



Research Article

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## ***The impact of Palliative Care program on Quality of Life in Patients with Chronic Heart Failure***

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### **ABSTRACT**

**Objectives:** The purpose of this study was to investigating impact of palliative care on quality of life in patients with chronic heart failure. Chronic heart failure typically results in progressive debilitation, a deteriorating quality of life and distressing symptoms, especially at the end of life. **Methods:** This study was carried out as a experimental form on 82 patients candidate for chronic heart failure were selected in Emam KHomeini hospital in 2014– 2015 who were randomly divided into two case and control groups including 41 subjects. The research instrument was a questionnaire on demographic data , quality of life questionnaire of patients with chronic heart failure . Training programs of palliative care were implemented during admission time until one –months after discharge time in the intervention group. Data were analyzed using descriptive and analytic statistical tests (,Pair t Test, Pearson correlation coefficient) by SPSS 21 software. **Results:** The results showed statistically significant difference in the rate of quality of life between case group (182.25) and control group (93.56 after the intervention. The average scores of quality of life are significantly increased in the intervention group after training program. **Discussion & Conclusion :** The results of this study indicates there is significant impact palliative care on quality of life over time. The study found that palliative care on quality of life and reduce symptoms is effective and useful.

**Keywords:** palliative care, quality of life, chronic heart failure

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### **INTRODUCTION**

Heart Failure (HF) is a progressive, life-limiting condition that affects more than 5 million people in the US, with about 550,000 new cases each year. Once HF is diagnosed, the one year mortality rate is 20% and the 5-year mortality rate over 50% ( 1). There is a preponderance of evidence indicating that HF exacts a tremendous physical, psychological, emotional and spiritual toll on the people diagnosed with it and the family members who care for them(2). the classic symptoms of fatigue, dyspnea, and fluid retention attributable to HF of all causes, people with HF often suffer from progressive physical debility leading to unanticipated dependency and social isolation(3). General medical comorbidities and cognitive impairment, typical of the aged population, may also require attention. Supportive and palliative needs may be significant and vary in form and intensity, reflecting the dynamics of the individual's disease trajectory(4).

Therefore, greater attention to symptom management and advocating for palliative care (PC) earlier in the HF trajectory may potentially reduce suffering from both physical and psychological symptoms and lessen the distress associated with this incurable condition(5). Until recently, most palliative care research has focused on patients with metastatic cancer. Randomized, controlled trials have shown a multitude of benefits, including improved quality of

life and prolonged survival(6,7). Palliative care is less established for heart failure patients, but studies show that this patient population may benefit as much from palliative care as cancer patients.(8) The palliative care movement began in the 1970s as a grassroots community hospice movement aimed at caring for cancer patients in their homes (9). The aim of palliative care is to clinically manage complex (and often apparently refractory) symptoms, provide psycho-social support to the patient and their family, to improve quality of remaining life, achieve the best possible death, and should be available from the point of diagnosis through to the end of life(10). Improving palliative care is an important public health care issue worldwide (11). Multiple systematic reviews have demonstrated the benefits of palliative care for patients and families (12,13). Access to appropriate care and support at the end of life is recognized by many as a basic human right (14). Patients with severe heart failure are dying with significant symptom burden that is similar, or in some instances greater than, patients dying from cancer. and yet they are rarely referred to specialist palliative care teams(15). Palliative care interventions have been recommended as a means to meet the needs of patients throughout the heart failure trajectory.( 16) These services are most salient for a person with heart failure, that is, someone who may not be 'labeled' as dying, but who needs comprehensive services concurrent with life-prolonging care throughout the illness/death trajectory.(17) The purpose of this study was to investigating the effect of palliative care on quality of life in patients with chronic heart failure.

Palliative care is an approach that improves the quality of Life of patients and their families facing the problem Associated with life-threatening illness through the Prevention and relief of suffering by means of early Identification and impeccable assessment and treatment Of pain and other problems , physical , psychosocial and Spiritual .( 18,19)

## METHOD

The research is quasi- experimental. The population of the study were all patients with chronic heart failure who were referred to Imam Khomeini hospital in Jiroft which samples of the research were 88 patients of CCU and Post CCU wards who were selected by simple (available) sampling method.

The exclusion criteria included the presence of any severe Psychiatric disorders, lack real diagnosis chronic heart failure .In addition, subjects with other diseases that prevent physical activity were also omitted. Finally, those patients with chronic heart failure who attended another training courses or similar studies were excluded to avoid possible interactions with the present the study . On the whole, 6 persons were excluded from the study because they were attending a educational program (n = 2), acute chronic heart failure (n = 2), or psychiatric illness (n = 1).

According to the exposed criteria, a final sample of 82 patients with chronic heart failure between ages 35 and 73 years were randomly divided into two case group (41persons) and control group (41persons).case group received palliative care while control group received ordinary care.

In addition, necessary trainings were given to nurses in CCU and Post CCU wards about programs and consultations of palliative care as workshops, educational booklets in relation to chronic heart failure. The training is based on the palliative care protocol according to definition of the World Health Organization which includes providing care in physical, mental-psychological, social and economic dimensions (as relieving the physical symptoms, psychological and religious counseling by religious people, providing a peaceful environment for religious practices, providing a suitable environment for social activities such as visiting with friends and relatives ..., providing end of life cares and giving counseling in this regard by clergymen and religious figures, giving patient report to the social worker and donors and organizations supporting in the case of economic problems, etc.). In addition, these cares after discharge were done consistently and continuously for a month.

