A LITERATURE REVIEW OF THERAPEUTIC SPIRITUAL-COMMUNITY MODEL (TSCM) TO REDUCE ANXIETY IN PATIENTS WITH HEMODIALYSIS

Sawiji ¹*, Faridah Binti Mohd Said ², Musheer Abdulwahid Aljaberi ³ and Akhmad Huda ⁴

 ¹ Universitas Muhammadiyah Gombong, Jalan Yos Sudarso 461, Sangkalputung, Gombong, Kebumen Regency, Central Java, Indonesia, 54411.
^{2,3} Lincoln University College, Jalan Stadium, SS 7/15, Kelana Jaya, 47301, Petaling Jaya, Selangor Darul Ehsan, Malaysia.
⁴ Sekolah Tinggi Ilmu Kesehatan Rajekwesi Bojonegoro, Jl. KH. Moch. Rosyid KM.05 Ngumpakdalem, Dander, Bojonegoro, East Java, 62171, Indonesia.
*Corresponding Author Email: sawiji@unimugo.ac.id

DOI: 10.5281/zenodo.13469120

Abstract

Chronic Kidney Disease (CKD) has a severe impact on poor psychological outcomes such as anxiety. Studies addressing anxiety have been used in the targeted population. Unfortunately, none of the studies discussed the therapeutic spiritual-community model (TSCM) in patients with hemodialysis. Therefore, the study intends to evaluate the use of the therapeutic spiritual-community model (TSCM) in patients with hemodialysis. The study used a literature review to assess publications on the therapeutic spiritual-community model (TSCM) in the group of patients. The results highlighted that implementing the therapeutic spiritual-community model (TSCM) with a specific duration is helpful to reduce anxiety. Further study is required to evaluate the intervention with different dosages or duration.

Keywords: Chronic Kidney Disease; Anxiety; Therapeutic Spiritual-Community Model; Hemodialysis; Nursing Care.

INTRODUCTION

Dialysis as an artificial replacement of kidney functioning is a continuous process of removing extra water from the blood of the human body (Vadakedath & Kandi, 2017). Dialysis is not able to completely perform lost kidney function, but, in some conditions, manages the diffusion and ultrafiltration in the kidney (Himmelfarb, Vanholder, Mehrotra, & Tonelli, 2020). This therapy is commonly used for patients with chronic kidney disease. CKD is a dysfunction of kidney function and/or structure (e.g., glomerular filtration rate [GFR] <60 mL/min/1.73 m2 or albuminuria ≥30 mg per 24 hours) for more than 3 months (Stevens, Levin, & kidney disease, 2013). The prevalence of CKD is 8% to 16% of the affected population (Chen, Knicely, & Grams, 2019). Additionally, the global incidence of CKD is 13.4% (11.7-15.1%) with 4.902 to 7.083 million patients that require replacement therapy (Lv & Zhang, 2019). This disease is caused by chronic glomerulonephritis (CGN; 36.8%), diabetic nephropathy (DN; 27.1%), and hypertensive nephropathy (HTN; 28.5%) (Sui et al., 2020). Several studies demonstrated that hemodialysis led to anxiety affecting psychological outcomes (Gerogianni et al., 2019). Anxiety is directly related to poorer clinical outcomes including non-adherence to treatment, problems with nutritional status and increase mortality rates (Cohen, Cukor, & Kimmel, 2016). Complementary therapy should be initiated to reduce the symptoms of anxiety among the patients.

Recently, studies focusing on anxiety in patients with hemodialysis have been published in the literature. Benson's relaxation technique reduces the stress and anxiety level of patients with hemodialysis (Mahdavi et al., 2020).

A study found that music represents a potential resource for clinical nursing intervention reducing state anxiety when performing hemodialysis (Melo et al., 2018). Aromatherapy with lavender can be used as a complementary, simple, and inexpensive therapy to deal with psychological issues (Jafari-Koulaee, Elyasi, Taraghi, Sadat Ilali, & Moosazadeh, 2020). Murottal Al-Qur'an therapy has a positive impact to reduce the anxiety level in patients with hemodialysis (Agusmita & Effendy, 2019). Relaxation techniques may help to alleviate anxiety when hemodialysis (Heidari Gorji, Davanloo, & Heidarigorji, 2014). Reducing stress and anxiety provides psychological resources to cope with the physical condition during hemodialysis.

