[6,7]. Other studies have shown deteriorated quality of life in individuals with Congestive Heart Failure (CHF)[8], Cardio Vascular Disease (CVD) patients[9], and patients with Chronic obstructive pulmonary disease and heart disease[10]. A study showed that increasing physical activity, medication adherence and control of risk factors were positive predictors of HRQOL in individuals with CVD[11].

Resilience refers to the person's ability and capacity to cope with stressful situation and successfully regain control of mental state after confronting adverse situation[12]. Resilience has proved to be beneficial in coping and better recovery from heart disease; trait resilience was negatively associated with cardiovascular reactivity. Study revealed that resilient people had better recovery from CVD than less resilient people[13,14].

Very few researches have been done to detect the predictors of Quality of life in individuals with heart diseases in Pakistan. Therefore present study aimed to detect the determinants of quality of life in individuals with heart disease in Pakistan. It also aimed to assess the gender differences in the level of resilience and quality of life of individuals with heart disease. Objectives of the study are to access

demographic variables and resilience as a predictor of quality of life for individuals with heart disease, and to determine the gender difference in resilience in

individuals with heart disease.

METHODOLOGY

PARTICIPANTS

Total 461outpatients with heart disease were assessed from three major hospitals of Lahore by using purposive convenience sampling technique. It included both males (n= 298) and females (n= 164) age ranges 28 to 70 years old (M=47, SD=7.02).Survey research design was used. Individuals who had any other physical and psychological illness were excluded from the study.

INSTRUMENTS

Self-prepared demographic form was used to obtain demographic information such as age, gender, marital status, socioeconomic status, and education.

World Health Organization Quality Of Life- brief (WHOQOL-BRIEF)
It was developed by World Health Organization (WHO) in 1997. It consists of 26 items. It covers different domains of life (e.g. physical, psychological, social relationship, and environment).[15]

Conner-Davidson Resilience Scale 10 (CD-RISC-10)
It was the short version of original Conner-Davidson Resilience Scale developed by Drs. Campbell-Sills and Stein. Its score ranges from 0-40.[16]

PROCEDURE

Medical Superintends and Head of Cardiology department were approached to obtain permission to collect data. After taking permission respondents were properly informed about the research project and informed consent was taken. They filled the demographic, resilience and quality of life instruments and were guided properly by the researcher whenever they had difficulty in understanding any item. Keeping in view the ethical considerations severe patients with heart problem were excluded from sample. After that obtained data were entered in SPSS 17 version and multiple regression analysis and t-test was carried out.

RESULTS

Results of multiple regression showed that education, age, resilience and income all significantly predict the quality of life in outpatients with heart disease R2= .332, F(4,456)=56.53, p=.000. Income was the strongest of all predictors of quality of life in patients with heart disease, .36, t (457) =8.54, p=.000. Resilience was also a significant predictor of quality of life in patients with heart disease,.25, t (457) =6.23, p=.000 as was education .10, t (457) =2.40, p=.01. Age explained 13% variance in quality of life in patients with heart disease, -.13, t (457) =-3.25, p=.001; as age increases quality of life decreases. (See table 1)

Table 1:
Table shows the predictors of quality of life in individuals with heart disease

Variables	Quality of life		
	B	SE B	β
Age	-.32	.10	-.13
Education	1.05	.43	.10
Income	4.24	.49	.36
Resilience	.57	.09	.25
Total R^2	.33*		

*P<.05**

Results showed significant gender differences on resilience t (460) =5.57, p=.000. Male heart patients (M=29.32, SD=7.26) were more resilient than female heart patients (M=25.26, SD=7.87).

Table 2:
Table shows Gender Differences in Resilience

	Sex						95% CI for Mean Difference		
	Male			Female					
	M	SD	n	M	SD	n		t	df
Level of resilience	29.32	7.26	298	25.26	7.87	164	2.62, 5.49	5.57	460

DISCUSSION

Results showed that income, resilience, education and age were significant predictors of quality of life in individuals with heart disease; these findings are supported by previous literature. A study explored some demographic features were negatively associated with HRQOL such as female gender, increasing age and low educational levels. Basic findings showed that increasing physical activity, medication adherence and control of risk factors was positive predictor of HRQOL in individuals with CVD[11].

Results showed that income was the strongest predictor of quality of life in individuals with heart disease. Some previous studies revealed that age, duration of heart failure, physical symptoms, depression and low socioeconomic status were important predictor of HRQOL in individuals with heart disease[13,14]. Importance of socioeconomic status as a predictor of quality of life is universal especially in developing countries like Pakistan. As increased income makes it possible to access necessities, health care services, adherence to treatment and better food intake that ultimately increase the quality of life of masses.

Results also showed that resilience and education are significantly associated with quality of life. Early literature supports these findings. Resilience proved to be beneficial in coping and better recovery from heart disease as resilient people had the capacity and ability to bounce back from the stressful situation that ultimately enhances the overall quality of life. Trait resilience was negatively associated with cardiovascular reactivity. Study revealed that resilient people had better recovery from CVD than less resilient people[23,24]. This study revealed that age is negatively associated with quality of life. As the age increases, quality of life decreases proving that young age was

associated with better quality of life[15]. Old age usually brings different problems such as restricted mobility, different physical and mental anomalies, low metabolism, decreased functioning of immune system and other psychosocial problems that decrease quality of life of individuals with heart disease.

