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A STUDY OF THE INFLUENCE OF SPİRİTUAL THERAPY ON THE SELF-ESTEEM AND HOPE OF PATİENTS UNDERGOİNG HEMODİALYSİS

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ABSTRACT

Background: Since self-esteem and hope not only are important sources of adaptation for patients with chronic diseases, but can affect their attitude, health conditions and quality of life, there is need for interventions that can enhance patients' elf-esteem and hope. Aim: the present study aims to investigate the influence of spiritual therapy on the self-esteem and hope of patients undergoing hemodialysis. Method: The present study is a randomized clinical trial conducted on patients with chronic renal failure who were undergoing hemodialysis in 2015. The sample consisted of 90 patients, who were randomly divided into two groups: the control group and the experimental group. The patients in the spiritual therapy group received eight sessions of face-to-face education, as well as a researcher-made booklet before they began their hemodialysis treatment. The control group, on the other hand, merely received the standard education provided at the hemodialysis ward. Data analysis was conducted based on statistical tests and using SPSS v. 20.Result: The results of the study showed a significant difference between the means of the intervention group's self-esteem and hope scores before and three month after the intervention (p=0. 001). The differences between the means of the control group's self-esteem and hope scores before the intervention and three month after the intervention were not significant (p=0. 1)Conclusion: Thus, as an inexpensive intervention, this type of therapy is recommended for increasing the self-esteem and hope of patients with renal failure who are undergoing hemodialysis.

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Introduction

Chronic renal failure (CRF) is an irreversible progressive dysfunction that eventually necessitates dialysis or renal transplant [1]. The upward trend in the prevalence of the disease across the world means that an increasing number of patients are in need of alternative treatments, such as renal transplant, peritoneal dialysis and hemodialysis [2]. The current prevalence of chronic renal failure in the world is 242 people in one million, with a yearly 8 % increase. The prevalence of the disease differs from country to country. According to the statistics of Iranian Center of Special Diseases and the Renal Foundation of Iran, by the end of 2008 more than 24 thousand people in Iran were affected by chronic renal failure, 48.3 % of whom were treated by hemodialysis; it is also reported that the number of patients increases by 15% yearly. Hemodialysis increases patients' life expectancy, but it cannot help with their basic renal failure [3].

Even though dialysis is a lifesaver and prolongs patients' lives, it results in a wide variety of physical, psychological, financial, and social problems for patients, and eventually adversely affects their quality of life. Patients with renal failure experience not only various physiological changes, but much psychological distress that can adversely affect their mental balance and

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behavior: most of them are maladjusted and suffer from such behavior disorders as anxiety, depression, isolation, hopelessness, and low self-esteem [4].

Hope is an important source of adaptation for patients with a chronic condition to survive and affects their attitude, health conditions, and future opportunities [5]. Nowotny et al. maintain that hope is a measurable quality and should be considered in the analysis phase of the nursing process and subsequently enhanced through necessary interventions; unless a patient's hope is increased, he/she would not be prepared for clinical and self-care education [6]. Rocha et al. report that hopelessness is a common incident among patients with chronic renal failure who are being treated with alternative treatments [7].

Hope can improve a patient's self-sufficiency, self-esteem, spirituality, social support and quality of life [2, 3].

On the other hand, despair and hopelessness can discourage a patient from adhering to his/her treatment plan, which is still a major challenge in the medical profession. It is estimated that half of interventions to encourage patients to adhere to their treatment plans and regimen are in vain [8]. Thus, there is an urgent need for interventions to enhance hope in patients. According to Frieson , in patients undergoing hemodialysis, hope is affected by self-esteem, which means that increasing patients' self-esteem will increase their hope; moreover, since an individual's spiritual needs and beliefs are among his/her most essential and supreme needs, it is important that patients' spiritual side be taken into consideration. Religion and spirituality affect a person's physical and psychological well-being [9].

Overall, it appears that spiritual values can be used to efficiently improve the daily activities and physical and psychological health of an individual. Spirituality can counteract the effects of everyday tensions, thereby increasing an individual's health and quality of life [10]. Hope is a necessity for patients with chronic diseases and enables them to challenge their limitations and try to survive [11].

