

Research Article

The Effect of Self-Care Program on the Quality of Life in Patients Suffering from Unstable Angina Pectoris

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ABSTRACT

Introduction: Over half of the cardiac intensive care unit inpatients are the individuals suffering from unstable angina pectoris. Hospital readmission results from lack of adequate information and failure to comply with medical advices that adversely influence the patients' quality of life. The purpose of this research is to study the effect of self-care program on the life quality of unstable angina pectoris patients in hospitals affiliated to Jondi Shapour University in 2015.

Method: this is a clinical trial research studied 100 unstable angina patients that were randomly assigned into two intervention and control groups. Data collected through using demographic questionnaire and Seattle Angina Questionnaire that particularly measured the quality of life in patients suffering from unstable angina. The procedure was 8 one-hour sessions of face-to-face instruction through pamphlets, books, CDs and slide presentations, twice a week for the intervention group. The sessions were performed during hospitalization and following discharge in accompany of patients' caregivers. Then, the patients' quality of life in both groups was measured prior and one month post treatment. And finally, the quality of life in both groups was compared. Data analysis was conducted through SPSS-20 software. Statistical interventions were compared using independent t-tests, prior and post alteration means, quantitative variables' scores including the scores of quality of life in the two treatment and control groups as well as paired t-test to compare the variables' prior and post means. In addition, as Kolmogorov-Smirnov test indicating abnormal distribution of the quantitative variable was significant, the non-parametric equivalents of the two aforementioned tests i.e. MannWhitney test and Wilcoxon Rank test were used.

Findings: The results showed that there is a significant difference seen between the two groups in term of physical performance, stable angina, recurrent pain, treatment satisfaction, the pain perception level following the treatment ($P \leq 0.05$).

Conclusion: Follow-up nursing care and self-care instruction in unstable angina patients causes recovery and enhanced quality of life.

Key terms: Instructional program, self-care, quality of life, unstable angina pectoris

INTRODUCTION

According to WHO¹ reports, 35% of causes of death in the developing countries result from cardiovascular diseases (1). The trend is promoted so far that it is predicted to be the major death factor by 2020 (2). One of the major causes of death and disability in Iran is

heart diseases attributing 50% of death causes in a year (3). Ischemic heart diseases are the first death cause factors among individuals older than 35 years; of these diseases, unstable angina pectoris is almost the most dangerous (4). Angina is a typical sensation of chest pain, pressure or squeezing occurs when the heart receives inadequate oxygen. If angina takes

¹World Health Organization

place in predictable situations for example, during exercise it is called stable angina; whereas, intermittent pain periods with no risk symptoms lasting more than natural angina periods is referred as unstable angina. This is a dangerous, threatening situation demanding immediate emergency medical cares (5). The patients are exposed at the risk of readmission mostly due to inadequate information and failure to follow medical advices (6, 7). The effects of unstable angina including myocardial damage are associated with mental symptoms, job insecurity, less entertainment and social communication, stressful future, disorder in interpersonal relations as well as family roles (8). Heart disease risk factors are often correlated with the patient's behavior and awareness (knowledge) (9) that as one vital means of improving the patient's quality of life not only majorly improves the behaviors such as smoking, improved level of tolerance and physical activity and submission of medical recommendations, but also saves in the costs of prevention and treatment (10-12). Mc Gillion et al (2014), in a study, showed that self-care programs are correlated with increasing the quality of life (13). The result of an experimental study in U.S on cardiovascular patients indicated the relationship between self-care program with health dimensions and mental performance (14, 15). Several studies reveal that the patients suffering from coronary artery disorder have no desired quality of life (18). Physical problems are considered as effective factors of the patient's quality of life such that these symptoms adversely influence the patients' socio-psychological and emotional dimensions (19). Paying attention to the quality of life in patients suffering from angina pectoris decreases physical, mental, emotional and social restrictions of this disabling disease on patients (20); in addition to reducing mortality rate. A person suffering from this disease may encounter some changes in family relationships, work, values, and physical-social abilities, self-care; or in other word, various dimensions of quality of life (21). As

seen, self-care, in some researches, intensifies all situations of quality of life; while, in other studies, only some dimensions of quality of life were effective and in some, no effect was observed. Regarding several studies carried out on the quality of life in different patients including myocardial infarction and heart failure, the quality of life among the patients suffering from unstable angina pectoris was less considered. Therefore, the question raised here is that to what extent self-care program influences the patients' quality of life. Thus, the present research is conducted to study the effect of self-care program on the patients' quality of life suffering from unstable angina pectoris.

