



Research Paper

The effect of self-care training on happiness and resilience of patients undergoing coronary artery bypass graft surgeries

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ABSTRACT

Background: Self-care training after open-heart surgery is an effective method and nurses can reduce anxiety in patients by providing them the necessary information.**Objectives:** This study investigated the effect of self-care training on happiness in patients undergoing coronary artery bypass graft surgery.**Methods:** Data collection tools were two questionnaires, demographic information, Oxford Happiness and Connor & Davison Resilience Questionnaire (CD-RISC).**Results:** The mean score of happiness in the intervention group increased significantly one month after the intervention (57.36 ± 10.51 versus 64.50 ± 8.05 , $P = 0.001$). The mean score of resilience in the intervention group increased significantly one month after the intervention (56.76 ± 13.00 and 66.46 ± 10.48 , $P = 0.01$).**Conclusion:** Self-care training for patients undergoing coronary artery surgery has positive effects on their happiness and resilience. Therefore, it is necessary to pay attention to the principled and planned educational interventions. Routine and codified educational interventions in the wards are sometimes not done as they should be. It is recommended for health care delivery systems to design these training programs in the form of rehabilitation programs.© 2022 The Authors. Published by Elsevier Ltd on behalf of Surgical Associates Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Coronary artery disease is the leading cause of death in developing countries [1]. One of the effective methods in treating coronary artery disease is coronary artery bypass grafting [2]. Patients undergoing coronary artery bypass graft surgery may suffer from psychological problems such as anxiety, depression, worry, and fear, which start when the patient is aware of the choice of surgery as a method. Treatment continues until the patient's discharge [3]. Anxiety can be due to fear of surgery, entry to an unfamiliar environment, separation from family, and lack of knowledge and information about how the surgery is performed and its consequences [4]. The results obtained from this study indicated

that patients who had moderate preoperative fear showed better postoperative adjustment compared to patients who had more fear [5]. Therefore, every effort should be made to reduce the patient's anxiety [6]. Numerous studies have shown that patients experience less stress when they are resilient [7,8]. Resilience is the process that helps individuals gain emotional abilities to deal effectively with the challenges in the family and social life. There is no specific way to learn resilience because resilience is not a pre-determined skill. Resilience involves the set of skills, attitudes, and values that a person acquires. Among the preliminary skills for cultivating resilience are self-awareness, coping with negative mood and depression skills, anger management skills, stress management, and problem-solving skills [9]. In their study, Frederickson et al. found that subjects with resilient characteristics had reduced cardiovascular response and depressive symptoms [10,11]. Therefore, increasing resilience in individuals enables them to actively deal with issues, face the problems around them, and establish their

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Authors contribution

ZM and MJ: study design and concept, and drafting; FJ and MS: data collection and performing the study; MHK: analysis and drafting. All authors' read and approved the study.

Registration of research studies

The study is approved by ethics committee of Shiraz University of Medical Sciences (IR.SUMS.REC.1398.549).

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix ASupplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.ijso.2022.100454>.

