

Daily Spiritual Experience Level: Comparison between Healthy Adults and Hemodialysis Patients

Mahtab Salehi¹, Sayedeh Zahra Hosseinigolafshani², Jalil Azimian³, Sonia Oveisi⁴

^{1,2,3} School of Nursing and Midwifery, Qazvin University of Medical Sciences, Qazvin, Iran

⁴Metabolic Diseases Research Center, Qazvin University of Medical Sciences, Qazvin, Iran

Correspondence to: Sayedeh Zahra Hosseinigolafshani.

Email: zahragolafshani@yahoo.com

Abstract: Although, spirituality and religiosity is a resource to cope for patients with chronic disease, however study about these topics among patients who are under hemodialysis is very limited. The aim of the present study was to determine the daily spiritual experience level in hemodialysis patients as compared to a healthy adult's sample.

Methods: This is a historical cohort study that conducted in Iran. With using stratified sampling method, 50 patients who were under hemodialysis (for case group) and 50 persons without any problem psychological problem (for control group) were recruited as the subjects for this study. The data were collected, using a questionnaire with items relating to demographic data and Daily Spiritual Experience Scale (DSES). The DSES is a sixteen-item self-report scale. The total score is obtained by summing the scores of the 16 items, which can vary from 16 to 94. Score between 16 to 36 indicted relatively poor level of DSE, score between 37 to 56 indicted moderate level of DSE, score between 57 to 76 indicted high level of DSE, and score between 77 to 96 indicted very high levels of DSE.

Results: The mean score of DSES in participant in case and control group were 77.8 ± 15.4 and 78.6 ± 12.6 respectively. Difference between group were not statistically significant ($P=0.896$). Among demographics characteristics in participants in case group, only participants job and marital status have significant correlation with mean score of DSES (married and housewife obtained higher score)($p<0.05$).

Conclusion: According to finding of present study, most patients reported high and very high level of daily spiritual experience level similar to healthy investigated subjects. Further study in this regards recommended specially among patients with different religious belief and different culture.

Keywords: Chronic disease, End-stage renal disease, spirituality, maintenance hemodialysis.

1. INTRODUCTION

End-Stage Renal Disease (ESRD) is a costly public health problem characterized by permanent kidney failure. Diabetes mellitus and hypertension are the leading causes of ESRD [1]. Other causes of ERDS development are obstruction of the urinary tract, hereditary lesions, vascular disorders, infections, side effects of polypharmacy or specific medications and severe kidney injury [2, 3, 4, 5]. The prevalence and incidence of end-stage renal disease (ESRD) are increasing in developed and developing countries [2]. The results of the reports from the United States showed that between 1980 and 2009, the prevalent rate for ESRD increased nearly 600%, from 290 to 1738 cases per million populations [6]. Iran is a Middle East country with approximately 80 million residents. According to the report of the Iranian Management Center for Transplantation and Special Diseases (IMCTSD), the prevalence and incidence of ESRD have significantly increased

among Iranian population in recent years similar to other parts of world [2]. Results of one study in 2016, showed a high level of mortality and poor survival prognosis for Iranian patient undergoing maintenance hemodialysis [7].

Religiosity and spirituality can be understood as dimensions of human experience that includes beliefs, practices, and experiences related to transcendent or sacred reality [8]. Religiosity involves behaviors related to organized traditions whereas spirituality usually refers to beliefs and experiences. There are several definitions for spirituality. In one comprehensive definition, Cook defined spirituality as "a distinctive, potentially creative and universal dimension of human experience arising both within the inner subjective awareness of individuals and within communities, social groups and traditions. It may be experienced as a relationship which is intimately inner, immanent and personal, within the self and others, and/or as relationship with that which is wholly other, transcendent and beyond the self. It is experienced as being of fundamental or ultimate importance and is thus concerned with matters of meaning and purpose in life, truth and values" [9]. The needs for peace, health and social support are universal human needs and are of special importance to patients with chronic disease [3]. Results of one study by Rao et al., in 2015, revealed that about 26% of Australian women from used prayer or spiritual healing on a regular basis [10]. In another study in this regards, Dunn & Horgas examined the prevalence of prayer use as a spiritual self-care modality in elders' people in USA. Results of Dunn & Horgas showed that 96% of elders' people in this country use prayer to cope with stress based. Women and Blacks used prayer to cope with stress significantly more often than did men and Whites. The most frequently reported alternative treatment modality by participants in Dunn & Horgas was prayer (84%) [11].

Similar to many other chronic diseases, patients with chronic kidney disease faced with various problems including psychological, socioeconomic and physical effects associated with CKD and its treatment [12, 13, 14]. They usually need to develop strategies to help them cope with their disease [13]. Although, spirituality and religiosity is a resource to cope for patients with chronic disease [13, 15], however study about these topics among patients who are under hemodialysis is limited to few study. In present study, we examined level of daily spiritual experiences and related factors among hemodialysis patients and compared it with healthy subjects.