In this study, the Minnesota Quality of Life Questionnaire was used. The reliability of the Minnesota Quality of Life Questionnaire with Cronbach's alpha coefficient was 0.79

in study of Greene et al(20). In the present study, validity of this questionnaire was also conducted citing valid scientific sources and a survey of 10 nurses' experts. Cronbach's alpha coefficient of the questionnaire in this study was 0.80.

Data collection method: In this study, researcher selected the samples based on available sampling after providing relevant licenses to the authorities of certain diseases. After an adequate description of the research objectives and verbal consent from them, the demographic information questionnaire and Minnesota Quality of Life Questionnaire were given to the patients in the case and control groups on arrival at the hospital and before providing nursing care and information was collected through interviews by the researcher in some cases that patients were not able to complete the questionnaire. Then according to palliative care protocol, the trained nurses provided nursing cares along with palliative cares to patients in the case group. While patients in the control group received only normal nursing cares. Finally after the intervention, quality of life questionnaire was filled by patients in case and control groups for the second stage after about a month.

To describe the data, the central index, dispersion, number and percentage were used. The data were analyzed by using spss statistical software version 21. Since Kolmogrov - Smirnov test showed the normal distribution of data and Levin test showed homogeneity of data, parametric tests of Pearson correlation coefficient and paired t-test were used for data analysis.

## RESULT

Features of the examined samples have been presented in Table 1 in terms of demographic characteristics and separation of the studied groups. Groups were similar in terms of age, gender, marital status and etc. and their differences were not statistically significant ( $p < 0.8$ ).

**Table 1.** Distribution of subjects surveyed in terms of characteristics and separation of the studied groups

Charac- teristics	Family history		Exercise		Smoking		Education		Occupation		Marital status			Age
	Yes	No	Yes	No	Yes	No	Lower than high school diploma	Higher than high school diploma	Employed	Unemployed	Unmarried	Married	other	
experimental (n = 41)	11	31	20	22	18	24	27	15	20	22	5	25	12	58 ±3 .4
Case (n = 41)	12	30	21	21	17	25	26	14	18	24	5	24	13	56 ±8 .1

.The results showed that palliative care program has effect positive on the quality of life until one month discharge (Table 2).

**Table 2.** Comparison of the quality of life in patients with chronic heart failure in two case and control groups before and after the implementation of training program

Mean of quality of life	Pre-test	Post-test
case (n = 41)	77.4	40
control (n = 41)	76	74.9
p-value	P<0.4	P<0.001

Using Pearson correlation test, it was also found in this study that the quality of life has a direct and significant correlation with palliative care ( $p<0.001$   $r=0.699$ ).

## DISCUSSION

The results of this study indicates there is significant impact palliative care on quality of life over time and reduces pressure symptoms after discharge. Finally, given the evidence that PC improves patient/family satisfaction with care, it was not surprising that the participants indicated that working with the PC team improved their hospital experience(21). Evangelista et al(2012) indicated A palliative care consultation may reduce symptom burden and depression and enhance quality of life in patients with symptomatic heart failure over time (3 months after discharge) (22). these findings substantiate earlier research findings Bekelman (2012) that outpatient PC referrals early in the disease trajectory enhance clinical management and care coordination for patients and families suffering with the burden of HF(23). Metzger & et al (2013) reported The findings from their study provided an inside look at the experience of a group of people with HF and their family members who were referred to an inpatient PC team. The results of their study indicates Despite barriers of palliative care nearly all participants reported that the PC team improved their hospital experience (24). Hupcey & etal proposed a model of Palliative Care for Heart Failure. They reported Palliative care has been defined as both a philosophy of care and a system of care delivery. As a philosophy of care, any and all healthcare providers who come into contact with the patient or family can provide supportive care interventions aimed at managing symptoms and other issues throughout the patient's illness trajectory (25). Brumley & etal indicated The PC intervention improved patient satisfaction at 30 and 90 days after enrollment, improved the likelihood of dying, and significantly reduced the cost of care overall and by average cost per day (26). Yamagishi And etal in their study with title Changes in Quality of Care and Quality of Life of Outpatients With Advanced Cancer After a Regional Palliative Care Intervention Program indicated All subdomain scores of the quality of care, except for help with decision making, significantly improved in the post intervention survey. The percentages of the patients who reported that improvement was necessary decreased from 13% to 5.0%. significant difference in total and subdomain scores of quality of life between pre intervention and post intervention surveys, the subgroups of patients with a poor performance status and those receiving no anticancer treatment achieved a significant improvement in the quality of life(27). Bakitas and etal reported that Compared with participants receiving usual oncology care, those receiving a nurse-led, palliative care-focused intervention addressing physical, psychosocial, and care coordination provided concurrently with oncology care had higher scores for quality of life and mood( 28). Gelfman and etal showed that PC consultation is associated with improved satisfaction with attention to family and enhanced self-efficacy(29). As patients with chronic heart failure reach the need for end-of-life care, specialized interventions and communication may be required. The palliative care needs of patients living with heart failure are similar to those living with cancer and yet there are fewer services available to them. Physicians, nurses and other health professionals need to be aware that these patients may benefit from referral to palliative care services.

## CONCLUSION

In general, Our study shows that palliative care is associated with improved quality of life and reduce pressure symptoms. palliative care offers an approach for improve quality of life chronic heart failure patients. These results indicate that improvement in hospital end-of-life care and enhanced training of physicians will help address the needs of this. Further studies should address which aspects of this multi-component intervention reflected these

improved family outcomes. The findings of this study suggest that the research in the field of palliative care consultations at home or hospital for these patients is recommended.

#### CONFLICT OF INTEREST

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

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