References

- Andreoli TE, Benjamin I. Andreoli and Carpenter's Cecil essentials of medicine. WB Saunders Company; 2007.
- Arofiati F, Khoiriyati A. Guidelines of clinical practicum block v advanced medical surgical nursing practice i cardiovascular nursing.
- Garbossa A, Maldaner E, Mortari DM, Biasi J, Leguisamo CP. Efeitos de orientações fisioterapêuticas sobre a ansiedade de pacientes submetidos à cirurgia de revascularização miocárdica. *Braz J Cardiovasc Surg* 2009;24(3): 359–66.
- Lopez V, Ying CS, Poon C-Y, Wai Y. Physical, psychological and social recovery patterns after coronary artery bypass graft surgery: a prospective repeated measures questionnaire survey. *Int J Nurs Stud* 2007;44(8):1304–15.
- Durling M, Milne D, Hutton N, Ryan S. Decreasing patient's preoperative anxiety: a literature review. *Medicine* 2007;15(4):245–56.
- Deyirmenjian M, Karam N, Salameh P. Preoperative patient education for open-heart patients: a source of anxiety? *Patient Educ Counsel* 2006;62(1): 111–7.
- Markovitz SE, Schrooten W, Arntz A, Peters ML. Resilience as a predictor for emotional response to the diagnosis and surgery in breast cancer patients. *Psycho Oncol* 2015;24(12):1639–45.
- Abolghasemi A. The relationship of resilience, stress and self-efficacy with life satisfaction in students high and below achievement. *J Psychol stud* 2012;7(3):132–51.
- Lee TY, Cheung CK, Kwong WM. Resilience as a positive youth development construct: a conceptual review. *Sci World J* 2012;2012.
- Sexton MB, Byrd MR, von Kluge S. Measuring resilience in women experiencing infertility using the CD-RISC: examining infertility-related stress, general distress, and coping styles. *J Psychiatr Res* 2010;44(4):236–41.
- Onwukwe YU. The relationship between positive emotions and psychological resilience in persons experiencing traumatic crisis: a quantitative approach. Capella University; 2010.
- Gallo LC, Ghaed SG, Bracken WS. Emotions and cognitions in coronary heart disease: risk, resilience, and social context. *Cognit Ther Res* 2004;28(5): 669–94.
- Huffman JC, Mastromauro CA, Boehm JK, Seabrook R, Fricchione GL, Denninger JW, et al. Development of a positive psychology intervention for patients with acute cardiovascular disease. *hi. Heart Int* 2011;6(2):2011. e13a
- Poursina M, Ahmadi K, Shafiabadi A. The impact of happiness on anxiety, academic achievement and parent-child relationships in teenage girls. 2013.
- Amedro P, Gavotto A, Legendre A, Lavastre K, Bredy C, De La Villeon G, et al. Impact of a centre and home-based cardiac rehabilitation program on the quality of life of teenagers and young adults with congenital heart disease: the QUALI-REHAB study rationale, design and methods. *Int J Cardiol* 2019;283: 112–8.
- Olson N. Preoperative anxiety in children and their parents: the parents' perspective of the anxiety experienced by a child prior to surgery, the emotional effect on the parent and the care a nurse can provide: a qualitative study. 2018.
- Fredericks S. Timing for delivering individualized patient education intervention to coronary artery bypass graft patients: an RCT. *Eur J Cardiovasc Nurs* 2009;8(2):144–50.
- Krannich J-HA, Weyers P, Lueger S, Herzog M, Bohrer T, Elert O. Presence of depression and anxiety before and after coronary artery bypass graft surgery and their relationship to age. *BMC Psychiatr* 2007;7(1):1–6.
- Ahamgarzadeg RS, Oladrostam N, Nematolahei A. The effect of positive thinking training on stress, anxiety and depression in coronary heart disease. 2017.
- Peyambari M, Sadeghi M, Rashidi M. The effect of cognitive-behavioral training on depression and psychological hardness of Patient with cardiovascular diseases. *Iran J Health Educat Health Promotion* 2019;7(4):289–99.
- Shareh H, Asgharkhah E. The effectiveness of group metacognitive therapy on metacognitive components and resiliency of women with multiple sclerosis. *Iran J Psychiatry Clin Psychol* 2016;22(1):3–16.
- Varaei S, Shamsizadeh M, Cheraghi MA, Talebi M, Dehghani A, Abbasi A. Effects of a peer education on cardiac self-efficacy and readmissions in patients undergoing coronary artery bypass graft surgery: a randomized-controlled trial. *Nurs Crit Care* 2017;22(1):19–28.
- Khodabakhshi-Koolaei A, Entekhabi F, Falsafinejad MR, Sanagoo A. Relationship between optimism and humor with resilience in female nurses of hospitals in Isfahan, Iran. *J Gorgan Univ Med Sci.* 2019;21(1).
- Edraki M, Rambod M. Psychological predictors of resilience in parents of insulin-dependent children and adolescents. *Int j commun based Nurs Midwifery* 2018;6(3):239.
- Oraki M, Mehdizadeh A, Dortaj A. The effectiveness of self-care empowerment training on life expectancy, happiness and quality of life of the elderly in Iranian elderly care centers in dubai. *Iran. J. Age* 2019;14(3):320–31.
- Sin NL, Lyubomirsky S. Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis. *J Clin Psychol* 2009;65(5):467–87.
- Sanjuán P, Ruiz Á, Pérez A. Life satisfaction and positive adjustment as predictors of emotional distress in men with coronary heart disease. *J Happiness Stud* 2011;12(6):1035–47.
- Lyubomirsky S, Sheldon KM, Schkade D. Pursuing happiness: the architecture of sustainable change. *Rev Gen Psychol* 2005;9(2):111–31.
- Rajabi S, Abbasi Z. The epidemiology of migraine headaches and the efficacy of Fordyce's happiness training on reducing symptoms of migraine and enhancing happiness. *Contemporary Psychology. Biann. J. Iran. Psychol. Assoc.* 2015;9(2):89–100.
- Tugade MM, Fredrickson BL. Resilient individuals use positive emotions to bounce back from negative emotional experiences. *J Pers Soc Psychol* 2004;86(2):320.
- Eslamiankoupaie S, Parchebafieh S, Sahebalmamani M, Madadi S. The effect of education based on Orem's self-care model on emotional reactions in patients with Implantable Cardioverter Defibrillator (ICD). *Iran J Cardiovasc Nurs* 2018;7(3):6–11.
- Feliu-Soler A, Cebolla A, McCracken LM, D'Amico F, Knapp M, López-Montoyo A, et al. Economic impact of third-wave cognitive behavioral therapies: a systematic review and quality assessment of economic evaluations in randomized controlled trials. *Behav Ther* 2018;49(1):124–47.