Males are more resilient than females. One of the reasons in Pakistani scenario would be the patriarchal society where men have more power, authority, autonomy and importance than females that makes them strong in taking decisions and to resist and deal with the critical situations of life.

CONCLUSION

The study concluded that Quality of life of patients with heart disease can be improved by increasing education and resilience. Other factors supporting health outcomes were income and age. Providing better educational facilities, enhancing resilience and a supportive income structure will ensure improved health outcomes.

Medical professionals can emphasize the importance of resilience to their patients, encouraging them to change maladaptive behaviors which increase risk for disease. New initiatives at local community levels can teach positive life practices and support facilitating programmes for education. Longitudinal studies to advance knowledge of resilience are recommended.

Suggestions

- Resilience and demographic features were detected in present study; other important variable can also be assessed associated with quality of life in patients with chronic diseases such as social support, treatment adherence, exercise, stigma and others.
- Resilience is an important predictor of quality of life in individuals with heart disease. Programs, workshops, TV shows, and seminars can be conducted to create awareness in the general population about the importance of resilience.

REFERENCES

1. Maier R. Heart disease statistics. 2014. Retrieved from http://www.healthline.com/health/heart-disease-infographic.
2. What are heart disease and stroke? 2012. American Heart Association. Retrieved from http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/documents/downloadable/ucm_300313.pdf.
3. Jafar TH, QadriZ, Chaturvedi N. Coronary artery disease epidemic in Pakistan: more electrocardiographic evidence of ischaemia in women than in men. Heart. 2007; 94(4), 408-413. doi: 10.1136/hrt.2007.120774.
4. World Health Organization. 1997. WHOQOL Measuring Quality of Life, Retrieved from http://www.who.int/mental_health/media/68.pdf
5. Guyatt GH, Pitt B. Part IV: Assessment of Clinical Outcome in Heart Failure, J Am CollCardiol. 1993; 22(4), 185-191. doi: 10.1016/0735-1097(93)90488-M
6. Lane DA, Lip GY, MillaneTA.Quality of life in adults with congenital heart disease. Heart. 2002; 88 (1), 71-75. Retrieved from http://www.ncbi.nlm. nih.gov/pmc/articles/PMC1767157/
7. Silva AM et al. Quality of life of patients with congenital heart diseases. Cardiol Young. 2011; 21(6).670-676.doi:10.1017/S1047951111000576.
8. Juenger J et al. Health related quality of life in patients with congestive heart failure: comparison with other chronic diseases and relation to functional variables. Heart. 2002; 87 (3), 235-241. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1767036/
9. O'neil A et al. The health-related quality of life burden of co-morbid cardiovascular disease and major depressive disorder in Australia: findings from a population-based, cross-sectional study. Qual Life Res. 2013; 22(1):37-44. doi: 10.1007/s11136-012-0128-4.
10. Miguel-Diez JD, et al. The influence of heart disease on characteristics, quality of life, use of health resources, and costs of COPD in primary care settings. BMC Cardiovascular Disorder. 2010; 10(8).doi: 10.1186/1471-2261-10-8.
11. Ludt S, et al. Predictors of Health-Related Quality of Life in Patients at Risk for Cardiovascular Disease in European Primary Care. PLOS. 2011; doi: 10.1371/journal.pone.0029334.
12. Hjemdal O. Measuring Protective Factors: The Development of Two Resilience Scales in Norway. Child Adolescents Psychiatric Clinics of North America. 2007; 16,303-321.doi: 10.1016/j.chc.2006.12.003
13. Tugade.M, Fredrickson BL, Barrett LF. Psychological Resilience and Positive Emotional Granularity: Examining the Benefits of Positive Emotions on Coping and Health. J pers. 2004; 72 (6), 1161-1190.doi: 10.1111/j.1467-6494.2004.00294.x
14. Chan IW, Lai JC, Wong KW. Resilience is associated with better recovery in Chinese people diagnosed with coronary heart disease. Psychology and Health. 2007; 21 (3), 335-349. Retrieved from http://www.tandfonline.com /doi/abs/10.1080/14768320500215137#.VaPERV9Viko
15. Skevington SM, Lofty M, O'Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: Psychometric properties and results of the international field trial A Report from the WHOQOL Group. Quality of Life Research. 2004; 13,299–310.Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.463.2578&rep=rep1&type=pdf
16. Campbell-sills L, Stein MB. Psychometric Analysis and Refinement of the Connor–Davidson Resilience Scale (CD-RISC): Validation of a 10-Item Measure of Resilience. Journal of traumatic Stress. 2007; 20(6), 1019-1028. doi: 10.1002/jts.
17. Hwang SL, Liao WC, Huang TY. Predictors of quality of life in patients with heart failure. Japan Journal of Nursing Science. 2014; 11(4), 290-298. doi: 10.1111/jjns.12034
18. Gott M. et al. Predictors of the quality of life of older people with heart failure recruited from primary care. Age Aging. 2006; 35 (2), 172-177. Retrieved from http://ageing.oxfordjournals.org/content/35/2/172.short
19. Soriano N. et al. Improvements in Health-Related Quality of Life of Patients Admitted for Heart Failure. The HF-QoL Study. RevEspCardiol. 2010; 63(6), 668-676.doi: 10.1016/S1885-5857(10)70141-9.