The results of the study of Ironson et al. show that enhancement of spirituality and religiousness in patients with AIDS slows the progress of their disease, reduces their psychological problems, and improves their biological immunity [12]. Likewise, Koszycki et al. maintain that spirituality-based interventions can reduce depression and anxiety [13]. Yet, few researchers have addressed the effects of spiritual counseling on patients, particularly with regard to the important indexes of hope and self-esteem. Moreover, the available research has been conducted in cultures which are quite different from the Islamic culture in Iran. Therefore, considering the cultural, social, and economic differences between Iran and other countries, the present study aims to investigate the effects of spiritual therapy on the self-esteem and hope of patients undergoing hemodialysis in Iran. The researchers hope that the results can help allay the pains of the patients and lower their treatment costs.

Materials and Methods

Study design

This randomized clinical trial study was approved by the Ethics Committee of Jahrom University of Medical Sciences, and registered at the Ministry of Health Center for Clinical Trials.

2.2. Study setting and sample

This study was conducted over 4 months from November 2014 to March 2015 in hemodialysis department of Motahari Hospital in Jahrom. Based on mean calculations and the results of a similar study [14], sample size was set at 90 patients with a confidence of 95 % and power of test of 80 %. Sampling was conducted after obtaining necessary permissions and coordination with hemodialysis department authorities. Study population consisted of patients with advanced chronic renal failure attending hemodialysis department of Motahari Hospital in Jahrom. They were selected purposively and were then randomly divided into two groups (45 patients in each) using Random Allocation software. Study inclusion criteria were the following: age between 18 and 65 years old, constantly receiving hemodialysis treatment for at least 6 months for once to three times per week lasting 3 to 4 hours each time, with no intention to leave Jahrom or to have kidney transplant in the course of intervention, receiving no formal hemodialysis training, and no cognitive or psychological disorders .Study exclusion criteria included history of adverse events or experience in the recent 6 months, receiving antidepressants, admission for acute illness, and unwillingness to take part.

2 Data collection

First, a questionnaire containing inclusion criteria were given to patients, and if they met the inclusion criteria, they were selected as participants, and written consent was obtained from them. Next, data were collected using a questionnaire consisting of three parts: demographic information, Coppersmith Self-Esteem Inventory, and Miller Hope Scale. Each questionnaire was completed through an interview during a hemodialysis session of patients.

The authors tried to explain the questions of questionnaire if they had difficulty in reading and understanding. Also the content of education was in level of participant's understanding.

The questionnaire

1-The adults' version of Coppersmith Self-Esteem Inventory was adapted by Tabatabaei in 1999 and Besharat in 2011. The questionnaire consists of 35 items or statements; the respondent should choose from one of the four choices—I totally agree, I agree, I disagree, and I totally disagree—to express his/her true feeling about each item. The sum of each respondent's scores, which can range from 35 to 140, shows his/her level of self-esteem [15,16]. To verify the scientific reliability of the questionnaire, the researchers submitted the questionnaire to 20 supervisors for two days; the Chronbac's alpha, which was calculated based on the even and odd number questions, was found to be r=0.87.

2-Miller Hope Scale is a diagnostic test. It was used for the first time to measure hope in patients with cardiac diseases in the U. S.; the test addresses 48 aspects of hope and despair which are based on the manifest and hidden signs of hope and despair in people [17].Each item, which represents a behavioral sign, is followed by the choices: 1. strongly disagree, 2. disagree, 3. neutral, 4. agree, and 5. strongly agree. Each respondent, by choosing the options that best describe his/her situation, acquires a score. The numerical value of each item ranges from 1 to 5, and the total scores range from 48 (the most hopeless) to 240 (the most hopeful). Miller Hope Scale has been tested repeatedly: to determine the reliability of the scale, Hosseini (2008) used the Chronbac's alpha and split-half methods and found the coefficients to be 0.90 and 0.89 respectively. Also, to determine the validity of the scale, Hosseini used the criterion question score: the total score of the questionnaire correlated with the criterion question score and a significant positive correlation was found to exist between the two ($p<0.0001$, $r=0.61$). Darvishi (2009), in a study of women with breast cancer, employed the Chronbac's alpha and split-half methods to find the reliability coefficient of the scale to be 0.89 and 0.90 respectively; he found its validity to be 0.79.

