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A correlational study of hope and its relationship with spiritual health on hemodialysis patients

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Abstract:

BACKGROUND: One of the main psychological problems in hemodialysis patients is hopelessness. Spiritual health leads the patients toward hope and goal in life. Given the importance of the issue and the little research in this area, this study aimed to assess hope and its relationship with spiritual health on hemodialysis patients in Rasht Razi Hospital of Iran.

MATERIALS AND METHODS: This correlational study carried out on 103 patients who admitted in Rasht Razi Hospital Hemodialysis Center by simple random sampling. The data were collected through Snyder's Hope Scale and Spiritual Health. The psychometricity of these questionnaires has been confirmed in domestic studies. The data were analyzed by using descriptive and inferential statistics (Pearson correlation coefficient).

RESULTS: The majority of the patients were male (59.2%), in the age group of above 60 (46.60%), married (83.5%), with low income (60.2%), and under diploma (53.4%). The mean of hope score was 36.36 (± 9.10) that showed the high level of hope in the majority of the patients. The mean of the total spiritual health score was 227.93 (± 19.01) that indicates the high level of spiritual health in hemodialysis patients. There was a positive and significant correlation between spiritual health and its dimensions and hope ($P < 0.05$).

CONCLUSIONS: The results of this study approve the importance of spiritual health as an effective variable on hope among hemodialysis patients. Hence, health-care providers and clinical experts are recommended to focus on spiritual health to increase hope among such patients.

Keywords:

Hemodialysis, hope, spiritual health

Introduction

Among the health problems in today's world, chronic kidney disease (CKD) is considered as a threatening situation for the health, economy and social situation of the patients, their families, and their communities.^[1] CKD is considered to be a stage in which the function of the kidneys reaches <50% of its normal filtering capacity.^[2] This disease with a prevalence of between 5% and 10% in the world is one of the main concerns for the World Health

Organization.^[3] Emergence and prevalence of renal failure is reported to be 242 cases per million that is increase 8% annually.^[4] It is estimated that the number of patients with end-stage renal disease (ESRD) increases up to 450,000 in 2030 and the number of individuals who require dialysis or kidney transplantation reach 2 million.^[5] According to official reports in Iran, the annual rate of increase in the ESRD is 11%, and evidence shows that the number of patients will double in the next 5 years. The incidence and prevalence of ESRD in Iran are 53 and 250 per million, respectively.^[2]

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To treat this disease, there are generally two options available: kidney transplantation or dialysis.^[6] Along with the therapeutic effects in chronic renal failure patients, hemodialysis could influence the physical, psychological, social, and emotional aspects of the individual. The main psychological problems in hemodialysis patients are anxiety, depression, worrying and in more severe stages, hopelessness has a significant role in the commitment in continuing the treatment and also, it has remained as a challenge in medicine and society.^[7] During recent years, some psychologists have defined the factors correlating and predicting positive psychology such as happiness and hope. For instance, a theory of hope was introduced by Snyder that provides an important theoretical framework for understanding hope in counseling and clinical practice.^[8] It is understandable that individuals with higher levels of hope can better tolerate the situation in difficult conditions such as diseases.^[9]

Studies have shown that hope is an important adjustment mechanism in chronic diseases and it is defined as a strong multidimensional and potential factor in recovery and effective adaptation. In other references, hope is referred to as a factor in predicting the development of serious disease.^[10] If the patients undergoing dialysis have hope about the future, they could feel better in different aspects of their quality of life and if this happens, having a desirable life can increase the sense of hope in these patients. Promoting hope is an effective way to improve the quality of life in people with chronic diseases and enhancement of hope increases the level of self-care, quality of life and improvement of the general health of the patients.^[11] On the other hand, findings of many studies have suggested that spiritual health as a significant factor in life is associated with quality of life and sociopsychological health of patients. The feeling of comfort and power from religious beliefs could effect on health and well-being.^[10] In chronic diseases, the religious belief of the patient is threatened, and spiritual crisis emerges in the individual. Spiritual disturbances lead to sadness in the patient and destroy the positive therapeutic motivations. Spiritual health is one of the concepts in the confrontation of the patients with problems and the stress due to the illness that guides the individual towards a sense of identity, perfection, satisfaction, joy, beauty, love, respect, positive attitude, calmness, internal balance, and goal in life.^[1] This concept is proposed as the fourth pillar of health by the World Health Organization.^[12] This aspect of health, along other aspects (physical, mental, and social) leads to integration of other aspects.^[1]

Studies suggest that the spiritual aspect is one of the most important aspects in caring for the patients and the health-care providers need to be aware of the religious aspects of their area.^[13] Dehbashi *et al.* showed that

promoting spiritual health is expected to increase hope in patients.^[11] Morasei and Aghajani also concluded that counseling with a spiritual approach would lead to an increase in hope for people with chronic renal failure.^[7] The findings of the Fouladi *et al.*'s study also indicated a direct correlation between hope and spirituality and quality of life in hemodialysis patients so that the quality of life of hemodialysis patients can be predicted by positive variables of spirituality and hopes.^[11]

Despite the importance of the issue, the review of literature shows that few studies have looked at hope and spiritual health in hemodialysis patients. However, the implementation of such studies will be necessary, and further studies can lead to better understanding and confirmation of the variables affecting these patients.