2. METHODS

This is a historical cohort study that conducted in Qazvin Province located in North Iran in 2016. With using stratified sampling method, 50 patients who were under hemodialysis (for case group) and 50 persons without any problem psychological problem (for control group) were recruited as the subjects for this study. Participants in case and control group matched for age, sex, level of education, economic and social status. Participation in the study was entirely voluntary and full confidentiality of the responses was reassured after clear explanation of the objectives of the study. Informed consent was taken from all the participants. Ethical approval was obtained from Qazvin University of Medical Science (school of nursing and midwifery) prior to the collection of any data. In this study data were collected with using demographics questionnaire and Daily Spiritual Experience Scale (DSES).

Demographics questionnaire:

This questionnaire includes participant age, sex, education level, marriage status, level of income in month and any comorbidity.

Daily Spiritual Experience Scale (DSES):

The Daily Spiritual Experience Scale (DSES) is a sixteen-item self-report scale that developed by Underwood and Teresi to assess ordinary experiences of connection with the transcendent in daily life [16]. The DSES was developed using extensive qualitative testing in a variety of groups, which has helped its capacity to be useful in a variety of settings. It includes constructs such as awe, gratitude, mercy, sense of connection with the transcendent and compassionate love. It also includes measures of awareness of discernment/inspiration and a sense of deep inner peace [16, 17, 18]. The first 15 items are answered on a Likert type scale, with scores ranging from 1 (many times a day) to 6 (never or almost never). Item 16 "in general, how close do you feel to God?" is answered on a 4-point scale (1 = not at all to 4 = as close as possible). The score of item 16 must be inverted to maintain the same direction as the other items. The total score is obtained by summing the scores of the 16 items, which can vary from 16 to 94. Score between 16 to 36 indicted relatively poor level of DSE, score between 37 to 56 indicted moderate level of DSE, score between 57 to 76 indicted high level of

DSE, and score between 77 to 96 indicted very high levels of DSE. Previous study in Iranian context showed a good validity and reliability for DSES [19].

All statistical analyses were performed using SPSS software (v17.0; PASW Statistics) with using descriptive statistic (mean and standard deviation), Pierson correlation test and independent t test. Variable was considered to be statistically significant if $P < 0.05$.

3. RESULTS

Of 50 participant in case group who answered the questionnaire 29 were male (58%) and 21 were female (42%), aged from 21 to 70 years. Of 50 participant in control group who answered the questionnaire 20 were male (40%) and 30 were female (60%), aged from 21 to 70 years. Table 1 showed participants demographics characteristics in details (table 1).

Table 1: participant’s demographics characteristics

| Items | | Case group | Control group |
|--------------------|---------------|------------|---------------|
| age | 21 - 30 | 5 | 13 |
| | 31 - 40 | 6 | 14 |
| | 41 - 50 | 7 | 14 |
| | 51 - 60 | 13 | 6 |
| | 61 - 70 | 19 | 3 |
| sex | Male | 29 | 20 |
| | Female | 21 | 30 |
| Marital status | Married | 34 | 45 |
| | Single | 6 | 4 |
| | Divorced | 7 | 1 |
| Income level | Poor | 22 | 12 |
| | Moderate | 21 | 34 |
| | Good | 7 | 0 |
| Level of education | Illiterate | 13 | 3 |
| | Under diploma | 21 | 27 |
| | Diploma | 11 | 8 |
| | Graduate | 4 | 11 |

The mean score of DSES in participant in case and control group were 77.8 ± 15.4 and 78.6 ± 12.6 respectively. Difference between group were not statistically significant ($P=0.896$). Table 2 showed DSES in participants in case and control groups in details (table 2).

Table 2: level of DSE level in participant in case and control groups in details

| Level of DSE | Case group | Control group | P value |
|-----------------|------------|---------------|---------|
| Relatively poor | 1 | 1 | 0.896 |
| Moderate | 3 | 2 | |
| High | 14 | 12 | |
| Very high | 29 | 33 | |

Among demographics characteristics in participants in case group includes (age, sex, marital status, level of education, income level and years of hemodialysis), only participants job and marital status have significant correlation with mean score of DSES (married and housewife obtained higher score)($p < 0.05$). Among demographics characteristics in participants in control group includes (age, sex, marital status, level of education, and income level), only participants sex, age and job have significant correlation with mean score of DSES (female, housewife and participants aged between 41 to 50 obtained higher score)($p < 0.05$).

