Revista Publicando, 5 No 16. (1). 2018, 470-482. ISSN 1390-9304

The effect of family-centered empowerment model on the level of death anxiety and depression in hemodialysis patients

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Abstract

Background: The final stage of kidney disease is a severe form of chronic kidney disease, and the inelastic reduction of renal function is the result. Hemodialysis is the most common form of treatment. Despite the increase in life expectancy, there are psychological disorders and pressures such as death anxiety and depression. Therefore, the aim of this study was to determine the effect of family-centered empowerment on the level of death anxiety and depression in patients undergoing hemodialysis.

Materials and Methods: In this experimental study, 30 patients undergoing hemodialysis referring to Imam Khomeini Hospital in Zabol city were randomly selected and divided into intervention and control groups. Data were collected using Temple death and Beck Depression Inventory. At first, the questionnaires were completed by samples and then the intervention group received a family-centered empowerment model in 2 3-hour sessions within a week; no intervention was performed for the control group. One week after the intervention, the questionnaires were completed again. Mann-Whitney U and Wilcoxon test were used for data analysis. SPSS software version 22 was used.

Findings: According to the findings, there was a significant difference between the level of anxiety of death before and after the intervention in the intervention group (P = 0.001). However, there was no statistically significant difference in the control group (P = 0.21). There was a significant difference in the death anxiety variable (P = 0.014) before the intervention and the intervention group (P = 0.014). After the intervention, this difference was significant (P = 0.001). The findings

Received 15/05/2018
Approved 30/06/2018

showed that there was a significant difference between the level of depression in the intervention group and intervention after intervention (P = 0.001). However, the control group did not show a statistically significant difference (P = 0.86). Also, there was no significant difference in the depression variable before intervention between the intervention and control groups (P = 0.051), but after intervention, this difference was significant (P = 0.001).

Conclusion: Several studies suggest death and depression anxiety in hemodialysis patients. Therefore, considering the positive effects of family-centered empowerment model on the level of death anxiety and depression in hemodialysis patients, nurses should be advised in this study. To increase the level of mental health and thus improve the quality of life, it is important to pay more attention to the role of families in empowering these patients.

KeyWords: Family-centered Empowerment Model, Death Anxiety, Depression, Hemodialysis

Received 15/05/2018
Approved 30/06/2018

Revista Publicando, 5 No 16. (1). 2018, 470-482. ISSN 1390-9304

Introduction

The final stage of kidney disease (ESKD)[1] is a severe form of chronic kidney disease (CKD)[2] that results in irreversible reductions in kidney function (1). Among alternative treatments, hemodialysis is the most commonly used treatment method in Iran and in the world (2). By the end of 2014, the number of hemodialysis patients in the world was approximately 2358000 and in Iran, the number of dialysis patients was estimated to be 27457 Of these, 94% were treated by hemodialysis. Also, the incidence of hemodialysis in Sistan and Balouchestan province at the end of this year was 300 people per million (3).

Although hemodialysis can increase the life span of patients with chronic renal failure, complications and problems created for these patients following illness and treatment are a global problem and require appropriate interventions (4). These patients, in addition to numerous physiological changes caused by Uremic Syndrome (5), and prolonged illness, are faced with psychosocial problems such as anxiety, depression, and social disorder.

Anxiety in patients undergoing hemodialysis can be a barrier to adherence to diet and recommended treatments, and has a negative effect on self-care and treatment outcomes (6). One of the most important types of anxiety that is known and named is its anxiety (7). Death anxiety means persistent, abnormal, and death-stricken anxiety that, as defined by the British National Health Service, means: a kind of panic, panic, or anxiety when thinking about the process of dying or disconnecting from the world or what After death occurs (8). In fact, exposure to death and anxiety resulting from it are considered as one of the most important components of mental health of individuals (9). Patients undergoing hemodialysis are at risk of death due to their stressful conditions (10). Anxiety and depression are strongly correlated with each other (11), so that a large number of people with anxiety disorders usually show depressive symptoms (12). Also, the results of a research show that there is a significant relationship between death anxiety with general anxiety and depression (13).

Depression is a person's psychological state, so that he or she experiences feelings of grief, grief and constant emotion in the influence of various factors or in relation to everyday problems and

[1] - End Stage Kidney Disease
[2] - Chronic Kidney Disease

Received 15/05/2018
Approved 30/06/2018

thus does not have the mental balance necessary to satisfy his needs satisfactorily (11). Depression in patients undergoing hemodialysis is one of the important factors in reducing compliance, and the lack of participation of depressed patients in treatment may endanger the health of the patient and may lead to premature death (6). Depression and anxiety are among the most common psychiatric disorders in patients with chronic renal failure, with a different outbreak for them in several studies (14). Disorders and psychological pressures in hemodialysis patients in relation to anxiety, depression and lack of social support cause these patients to have lower quality of life and a decrease in quality of life as a factor in the success of hospitalization and death. And Mir in this group of patients (15), therefore, nurses are able to help them with the ability to do daily activities (16), given the critical role they play in the rehabilitation of patients with physical and mental disabilities.