Considering the importance of health and spiritual health in improving the adaptation with chronic diseases and the fact that such studies are rare in Iran and also considering the fact that carrying out more of such studies could lead to a higher understanding of variables affecting patients; this research was conducted to study hope and its relationship with spiritual health in hemodialysis patients. It is hoped that the results from this study could help with the guidance of the managers to improve the plans for improving the health in dialysis patients.

Materials and Methods

This study is a correlational study that was carried out on patients admitted in Rasht Razi Hospital of Iran, during 2017. In this study, all patients diagnosed with chronic renal failure who had inclusion criteria were selected through simple random sampling.

The inclusion criteria included: being diagnosed with chronic renal failure, being dialyzed in the past 6 months, being conscious and being aware of time and place, tendency for participating in the study, having the ability to read and write or being able to speak Persian, being dialyzed for three times per week, not having overt cognitive problems such as Alzheimer's diseases and psychotic disorders. The exclusion criteria included: incomplete completion of the questionnaire, reluctance to continue participation in the study and death of the subject. The data were collected from demographic characteristics, hope, and spiritual health questionnaires.

Hope scale was designed by Snyder *et al.* (1991) and includes 12 items Among the 12 items, four items measure agency thinking, four items measure pathways thinking, and four items are fillers, which are scored inversely. The scoring method in this scale is based on 5-point Likert scale from "Completely Agree" (5 points)

to “Completely Disagree” (1 point). The scores range from 12 to 23 indicate low hope, 24–36 show medium hope, and scores above 36 show high hope. Kermani in 2010 carried out the psychometrics of the scale, and its reliability was 0.86 through Cronbach’s alpha.^[14]

In order to test the spiritual health, Comprehensive Spiritual Health Questionnaire in the Iranian community was used. This questionnaire includes 48 questions, and each item is scored based on a 5-point Likert scale and 1 is assigned to “Completely Agree” and 5 is assigned to “Completely Disagree.” The higher scores represent better spiritual health. Items 1–28 are to measure Insight/attitude (cognitive/emotional component) and items 29–48 are to measure the performance (behavioral component). The minimum and maximum scores for insight/attitude are 28–140, in assessing performance are 20–100, and the total score of spiritual health are 48–240. The psychometric of the questionnaire was carried out by Amiri *et al.* and the reliability of the questionnaire was reported to be higher than 0.7, through Cronbach’s alpha.^[15]

The data were analyzed using descriptive (distribution frequency tables, mean and standard deviation) and inferential (Pearson correlation coefficient) statistics by SPSS ver. 19 (IBM Company, Armonk, NY, USA).

The ethical considerations of research included institutional permission with code number of 96100906 and getting permission from the Ethical Committee of Guilan University of Medical Sciences, Rasht, Iran (No. IR.GUMS.REC.1396.431); obtaining informed consent from the patient and ensuring them of the confidentiality of information and allowing to leave the study if they tended to.

Results

Findings related to the demographic characteristics of the patients showed that the majority of the patients were male (59.2%), in the age group of above 60 (46.60%), married (83.5%), homemaker (35.9%) with low income (60.2%), and under diploma (53.4%).

Findings related to the hope showed that the mean and the standard deviation of hope was 36.36 ± 9.10 . Considering the fact that the highest hope score in the used instrument was 60 and scores higher than 36 in the instrument show high hope, it is indicated that the majority of the studied patients have high hope [Table 1].

Furthermore, findings in relation to the hope status indicated that the majority of the patients (54.36%) have high hope and only a lower percentage of them (13.59%) had low hope [Table 2].

Findings related to the spiritual health showed that the total mean score in patients was 227.92 with a standard deviation of 19.01 and considering the fact that the maximum spiritual health score in the studied instrument is 240; the above-mentioned score shows that the spiritual health is high in hemodialysis patients. Moreover, the mean of Insight/attitude score is 134.40 with a standard deviation of 11.88 and the mean of performance is 93.52 with a standard deviation of 8.09 and considering the fact that the maximum insight/attitude score in the study instrument is 140, and the maximum performance score is 100, the above-mentioned scores are both high in both components [Table 3].

Findings related to the correlation between spiritual health and hope show that there is a positive and significant relationship between these two variables ($P < 0.05$) [Table 4].

