

ORIGINAL ARTICLE

Effectiveness of Family-oriented Education on Self-care behaviors of Patients with Acute Myocardial Infarction: A Randomized Clinical Trial

Zahra Molazem¹, PhD; Elham Taheri², MS; Majid Najafi Kalyani³, PhD

¹Department of Nursing, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran;

²Student Research Committee, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran;

³Department of Nursing, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Shiraz, Iran

Corresponding Author:

Majid Najafi Kalyani, PhD; Department of Nursing, School of Nursing and Midwifery, Shiraz University of Medical Sciences, Nemazee Square, Zand Blvd., Postal code: 71936-13119, Shiraz, Iran
Tel: +98 71 36474255-8; Fax: +98 71 36474252; Email: majidnajafi5@yahoo.com

Received: 18 August 2023 Revised: 17 December 2023 Accepted: 19 December 2023

ABSTRACT

Background: Proper self-care practices play a crucial role in the well being and longevity of patients with cardiovascular disease. To effectively engage in self-care, it is imperative for patients to receive adequate education and training on the self-care process. This study was conducted to determine the effect of family-oriented education (FOE) on the self-care behaviors of patients with acute myocardial infarction (AMI).

Methods: In this randomized clinical trial study, 70 patients hospitalized in two hospitals in Shiraz during November 2021-April 2022 participated after the first AMI. Patients were randomly assigned into control (N=35) and intervention groups (N=35) based on random allocation. In the intervention group, an educational program was conducted for patients and active family members during three sessions of 45 to 60 minutes. The control group received routine care. Demographic information form and Self-Care Agency scale was completed by the patients before the educational intervention, one month, and two months after the educational intervention. Data analysis was done through SPSS 22 using Chi-square test, independent t-test, Fisher's exact, and Friedman test. $P < 0.05$ was considered as the statistical significance level.

Results: There was no significant difference in self-care behaviors between the two groups before the intervention ($P = 0.71$). The mean score of self-care behaviors in patients one month ($P < 0.001$) and two months ($P < 0.001$) after FOE in the intervention group showed a statistically significant difference with the control group. Also, the mean score of self-care behaviors two months after the education in the intervention group was significantly higher than before and one month after the intervention ($P < 0.001$).

Conclusion: Given the positive effect of FOE on self-care behaviors of patients with AMI, it is recommended that educational interventions related to the treatment plan of these patients with the participation of families should be conducted.

Trial Registration Number: IRCT2021116053078N1

Keywords: Family health, Myocardial infarction, Patient education, Self care

Please cite this article as: Molazem Z, Taheri E, Najafi Kalyani M. Effectiveness of Family-oriented Education on Self-care behaviors of Patients with Acute Myocardial Infarction: A Randomized Clinical Trial. *IJCBNM*. 2024;12(1):13-22. doi: 10.30476/IJCBNM.2023.99393.2299.

aspects of self-care and self-management in patients increased.³⁴ Critically ill patients are more exposed to mental disorders such as stress, depression, anxiety, and post-traumatic stress disorder due to invasive and modern technologies.³⁵⁻³⁷ Family support can be very effective in reducing these problems.³⁴ Of course, this issue requires ethical and legal policies by health policymakers.^{38, 39}

Use of FOE as an educational intervention for empowerment of patients with AMI was the most important strength of the present study. Since, the completion of the second and third stages of the questionnaire was done by calling the patients, the method could affect the patients' responses. Moreover, the level of concentration, attention, and mental condition of the patients at the time of answering the questionnaires could affect their answers, which were not under the control of the researchers.

CONCLUSION

The present study showed the beneficial effect of FOE on the total self-care scores of patients with AMI. It is recommended that educational interventions related to the treatment plan of these patients with the participation of families as a simple and accessible method should be conducted.

ACKNOWLEDGMENT

This article was extracted from the MS thesis written by Elham Taheri in the field of Critical Care Nursing and financially supported by Shiraz University of Medical Sciences, Shiraz, Iran (grant No. 23699). We are grateful to all the patients and families who participated in this study. We would also like to thank Shiraz University of Medical Sciences for providing the research platform. The authors also thank Shiraz University of Medical Sciences, Shiraz, Iran and also Center for Development of Clinical Research of Nemazee Hospital and Dr. Nasrin Shokrpour for editorial assistance.

Conflict of Interest: None declared.

REFERENCES

- 1 Reed GW, Rossi JE, Cannon CP. Acute myocardial infarction. *The Lancet*. 2017;389:197-210.
- 2 Piepoli MF, Corrà U, Dendale P, et al. Challenges in secondary prevention after acute myocardial infarction: A call for action. *European Journal of Cardiovascular Nursing*. 2017;16:369-80.
- 3 Zand S, Asgari P, Bahramnezhad F, Rafiei F. The effect of two educational methods (family-centered and patient-centered) multimedia software on dysrhythmia of patients after acute myocardial infarction. *Journal of Health*. 2016;7:7-17. [In Persian]
- 4 Sopic D, Aminifar A, Aminifar A, Atienza D. Real-time event-driven classification technique for early detection and prevention of myocardial infarction on wearable systems. *IEEE Transactions on Biomedical Circuits and Systems*. 2018;12:982-92.
- 5 Deek H, Hamilton S, Brown N, et al. Family-centred approaches to healthcare interventions in chronic diseases in adults: a quantitative systematic review. *Journal of Advanced Nursing*. 2016;72:968-79.
- 6 Li Z, Liu T, Han J, et al. Confrontation as a Mediator between Sense of Coherence and Self-management Behaviors among Elderly Patients with Coronary Heart Disease in North China. *Asian Nursing Research*. 2017;11:201-6.
- 7 Jaarsma T, Cameron J, Riegel B, Stromberg A. Factors Related to Self-Care in Heart Failure Patients According to the Middle-Range Theory of Self-Care of Chronic Illness: a Literature Update. *Current Heart Failure Reports*. 2017;14:71-7.
- 8 Ahn S, Song R, Choi SW. Effects of Self-care Health Behaviors on Quality of Life Mediated by Cardiovascular Risk Factors Among Individuals with Coronary Artery Disease: A Structural Equation Modeling Approach. *Asian Nursing Research*. 2016;10:158-63.
- 9 Niakan M, Paryad E, Shekholeslam F, et