On the other hand, empowerment is considered as the dominant and dominant approach in protecting patients with chronic diseases (17). Many thinkers believe that empowerment is a dynamic, positive, interactive, and social process, and to improve the quality of life of people with chronic disease, accountability, better interaction with health authorities, satisfaction, better response to treatment, prevention of complications, reduced costs Treatment and positive look at the disease (18). The goal is to empower self-esteem. Self-assessment recognizes the ability of a patient with chronic disease to participate in solving a problem and makes significant changes in her well-being (17). A study has shown that family history is an important factor in accepting dialysis in renal failure patients, and family support and education have a significant effect on dialysis and its consequences (19). One of the methods of promoting the health of chronic patients is a family-centered empowerment model that emphasizes the effectiveness of the role of the individual and other family members in the health dimension (20). In fact, Empowerment helps the family to be able to change. Family-centered empowerment involves the patient and her family in decision making to improve their health so that they can control their health by making their own choices and achieve their goals to improve their health by taking care of themselves (21, 22). As family power increases, the family finds more autonomy than dependence on health care providers. (23). In recent years, the concept of empowerment in nursing and medical research has been given a special place and is referred to as the necessity of nursing profession (24).

Received 15/05/2018
Approved 30/06/2018

Revista Publicando, 5 No 16. (1). 2018, 470-482. ISSN 1390-9304

At the present time, much emphasis is placed on the use of patterns of empowerment of health status and quality of life associated with health, as well as improving symptoms of anxiety and depression in patients (11). Also, hemodialysis patients have serious problems with their urmotic syndrome and emotional complications due to their illness and thus the best source for transferring information between the health team and these patients, their families (19). Considering the mentioned cases and the progressive increase in the incidence and prevalence of chronic renal failure worldwide and the high mortality and cost of care for these patients, this study aimed to determine the effect of family-centered empowerment model on the level of death anxiety and depression in patients undergoing hemodialysis.

Materials and Methods

After approval of the draft plan and its approval by the Ethics Committee of Zabol University of Medical Sciences and obtaining necessary permits, hemodialysis patients referring to the special patient center of Zabol completed the Templar death anxiety questionnaire and the second version of the Beck Depression Inventory, and then based on the study Ahmadvand et al. (25) and using the formula for determining the sample size, 30 patients who received scores above 15 and above 14 of the above questionnaires and had criteria for entry and exit to study were included in the study.

Criteria for inclusion in the study include consent for participation in the research, age group 18 to 45 years, diagnosis of chronic renal failure by a specialist, at least 3 months from the onset of hemodialysis, 3 sessions of dialysis per week, absence of other chronic diseases, No malignancy, no serious physical problems, no known mental illness that requires the use of psychiatric drugs, no suicidal thoughts or history of suicide, no history of substance abuse, no experience of adverse events Such as the death of relatives in the first six months of the past, the lack of cognitive problems, familiarity with the Persian language and the ability to establish Communication and collaboration. Exit criteria also included dissatisfaction with the continued participation in the research, the lack of family cooperation, kidney transplantation, changes in the patient's clinical condition, the need for hospitalization, participation in another course at the time of the research, migration, or death of the patient.

Received 15/05/2018
Approved 30/06/2018

Templer's Death Anxiety Inventory contains 15 items and was first created by Templer Donald in 1970. The answer to each item is Likert. There are five options, including very disagreeable (1), disagree (2), I have no idea (3), I agree (4) and I very much agree (5). Questions 15,7,6,3,2 are reversed. The scorecard range is between 15 and 75, and fewer points indicate lower death anxiety and higher scores represent greater death anxiety (8). Reliability of the questionnaire was confirmed by Masoudzadeh et al. (2008) with Cronbach's alpha 0.95 (26). Content validity of the questionnaire was confirmed by 10 faculty members of Zabol Nursing and Midwifery Faculty. The second version of the Beck Depression Inventory is an updated and revised version of the original version of the Beck Depression Inventory, a self-reporting tool for screening depression in people over 13 years old and containing 21 questions. The questionnaire has cognitive, motivational, emotional, physiological and other factors. Each question has 4 options and these options are graded with scores 0 to 3. In this questionnaire, 21 questions have been asked about a person's feelings in the past two weeks. As a general rule, grades 19-14 are mild depression, 28-20 medium depression and 29-63 are defined as severe depression (27). Various studies have confirmed the validity and reliability of this questionnaire (28-30).

In the next step, after providing the necessary explanations about the goals and interventions of the research, the written informed consent form as well as the personal information questionnaire were completed and then the samples were randomly divided into intervention and control groups. The demographic questionnaire consisted of 7 questions including age, sex, marital status, occupational status, educational level, history of hemodialysis and the cause of ESKD. Its content validity was confirmed by 10 faculty members of the Faculty of Nursing and Midwifery of Zabol and the experts of the kidney and urinary tract. In order to determine its reliability, a test-retest method was used on 10 patients with a 10 minutes interval and its reliability was confirmed with $r = 1$.