Intervention

Richards & Bergin (2005) stated the spiritual strategies as follow:

1. To read religious holly books.

2. To Pray.

3. To state the history of the religious patterns.

4. To participate in the religious- spiritual programs.

5. Repentance and forgiveness.

6. Education and spiritual analyses of moral values.

The patients in the intervention group received eight sessions of spiritual therapy, while the control group merely received the standard education provided at the hemodialysis ward. The procedure used for spiritual counseling in the present study, which was based on the spiritual and religious interventions used in the studies of Miller and Moarefzadeh [18], was validated by 8 university professors and theologians (fig. 1-1). The spiritual counseling consisted of eight 60-minute sessions which were held twice a week, either in the morning or afternoon, in groups of 6 to 7 in the hemodialysis ward. This intervention had been done by community health nursing and with helping of psychologist. The instructor worked in hemodialysis ward for 10 years ago and she participated in thatching programs on previously in period of 6 months that held by University.

At the end of the sessions, the patients were given a researcher-made educational booklet. Three months after the intervention, the participants in both groups were asked to complete the Coppersmith Self-Esteem Inventory and Miller Hope Scale again.

2.6. Data Analysis

The collected data were analyzed using descriptive statistics (frequency distribution tables, mean, and standard deviation) and analytic statistics (chi-square, independent t-test, and paired t-test) in SPSS v. 20. Significance level was set at less than 0.05.

Results

The sample of the study was composed of 90 patients who were undergoing hemodialysis. Considering on the type of our study that was the impact of spirituality therapy on patients' self-esteem and hope, the authors think that lack of reducing in the number of patients was due to the hope and self-promotion and training protocol is in fact effective. The means of the patients' ages in the intervention group and the control group were 55.18±16.6 and 58.44±15.66 respectively. Based on the chi-square test, the differences between the intervention group and the control group in the demographic variables were not statistically significant and the groups were homogeneous [Table 1]. The results of the independent t-test at the beginning of the study showed that there were no significant differences between the intervention and control groups in terms of the means of their self-esteem scores and hope scores ($p>0.05$). The results of the paired t-test showed a significant difference between the means of the intervention group's self-esteem and hope scores before and three month after the intervention ($p=0.001$).

The differences between the means of the control group's self-esteem and hope scores before the intervention and three month after the intervention were not also significant (p=0. 1). [Tables 2, 3].

Conclusion

Evidence suggests that hemodialysis is responsible for dramatic changes in quality of life of patients with chronic renal failure. In addition to several physiological changes, these patients are faced with many psychological pressures, and each in turn can impair their mentality and personality, such that the majority suffers behavioral problems and unadjusted stresses such as anxiety, depression, isolation, denial, and delusion. These problems affect their self-esteem and hope, such that more problems mean lower quality of life and hope [19].

Providing non-medication measures by nurses (often with lower risk for patients) can increase hope, and can lead to cessation or reduction of drug use [20]. Using nursing interventions to increase hope is not in conflict with medical standards. Spiritual therapy is referred to as a set of techniques used to reduce stress, or to increase the ability to cope with life stresses.

The results of the study show that subjecting patients who are on hemodialysis to a spiritual therapy-based intervention significantly increases their self-esteem and hope. Many studies demonstrate that spiritual therapy can enhance the psychological well-being of patients: examples include the studies of Rahmati et al. [21]. There also studies showing that spiritual therapy and spirituality-based interventions are effective in reducing patients' emotional-psychological and physical problems and pain: in their study of complementary therapies for cancer patients, Richards et al. discovered that spirituality and religion are more effective in lowering patients' anxiety than other complementary therapies [22]. In the study of Ebrahimi et al. [23], the spiritual therapy intervention reduced the patients' depression and suicidal tendencies. In their study of how religion, anxiety and mental peace are related in the youth, Ellison et al. concluded that belief in the afterlife and praying result in greater peace and less anxiety .Similarly, Maddahifard et al. [24] report that spirituality-oriented cognitive-behavioral therapy improves patients' coping strategies.

It is evident that spiritual therapy interventions can reduce the psychological and physical problems of patients who are undergoing hemodialysis and enhance their self-esteem and hope. Hope is a necessity for patients with chronic diseases: it gives such patients the ability to overcome their barriers and survive [11]. Spiritual counseling helps a patient not become preoccupied with his/her lacks and failures, but remain hopeful and seek closeness to God, and have a meaningful life. Meaningfulness, purposefulness, and hopefulness are major contributory factors in psychological well-being [13]. If patients come to believe that their lives are meaningful, every incident in their lives (even chronic diseases) becomes tolerable. Therefore, satisfactory provision of spiritual counseling by nurses can impart a sense of purposefulness to patients, reduce their depression and anxiety, encourage them to communicate with others and God, and eventually incline them toward interpersonal relationships and having hope [2, 3].