METHOD

This is a clinical trial study. Research population included unstable angina pectoris patients visiting CCUs in Imam Khomeini and Golestan Hospitals in 2015. The visiting patients were hospitalized; then, an instructional program was designed following needs assessment. The qualification requirements were consciously participating in the study, age range of 35-70, residence of Ahvaz, minimum one month interval of disease definitive diagnose, non-limiting diseases (spinal cord injury and contagious infectious disease), lack of participating or benefiting from self-care programs and services in clinics and homes, and fluent speakers of Farsi. The samples were divided into two 45-individual intervention and control groups. The intervention group received 8 one-hour sessions of instructional material and self-care program extracted from 'Nursing and heart surgery', Lachman and Bruner, including diet, sport and mobility, sleep and rest, pain control methods and symptoms recognition, medications and side effects, as well as learning relaxation techniques as treatment. The first and second sessions were performed when the participants were admitted at the hospital; the other sessions were held at instructional class following release. Control group received regular and routine cares. The

instructions were given at the presence of the patients' caregivers. The researcher taught the aforementioned instructions through image and slide presentation; the patients were supposed to ask any questions about the disease. In addition, they were also given a phone number to call the researcher, if needed. It was highlighted that no other instructional source was allowed. In order to follow up learning materials at home, a self-reporting care paper was given to one family member to record the used materials. This continued up to the next session while the instructions were emphasized by phone, too. Finally, the intervention group completed the quality of life questionnaire for the second time. Data collected through using a demographic questionnaire and Seattle Angina Questionnaire (SAQ) (22), which is a 5-scale questionnaire consisting of 19 items. The SAQ scales included physical performance (9 items), angina stability (1 item), pain recurrence (2 items), treatment satisfaction (4 items), and understanding disease (3 items). The items were classified in a Lykert scale from Excellent to Poor scoring 1 to 5 in order. Reverse scoring was used in negative items. The scores of the five scales were from zero to 100 such that the higher scores indicating the better quality of life of that scale. The questionnaire reliability and validity was verified 59%-85% by Taheri khrame et al (23). And finally, the results were analyzed through SPSS 20 software by paired and Chi-Square tests at significant level $P \leq 0.05$.

Findings

The results showed that the majority of patients (54%) were male; the groups did not show any statistically significant difference in terms of marriage status ($p=0.282$), residence ($p=0.468$), family history ($p=0.090$), length of staying ($p=0.371$). As seen in Table 1, comparing pre and post quality of life dimensions in the two intervention and control groups show that all pre-treatment dimensions are not significantly different in both groups ($P>0.05$); moreover, comparing post-treatment

quality of life dimensions showed a significant difference in both groups ($P \leq 0.05$).

DISCUSSION

The research results revealed that the patients' quality of life improved following the self-care program in intervention group. Several studies demonstrated that self-care programs cause enhanced quality of life. Mirbagher et al (2014) studied 'the effect of self-care instruction on the patients' quality of life suffering from unstable angina pectoris'. The participants were randomly assigned into two intervention and control groups. Results of pre- and post-instruction showed significant difference between two groups in terms of post-treatment quality of life ($p \leq 0.05$); whereas, comparing pain and health scales showed no significant difference. Jersema et al (2014) (24) presented that concentrated, systematic self-care instruction along with instructional materials may cause enhanced self-care behavior; whereas, it less influenced the quality of life. This is inconsistent with the present study, which may be due to the type of instructional presentation.

Lisoer et al (2013) (25) studied patients with coronary artery disease and found that self-care program causes desired changes in all life scales, which is consistent with the present research.

In the present study, self-care improved all dimensions of quality of life. Therefore, it is inferred that continuous care interventions may enhance quality of life dimensions. Thus, it requires particular attention of health care staffs.

The results of Carson et al (2014) (26) demonstrated that all scales of the quality of life, excluding pain recurrence, are consistent with the present study following rehabilitation programs in which self-care and instruction majorly contributed; this was because of skeletal-muscular diseases such as back pain and arthritis in the participants.

The results of another study conducted by Houban et al (2013) (27) on patients with severe heart failure showed that outpatient

self-care program significantly improved dimensions of quality of life; these results are consistent with this research. The present study demonstrated that the quality of life in intervention group is significantly different following receiving self-care program. Izel et al (2013) (28) presented that self-care instruction enhances the quality of life, which is consistent with the present study.

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