4. DISCUSSION

When a patient needs maintenance hemodialysis therapy, level of physical, mental, social and financial stress may increase significantly, leading to an increased chance of psychological problem development in this group of patients [3]. The aim of the present study was to determine the daily spiritual experience level in hemodialysis patients as a resource to cope with their chronic disease. We also compared spiritual experience level in this group of patients with healthy adults. According to finding of present study, most patients reported high and very high level of daily spiritual experience level similar to investigated healthy adults. Results of present study also revealed that married and housewife patients obtained higher score from DSES in compared to other patients.

To our knowledge, only one study exists that investigated daily spiritual experience level among hemodialysis patients at now. In this study cross-sectional study, Mahboub et al., examined the fear of death and its relationship with daily spiritual experiences in 50 patients under hemodialysis in Kermanshah, Iran. Mahboub et al., used Cult - Lester fear of death Scale and DSES for measuring fear of death and daily spiritual experiences. The mean score of DSES in patients who participate in Mahboub et al., studies were 52 ± 12.7 . Results of Mahboub et al., studies also reported that high religious belief and religious practices leads to reduction of fear death in this group of patients [19]. Similar to hemodialysis patients, study about level of spiritual experiences among patients with other chronic condition, also very limited. In one study in this regards, Hamrick & Diefenbach examined the daily religious and spiritual experiences among 238 patients diagnosed with localized prostate cancer as compared to a national age and race-matched male sample. Results of Hamrick & Diefenbach study showed that prostate cancer patients have higher levels of daily spiritual experiences in compared to the national sample [20].

Although studies on the daily spiritual experience among patients on hemodialysis is very limited, however several studies on other dimensions of spirituality among this group of patients conducted in different countries. In one study in 2014, Dehbashi et al., examined the relationship between spiritual well-being and hope by using spiritual Ellison Pvyzyan and hope Harison questionnaires in 140 patients under hemodialysis in Zahedan, Iran. Dehbashi et al., reported that hemodialysis patients have moderate level of spiritual well-being. They also find a positive and significant relationship between level of spiritual health and hope in this group of patients [21]. In other study in this regards, MartínezI & Custódio examined the relationship between mental health and spiritual wellbeing among 150 hemodialysis patients in Brazil. They used general health questionnaire and spiritual wellbeing scale for assessing patient's mental health and spiritual wellbeing respectively. Results of MartínezI & Custódio study showed that spiritual wellbeing was the strongest predictor of mental health, psychological distress, sleep disturbance and psychosomatic complaints in this group of patients. They concluded that this important issue consider by health care worker for delivery of palliative care to this group of patients [22]. In other study in 2014, Ebrahimi et al., examined the relationship between spiritual well-being and quality of life in hemodialysis patients by using Paloutzian spiritual health and quality of life questionnaires (SF36). Spiritual health level in Ebrahimi et al., study was moderate. They also reported a significant relationship between participant spiritual well-being level and some aspects of their quality of life includes: fatigue, emotional health, social functioning and general health and social performance [23]. In other study, Eslami et al., examined the relationship between spiritual well-being and sleep quality in on group of hemodialysis patients in Isfahan, Iran. For measuring spiritual health, Eslami et al., used Ellison and Paloutzian spiritual well-being scale. Of 190 patients who participate in Eslami et al., study, 1.5%, 85.7%, 12.3% reported mild, moderate and good level of spiritual health respectively. Results of Eslami et al., study also showed significant relationship between patients spiritual well-being and sleep quality [24].

5. CONCLUSION

Although studies on the role of spirituality in healthcare continue to grow in recent years, however study about daily spiritual experience among patients with chronic disease especially hemodialysis patients is very limited. In present study we examined the daily spiritual experience level in one group of hemodialysis patients. According to finding of present study, most patients reported high and very high level of daily spiritual experience level. With regards that study about daily spiritual experience among hemodialysis patients is very limited, further study in this regards recommended specially among patients with different religious belief and different culture. Also further study recommended for examining correlation between hemodialysis patients level of daily spiritual experience with their quality of life and psychological issue such as depression, anxiety and stress.

6. LIMITATION

One of the limitations of this study is data collection method. Data collection in present study was based on self-reported questionnaires which are prone to recall bias. Also, all participants in our study were Muslim, which should consider it in time of use of results of present study.

ACKNOWLEDGMENT

This article was extracted from student dissertation. We would like to thank patients and health subjects who participated in the present study.