In the intervention group, a family-centered empowerment model was conducted in 2 3-hour sessions within a week on death anxiety and depression in hemodialysis patients for the patient with his family, according to Frankl's (31) meaningful treatment protocol. It should be noted that there was no intervention in the control group during this period, and patients received only routine training. One week after the intervention, the Temple death anxiety inventory and the second

Received 15/05/2018
Approved 30/06/2018

version of the Beck Depression Inventory were completed by the intervention and control groups. After collecting data, SPSS software version 22 was used to analyze the data and Mann-Whitney U and Wilcoxon tests were used.

Findings

According to the findings, most female participants (53%), married (63%), illiterate (36%), housewives (36%) and high blood pressure (40%) were the cause of their renal failure. Also, the mean age of the patients in the intervention group was 35 ± 0.00, the control group was 36 ± 5.00, and the mean hemodialysis history in the intervention and control groups was 9 ± 4.00.

Based on the findings, in the intervention group, there was a significant difference between the level of pre-death anxiety and post-interventional intervention using Wilcoxon test (p = 0.001). However, there was no statistically significant difference in the control group (p = 0.21). Also, in terms of death anxiety variables, before intervention, there was a significant difference between the test and control group using the Mann-Whitney U test (P = 0.01). After the intervention, this difference was significant (001 / 0p =). The results of Wilcoxon test showed that there was a significant difference between the level of depression before and after the intervention (p = 0.001). However, the control group did not show statistically significant differences (p = 0.86). Also, there was no significant difference between depressive variables before and after intervention using Mann-Whitney U test between test and control groups (P = 0.051), but after intervention, this difference was significant (p = 0.001). (Table 1).

Table 1. Comparison the level of death anxiety and depression in the intervention and control groups

Groups	Death anxiety		P-value	Depression		P-value
	Before	After		Before	After	
	Middle (Quartile between Domain)	Middle (Quartile between Domain)		Middle (Quartile between Domain)	Middle (Quartile between Domain)	
Intervention	69 (7)	27 (13)	0/001	38 (4)	4 (7)	0/001

Received 15/05/2018
Approved 30/06/2018

Control	64 (5)	62 (13)	0/21	35 (9)	36 (9)	0/86
P-value	0/01	0/001	-	0/051	0/001	-

Discussion and conclusion

According to the findings of this study, the level of death anxiety and depression in the intervention group decreased 1 week after intervention compared with the control group (P <0.001). In Farzami and colleagues of 2016, the effect of family-centered empowerment model on improved quality of life and reduced the level of anxiety and depression in elderly patients with angina. The family-based empowerment model significantly affected the level of anxiety and depression (11), which is consistent with the results of the present study. Gol Karami & Associates 2013, which explores the impact of empowerment programs on reducing depression in the elderly Empowerment programs have a significant effect on the reduction of depression (32), which is also consistent with the results of the present study. In the 2012 study by Salehi et al., Which examined the effect of family-centered empowerment model on hemodialysis patients' quality of life, Family-centered empowerment model does not affect the dimensions of mental health and activity limitation due to mental problems (2 dimensions of quality of life) in hemodialysis patients (33), which is not consistent with the results of the present study. In a study by Sayyid Nematollah Roshan et al in 2015 that examined the effect of the family-centered empowerment model on the quality of life of adolescent girls with iron deficiency anemia, family-based empowerment model significantly improved the quality of life (34). As we have already mentioned, mental health is one of the dimensions of the quality of life. Therefore, it can be concluded that the results of this research are consistent with the present research.

Considering the use of meaning therapy protocol to implement the family-centered empowerment model in this study, we can mention Haji Azizi et al., 2017, that the meaning of group therapy significantly affects death anxiety (35). Which is consistent with the results of our study. In Hamid et al., 2011, which investigated the effectiveness of psychometrics on depression, anxiety and quality of life in cancer patients, it was found that meaningfulness in semanticism has a significant effect on the reduction of anxiety and depression. (36) and also in the study of Hosniyan et al. In 2014 that explores the effectiveness of group logic on the mental health and quality of life of

Received 15/05/2018
Approved 30/06/2018

women with breast cancer, it was determined that the meaning of group therapy has an effect on improving mental health (37). Since death and depression anxiety are two issues affecting mental health, it can be concluded that the results This research coincides with the present research.

Several studies suggest death and depression anxiety in hemodialysis patients. Therefore, considering the positive effects of family-center empowerment on the level of death anxiety and depression in hemodialysis patients in this study, it is recommended that nurses improve their health Psychological and, as a result, the promotion of quality of life, have a major role in empowering these patients.

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Received 15/05/2018
Approved 30/06/2018