Discussion

Results of this study showed that the majority of hemodialysis patients have high hope levels. These findings are in accordance with Ottaviani *et al.* that was

Table 1: Hope mean score of hemodialysis patients in Rasht Razi hospital in 2017

Variable	Minimum score	score	Mean±SD
Hope	12	60	36.36±9.10

SD=Standard deviation

Table 2: Hope status of hemodialysis patients in Rasht Razi hospital in 2017

Variable	n (%)	Mean±SD	95% CI
Hope			
Low (12-24)	14 (13.59)	21.38±2.10	20.11-22.66
Medium (24-36)	33 (33.03)	31.97±3.62	29.71-32.23
High (36 up)	56 (54.36)	43.11±5.24	41.70-44.51

CI=Confidence interval, SD=Standard deviation

Table 3: Spiritual health mean score of hemodialysis patients in Rasht Razi hospital in 2017

Variable	Dimensions	Mean±SD	95% CI
Spiritual health	Insight/attitude (28-140)	134.40±11.88	132.07-136.72
	Performance (20-100)	93.52±8.09	91.94-95.11
Spiritual health total score (48-240)		227.92±19.01	224.21-231.64

CI=Confidence interval, SD=Standard deviation

Table 4: Relationship between hope and spiritual health and its dimensions in hemodialysis patients in Rasht Razi hospital in 2017

Spiritual hope health	Pearson correlation (r)	Significant level (P)
Insight/attitude	0.278	0.003**
Performance	0.268	0.003**
Spiritual health (total)	0.293	0.003**

Significant difference of values is indicated by ** $P < 0.01$

carried out on hemodialysis patients whose hope was reported to be high,^[16] while they are not in accordance with the results of Hejazi *et al.* that had reported the hope of the majority of the hemodialysis patients was low.^[17] This difference could be due to the age differences in the studied groups and the study instruments.

Results showed that the mean of spiritual health score was high in the majority of the patients that was in accordance with the studies of Saeidimehr *et al.*, Taheri Kharama *et al.* and Ilali *et al.*,^[18-20] while they were not in line with the study results of Dehbashi *et al.*, Aashrafi *et al.*, Ebrahimi *et al.*, Spinale *et al.*^[1,21-23] In the study of Taheri Kharama *et al.*, 62% of the patients had a high level of spiritual health,^[19] that is in accordance with the results of this study, while in Dehbashi *et al.*' study, 75.7% of the patients were in medium level^[1] and in the study of Borji *et al.*, the spiritual health of only 10.7% of the patients was high.^[24] Since most of these studies were carried out on hemodialysis patients, the difference in the results of this study and other studies could be attributed to the differences in living environment, economic, and social conditions.

The study results showed that there is a relationship between spiritual health (insight/attitude/and performance) and hope in hemodialysis patients. These results are in accordance with the studies of Dehbashi *et al.*, Morasei and Aghajani, Baljani *et al.*, Moghimian and Salmani Zeighami Mohammadi and Tajvidi and Ottaviani *et al.*^[1,7,16,25-27]

According to the results of this study, considering the objectives and choosing methods for giving care by considering the religious or spiritual attitudes of the patients and referring the patients for the therapies that increase the spiritual health, could be helpful in promoting spiritual health and reaching its effective outcome, which will help maintain and enhance the level of hope of these patients. Ottaviani *et al.* also, concluded that since there is a positive relationship between hope and spiritual health, professional caregivers who deal with such patients should consider their sense of hope and spirituality, for paying attention to these leads to the patients' adaptability with the illness and therapy.^[16] Learning how to live with a chronic illness is a process that can be achieved through teaching adaptation using spirituality, with emphasis on meaning and goal in life, and emphasis on religious practices in partnership with others and internal faith.^[25]

The researchers hope that the finding of this study will be used in various areas including education, management, health-care services, and research. In the field of education, the finding of this study can be a guide for professors, students, and education

planners who will pay special attention to the spiritual health of patients to increase their hope. In the area of management, awareness of the results of this research can be achieved by providing the necessary information to the authorities to provide the necessary planning and provision of required measures for the promotion of hope and spiritual health, thereby increasing the health of patients under hemodialysis. The results of this study add to the knowledge of health-care providers, and because good care cannot be taken without knowledge, the increase in knowledge will also add to the professional competence of health-care providers, and they can provide appropriate opportunities to enhance spiritual health and hope of patients. The current finding provides information that may be valuable to researchers. The results of this study, which illustrate the current status of spiritual health and hope of patients, can be used as a basis for further research to improve their health.

The main limitation of this study was the utilization of self-report questionnaire that although the study was completely voluntary, participants may respond to the questionnaire with unrealistic responses that is beyond the control of the researchers. However, the assumption of the study was based on the trust of the respondents and their understanding of the questions.

Conclusions

Results of this research confirmed the importance of spiritual health as an effective variable on hope in hemodialysis patients. Hence, health-care providers and clinical experts are suggested to pay attention to the patients' spiritual health to increase their hope. Considering the relationship between spiritual health and hope, emphasizing on the supportive and counseling role of the health-care providers could have great impacts on spiritual health and hope improvement not only in such patients but also in other patients with chronic diseases.

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Conflicts of interest

There are no conflicts of interest.

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