Anxiety has been addressed by studies as it is important to prevent negative outcomes of dialysis. As the prognosis is often poor, the growing prevalence of CKD necessitates palliative and supportive programs including spiritual needs. The World Health Organization (WHO) emphasizes the vital role of spirituality in chronic illnesses (Vitillo & Puchalski, 2014), such as CKD. However, there remains limited evidence illustrating how best to integrate spirituality in patients with hemodialysis. In addition, the studies above mentioned complementary therapies that did not involve the spiritual aspect. Therefore, the review aims to evaluate the therapeutic spiritual community model (TSCM) in patients with hemodialysis. We believed that clinical nurses play a significant role in the care of patients with hemodialysis since they constitute the axis bringing together a continuous of interdisciplinary interventions.

METHODOLOGY

Study Design

This literature review study was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). To search more comprehensively, authors used informational online databases such as PubMed, Science Direct, EBSCO, Springer, Google, and Google Scholar.

Search Strategy and Inclusion/Exclusion Criteria

The search criteria involved were articles in English and Bahasa, discussing hemodialysis, the therapeutic spiritual-community model (TSCM), primary review studies, a complete study design included, and publications dated 2000 to 2022. Keywords were as follows: 'therapeutic spiritual-community model (TSCM) and hemodialysis', 'hemodialysis and spiritual care', 'chronic kidney disease and therapeutic spiritual-community model (TSCM)', 'therapeutic spiritual care and kidney injury', 'therapeutic spiritual approach and chronic kidney disease, and 'social support for hemodialysis'.

Ethical Approval

The article under consideration is a systematic review, therefore, the researcher's text is not applicable.

RESULTS

Search Result

A total of 351 articles were obtained and presented on a data process analysis using a PRISMA flow diagram (Figure 1). The data selected from the studies were assessed according to the article detail (title, journal, year of publication) as well as research details. The search process was focused on considering the criteria to minimize duplication. The researcher conducted a screening process by following four phases as follows: first, relevant titles and abstracts were identified using a computerized search for the main objective of the study. All studies focusing on spiritual care and social support on hemodialysis were collected (n = 351).

In the first phase, several articles were due to duplication, irrelevance to the topic, not discussing the topic in detail, and editorial and book chapters (n = 183). Second, the remaining articles (n = 168) were also screened and then disregarded after considering titles and abstracts (n = 111). Third, screening full text by considering criteria (n = 57), then articles were excluded due to failing to meet the criteria (n = 45). Fourth, 12 articles discussing spiritual care and social support on hemodialysis were included, compared then analyzed **(Table 1)**.

Characteristics of the Selected Studies

A total of 12 studies were identified. Overall, the articles obtained examined patients with hemodialysis using various research methods, namely 9 studies using descriptive studies, 1 study using randomized controlled trials (RCT), and 2 studies using literature reviews. There was 1 study that used comparison therapy and the other 11 studies that did not use it.

The countries studied are Greece (Fradelos et al., 2015), Iran (Tavassoli, Darvishpour, Mansour-Ghanaei, & Atrkarroushan, 2019), Turkey (Durmuş, M., & Ekinci, M., 2022), Iran (Rambod, Pasyar, & Mokhtarizadeh, 2020), Jordan (Alshraifeen et al., 2020), Brazil (Martínez & Custódio, 2014), Greece (Lilympaki et al., 2016), Iran (Davaridolatabadi & Abdeyazdan, 2016), USA (Hoang, Green, & Bonner, 2022), USA (Jaberi et al., 2022), Turkey (Tezel, Karabulutlu, & Sahin, 2011), and Greece (Gerogianni et al., 2019).

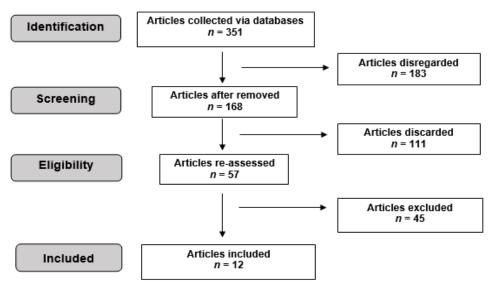


Figure 1: Article Selecting Process

Themes

Table 1 delineated the attributes of the scholarly articles included in this literature review. The present study conducted a thematic analysis of the myths identified in the reviewed literature. The findings revealed that all of the myths could be classified into

distinct overarching themes: Author and year of publication, Participants, Method, Comparison therapy (if any) and Outcomes.

