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The effect of telephone counseling based on Orem's model on adherence to treatment and resilience of patients with coronary angioplasty: a randomized clinical trial

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Abstract

Background This study aimed to determine the effect of telephone counseling based on Orem's Self-Care Model on adherence to treatment and resilience of patients with coronary angioplasty.

Methods This randomized clinical trial was performed on 80 patients in the Cardiac Intensive Care Unit of Shiraz University of Medical Sciences. Patients were randomly divided into two groups of 40 (intervention and control). Questionnaires on adherence to treatment of chronic patients and resilience for patients with cardiovascular and respiratory diseases were filled out before and 8 weeks after the intervention. In the intervention group, the telephone call schedule consisted of three calls per week for 8 weeks.

Results Before the intervention, no significant difference was found between the groups about adherence to treatment and resilience. However, after the intervention, a significant difference was found between the groups as to adherence to treatment and resilience ($P < 0.001$).

Conclusion Nursing consultation using telephone calls based on Orem's model increases the adherence to treatment and resilience of patients undergoing coronary angioplasty. Telephone counseling can help the patients adhere to their treatment plans and develop resilience skills.

Keywords Orem Self Care Model, Treatment adherence, Resilience, Coronary angioplasty, Tele-nursing

Introduction

Cardiovascular diseases are predicted to be the main cause of death and disability in the world by 2030 [1]. It shows that recent surgical and pharmacological interventions have reduced mortality from heart diseases [2]. One of the treatment options available for coronary artery disease is percutaneous coronary intervention (PCI) [3]. The use of PCI has increased steadily over the past decade. When the treatment is successful, the patient may even be discharged on the same day as the procedure. Shorter hospitalizations are cost-effective, but the responsibility for care transfers quickly to the patients, who may

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mobile phones has provided a promising opportunity to improve the care and self-management of heart patients. Nurses can also deal with the complications and effects of the disease by learning resilience methods and changing the patients' attitudes about the stress caused by coronary angioplasty, thereby improving resilience in patients.

Practice implications

According to the results of this study and the effect of telephone counseling on adherence to treatment and resilience of patients after angioplasty, it is recommended that all patients in this ward should be considered counselors who can counsel these patients by telephone. Also, a center in the hospital should be designed as a call center where counselors can monitor the patient's condition at home. Depending on the content of the course (explanation of decision styles, problem-solving steps, anger management relaxation techniques, stress management techniques, etc.), face-to-face meetings could be appropriate along with telephone counseling. Also, the use of videos containing this content might be possible for patients. It is better than telephone consultation, so it is suggested that these points should be considered in future studies.

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Author contributions

Khatereh Rostami, Mahsa Maryami, and Masoume Rambod contributed to this study. All of the authors participated in conceptualization, designed, drafted, read, and revised the manuscript, and approved the study and manuscript. Khatereh Rostami, Mahsa Maryami, and Masoume Rambod participated in data collection management. Khatereh Rostami, Mahsa Maryami, and Masoume Rambod collaborated in data analysis and interpretation. All of the authors approved the draft of the manuscript.

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Data Availability

The data that support the findings of this study are available from [Khatereh Rostami], but restrictions apply to the availability of these data, which were used under license for the current study, so they are not publicly available. Data are, however, available from the authors upon reasonable request and with permission of [Khatereh Rostami].

Declarations

Ethics approval and consent to participate

We obtained the code of ethics (1400.167. IR.SUMS.REC) from the Research Ethics Committee of Shiraz University of Medical Sciences and we confirm that all methods were performed in accordance with the relevant guidelines and regulations. The study received the code of IRCT20210303050562N1

(Registration date: 18/06/2021); we also obtained permission from the University of Medical Sciences and related hospitals and written informed consents were signed by the participants in the study. They were insured of the anonymity and confidentiality of information in all stages of the research and had the right to cancel and withdraw from the study at any time.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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