The results of the study show that the means of the self-esteem scores of the patients in the intervention group before and after the intervention are significantly different. The reason for this statistical difference between their scores before and after the intervention can be the effects of the spiritual therapy intervention they had experienced. yaghubi et al. (2011) state in their study that education can enhance the self-esteem of patients who are on hemodialysis [25].

The results also showed an increase in the hope scores of the patients in the control group after the intervention. This increase in hope can be attributed to the improved conditions of the patients as a result of hemodialysis and their hope for having a renal transplant. Considering the impact of spiritual counseling on patients' spiritual and psychological well-being and the importance of providing psychological care in the nursing profession, the researchers recommend that nursing students and professional nurses be educated on the concept and components of spiritual care.

There were some limitations in the current study including the small sample size and the short period of study. Therefore, it is suggested to conduct further studies with larger sample size and in longer follow-up period to better evaluation of patients. In our article we only trained spiritual therapy and measured self-esteem and hope of participants. We can do offer measure higher level of spirituality/religiosity of participants in the intervention group before and intervention in future studies.

The results of the study show that spiritual therapy interventions can positively affect the self-esteem and hope of patients who undergo hemodialysis. Thus, considering the special problems of these patients and the consequences of hopelessness for their quality of life, treatment adherence, and recovery, it is suggested that care-providers, administrators, and experts in the health system employ spiritual therapy to improve the physical, psychological, and spiritual aspects of the patients' lives.

Ethical aspects: The study was approved by the institutional Ethics Committee of the University Hospital, jahrom, Iran. Prior to this study, patients were informed of the purpose of the research. Participants were informed of their right to refuse to participate in or to withdraw from the study at any stage. Anonymity and confidentiality of participants were maintained.

Conflict of Interest

The authors declare that there is no conflict of interests regarding the publication of this paper.

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Author contribution

Study conception and design (MK, FP), statistical expertise, analysis and interpretation of data and supervision (MK), manuscript preparation (MK), supervision, administrative support and critical revision of the paper (MK, FP).

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Table 1. Frequency distribution of the baseline demographic characteristics of the subjects in both groups

Group Variables		Intervention Freq. (%)	Control Freq. (%)	p-value*
Gender	Male	20 (44.4)	17 (37.8)	0.58
	Female	25 (55.6)	28 (62.2)	
Marital Status	Single	5 (11.1)	4 (8.9)	0.86
	Married	35 (77.8)	36 (80)	
	Divorced	1 (2.2)	2 (4.4)	
	Widowed	4 (8.9)	3 (6.7)	
Education	Illiterate	12 (26.7)	18 (40)	0.34
	Semiliterate	10 (22.2)	5 (11.2)	
	High-school	18 (40)	18 (40)	
	College	5 (11.1)	4 (8.8)	
Employment status	Government	5 (11.1)	4 (8.9)	0.82
	Self-employed	3 (6.7)	5 (11.1)	
	Unemployed	9 (20)	11 (24.4)	
	Retired	11 (24.4)	11 (24.4)	
	Housekeeper	14 (31.2)	17 (37.8)	
Group Before intervention		**Spiritual therapy**	**Control**	**p-value**
		Mean(SD)	**Mean(SD)**	
Self-esteem scores		60.20±13.48	58.32±8.49	**0.5**
Hope scores		98.14±10.4	92.91±11.54	**0.4**

* P-values based on the chi-square test

Table 2. Comparison of the means of self-esteem scores before and after the intervention in both groups

Group	Before (SD±Mean)	3M After (SD±Mean)	Paired t test p-value
Spiritual therapy	60.20±13.48	107.24±12.57	t=5.54 p=0.001
Control	58.32±8.49	68.48±9.63	t=3.06 p=0.1

Table 3. Comparison of the means of hope scores before and after the intervention in both groups

Time / Group	Before (SD±Mean)	3M After (SD±Mean)	Paired t test p-value
Spiritual therapy	**98.14±10.4**	**168.96±7.17**	t=8.14 p=0.001
Control	**92.91±11.54**	**94.14±10.03**	t=6.44 p=0. 1

Fig 1. Participant flow through the study