DISCUSSION

Patients with CKD and hemodialysis deal with problems in many aspects of life including social, stress and anxiety. Most patients depend on health care services for replacement therapies like hemodialysis. In addition, they are demanded to adapt to new experiences changing in their daily life, not only restrictions in consuming food and or liquid. Hemodialysis often led to psychological problems among patients. Anxiety and stress have a devastating effect on individuals with hemodialysis, provoking mortality, hospitalizations, and costs of treatment (Um e, Khan, & Ahmad, 2020). Hemodialysis also changes the lifestyle, and adherence to therapy along with deterioration in performance status (Senmar et al., 2020), needing a comprehensive intervention by healthcare professionals.

Spiritual care seems to have a potential impact on the psychological status (e.g., anxiety) of patients with hemodialysis. Assessing and addressing spiritual care for patients with hemodialysis is fundamental as it has a positive outcome on anxiety and life expectancy (Tavassoli, Darvishpour, Mansour-Ghanaei, & Atrkarroushan, 2019; Durmuş, M., & Ekinci, M. (2022). Theoretically, spirituality is characterized by an understanding of the meaning in life, experiences, and expressions of the mind, in a unique and dynamic process (Fradelos et al., 2015). Spirituality and religion are important aspects that constitute source support to deal with difficulties during hemodialysis (Fradelos, 2021). Integrating spiritual well-being evaluation and care increases the quality of care and improve mental health outcome for patients with hemodialysis. Increasing religiousness and spirituality are mechanisms allowing the search for meaning in life and reducing patients' anxiety (Rambod, Pasyar, & Mokhtarizadeh, 2020; Alshraifeen et al., 2020). Furthermore, the ability to find a coping strategy linked with religion to act and move based on the prescribed treatment's final goals. However, a lack of hope may leave the patient without perspective and passively expecting to die. Hope, as a part of the spiritual aspect, does encourage the patient with hemodialysis to deal with struggle and seek clinical improvement of their symptoms (Carosella, 2002; Martínez & Custódio, 2014).

No	Author and year of publication	Participants	Method	Comparis on therapy (If any)	Outcomes
1	Fradelos et al., 2015	Patients with hemodialysis	Literature review	None	spirituality improves outcomes
2	Tavassoli, Darvishpour, Mansour-Ghanaei, & Atrkarroushan, 2019	Patients with hemodialysis	Descriptive study	None	Spiritual care improves psychological outcomes
3	Durmuş, M., & Ekinci, M., 2022	Patients with hemodialysis	RCT	Usual care	Spiritual care reduce anxiety
4	Rambod, Pasyar, & Mokhtarizadeh, 2020	Patients with hemodialysis	Descriptive study	None	Spiritual care improve psychological outcomes
5	Alshraifeen et al., 2020	Patients with hemodialysis	Descriptive study	None	Spiritual care to improve outcomes
6	Martínez & Custódio, 2014	Patients with hemodialysis	Descriptive study	None	Spiritual care is important
7	Lilympaki et al., 2016	Patients with hemodialysis	Descriptive study	None	Phyco-social evaluation is essential

Table 1: Study finding

8	Davaridolatabadi & Abdeyazdan, 2016	Patients with hemodialysis	Descriptive study	None	The importance of social support
9	Hoang, Green, & Bonner, 2022	Patients with hemodialysis	Descriptive study	None	Social support reduce anxiety
10	Jaberi et al., 2022	Patients with hemodialysis	Descriptive study	None	Social support impact status
11	Tezel, Karabulutlu, & Sahin, 2011	Patients with hemodialysis	Descriptive study	None	Low social support reduces outcomes
12	Gerogianni et al., 2019	Patients with hemodialysis	Literature review	None	Health education is important

Social support is associated with improved health outcomes in chronic illnesses (e.g., hemodialysis) via various mechanisms for example decreased status of depression, stress reduction, improvement of quality of life, assistance to access health services, adherence to treatment, and improved immune system (Cohen et al., 2007). Higher levels of social support have been linked to survival in several studies of patients with renal disease (Lilympaki et al., 2016; Davaridolatabadi & Abdeyazdan, 2016).