REFERENCES

- [1] <http://www.cdc.gov/chronicdisease/stats/index.htm>.
- [2] Mousavi SS, Soleimani A, Mousavi MB. Epidemiology of end-stage renal disease in Iran: A review article. *Saudi J Kidney Dis Transpl* [serial online] 2014 [cited 2016 Aug 15];25:697-702
- [3] Anjomshoa F, Esmaeili-Abdar M, Rafiei H, Arjmand-Kermani M, Hassanarabi F, Hasani A, Esmaeili Z. Depression among hemodialysis patients: a cross-sectional study in southeast of Iran. *Int J Epidemiol Res*. 2014; 1 (1): 24-28.
- [4] Smeltzer SC, Bare BG, Hinkle JL, Cheever KH. *Brunner and Suddarth's textbook of medical-surgical nursing*. 11th ed. Philadelphia: Lippincott Williams & Wilkins; 2010: 1282- 337.
- [5] Aghighi M, Heidary Rouchi A, ZamyadiM, et al. Dialysis in Iran. *Iran J Kidney Dis*. 2008; 2: 11-5.
- [6] <http://kidney.niddk.nih.gov>.
- [7] Shabankhani B, Kazemnejad A, Zaeri F, Espahbodi F, Haji Ahmadi M, Mirkazemi R. Survival Factors in Patients With End-stage Renal Disease in Mazandaran Province, Iran. *Iran J Kidney Dis*. 2016 Mar;10(2):79-84.
- [8] Cheadle AC, Dunkel Schetter C, Gaines Lanzi R, Reed Vance M, Sahadeo LS, Shalowitz MU. Community and Child Health Network (CCHN). Spiritual and Religious Resources in African American Women: Protection from Depressive Symptoms Following Birth. *Clin Psychol Sci*. 2015 Mar;3(2):283-291.
- [9] Cook CC. Addiction and spirituality. *Addiction*. 2004;99(5):539-51.
- [10] Rao A, Sibbritt D, Phillips JL, Hickman LD. Prayer or spiritual healing as adjuncts to conventional care: a cross sectional analysis of prevalence and characteristics of use among women. *BMJ Open*. 2015 Jun 25; 5(6):e007345.
- [11] Dunn KS, Horgas AL. The prevalence of prayer as a spiritual self-care modality in elders. *J Holist Nurs*. 2000; 18(4):337-51.
- [12] Egan R, Wood S, MacLeod R, Walker R. Spirituality in renal supportive care: A thematic review. *Healthcare*. 2015; 3: 1174-1193.
- [13] Yodchai K, Dunning T, Savage S, Hutchinson AM4. The role of religion and spirituality in coping with kidney disease and haemodialysis in Thailand. *Scand J Caring Sci*. 2016 Jun 21.
- [14] Egan R, Macleod R, Tiatia R, Wood S, Mountier J, Walker R. Spiritual care and kidney disease in NZ: a qualitative study with New Zealand renal specialists. *Nephrology (Carlton)*. 2014 Nov; 19(11):708-13.
- [15] Büssing A, Balzat HJ, Heusser P. Spiritual needs of patients with chronic pain diseases and cancer - validation of the spiritual needs questionnaire. *Eur J Med Res*. 2010 Jun 28; 15(6):266-73.
- [16] Underwood LG. The daily spiritual experience scale: overview and results. *Religions*. 2011; 2(1):29-50.
- [17] McCauley J, Tarpley MJ, Haaz S, Bartlett SJ. Daily spiritual experiences of older adults with and without arthritis and the relationship to health outcomes. *Arthritis Rheum*. 2008 Jan 15;59(1):122-8.

- [18] Khanna S, Greyson B. Daily spiritual experiences before and after near-death experiences. *Psychology of Religion and Spirituality*. 2014; 6(4):302–309.
- [19] Mahboub M, Ghahramani F, Shamohammadi Z, Parazdeh S. Relationship between daily spiritual experiences and fear of death in hemodialysis patients. *Journal of Biology and Today's World*. 2014 Jan; 3 (1): 7-11.
- [20] Hamrick N, Diefenbach MA. Religion and spirituality among patients with localized prostate cancer. *Palliat Support Care*. 2006;4(4):345-55.
- [21] Dehbashi F, Sabzevari S, Tirgari B. The relationship between spiritual well-being and hope in Hemodialysis patients referring to the Khatam Anbiya hospital in Zahedan 2013-2014. *Medical Ethics Journal*. 2014; 8(30): 77-97.
- [22] MartínezI BB, Custódio RP. Relationship between mental health and spiritual wellbeing among hemodialysis patients: a correlation study. *Sao Paulo Med J*. 2014; 132(1):23-7.
- [23] Ebrahimi H, Ashrafi Z, Eslampanah Gh, Noruzpur F. Relationship between spiritual well-being and quality of life in hemodialysis patients. *Journal of Nursing and Midwifery Sciences* 2014; 1(3): 41-48.
- [24] Eslami AA, Rabiei L, Khayri F, Rashidi Nooshabadi MR, Masoudi R. Sleep quality and spiritual well-being in hemodialysis patients. *Iran Red Crescent Med J*. 2014 Jul;16(7):e1715.