The literature has indicated that having sufficient social support resources may reduce emotional stress and help enhance adaptation skills among patients with hemodialysis (Hoang, Green, & Bonner, 2022; Jaberi, Mohammadi, Adib, Maroufizadeh, & Ashrafi, 2022; Tezel, Karabulutlu, & Sahin, 2011; Gerogianni, Babatsikou, Polikandrioti, & Grapsa, 2019). Due to this reason, clinical nurses have the responsibility for providing social support by visiting the patients at home, monitoring their chronic conditions along with assessing their overall health behavior. In addition, combination with spiritual care will contribute to the outcome's improvements. However, studies using spiritual and community aspects among patients with hemodialysis are limited and even unexplored. The gaps are potential for researching this specific area of interest.

CONCLUSION

Patients with hemodialysis have previously indicated that they would like nurses to help with their spiritual issues. Despite the presence of supportive care practice, studies repeatedly presented gaps in the provision of hemodialysis care and, hence, spiritual care along with social support should be integrated into the training and continuous education. Also, community house hemodialysis is a submodality of home hemodialysis that helps patients perform hemodialysis in a shared house. Further study is needed to evaluate the benefits of the therapeutic spiritual-community model (TSCM) by using a larger sample size among the group of patients.

RECOMMENDATION

1. For Health Services

The health services should improve their educational offerings regarding the significance of assessing Therapeutic Spiritual-Community Model (TSCM) to reduce anxiety in patients with hemodialysis

2. For Educational Institutions

The present study may serve as a point of reference for students, particularly those pursuing nursing at Universitas Muhammadiyah Gombong of Indonesia and Lincoln University College of Malaysia, to conduct further research and enhance their understanding of health science, particularly in the domain of healthcare.

3. For the Community

The study aims to serve as a valuable resource for the community by examining the effectiveness of Therapeutic Spiritual-Community Model (TSCM) to reduce anxiety in patients with hemodialysis.

4. For Researchers

The conducted study contributes to the existing body of knowledge on the assessment of the effectiveness of Therapeutic Spiritual-Community Model (TSCM) to reduce anxiety in patients with hemodialysis. In addition, future studies may explore other factors that affect the utilization of Therapeutic Spiritual-Community Model (TSCM) to determine the key factors that reduce the anxiety level of hemodialysis patients.

Suggestion

Good cooperation of patients and nurses should be done to obtain the optimal results. The therapy's effectiveness should be evaluated after hemodialysis as a part of nursing care process involving family members using different dosages and populations.

Conflict of Interest

The authors declare that they have no conflict of interests.

Acknowledgement

The authors thank all the people who contributed to this study including lecturers and researchers at Universitas Muhammadiyah Gombong of Indonesia and Lincoln University College of Malaysia.

References

- 1) Agusmita, A., & Effendy, E. (2019). An Anxiety Case Report with Murotal Alqur'an Approach in Woman Who Got Hemodialysis in Universitas Sumatera Utara Hospital, Medan. Open access Macedonian journal of medical sciences, 7(16), 2695–2697. https://doi.org/10.3889/oamjms.2019.420
- Alshraifeen, A., Alnuaimi, K., Al-Rawashdeh, S., Ashour, A., Al-Ghabeesh, S., & Al-Smadi, A. (2020). Spirituality, Anxiety and Depression Among People Receiving Hemodialysis Treatment in Jordan: A Cross-Sectional Study. Journal of religion and health, 59(5), 2414–2429. https://doi.org/10.1007/s10943-020-00988-8
- 3) Carosella J. (2002). Incorporating spirituality into the delivery of dialysis care: one team's perspective. Advances in renal replacement therapy, 9(2), 149–151. https://doi.org/10.1053/jarr.2002.30467
- 4) Chen, T. K., Knicely, D. H., & Grams, M. E. (2019). Chronic Kidney Disease Diagnosis and Management: A Review. JAMA, 322(13), 1294–1304. https://doi.org/10.1001/jama.2019.14745
- 5) Cohen, S. D., Cukor, D., & Kimmel, P. L. (2016). Anxiety in Patients Treated with Hemodialysis. Clinical journal of the American Society of Nephrology : CJASN, 11(12), 2250–2255. https://doi.org/10.2215/CJN.02590316
- Cohen, S. D., Sharma, T., Acquaviva, K., Peterson, R. A., Patel, S. S., & Kimmel, P. L. (2007). Social support and chronic kidney disease: an update. Advances in chronic kidney disease, 14(4), 335–344. https://doi.org/10.1053/j.ackd.2007.04.007
- 7) Davaridolatabadi, E., & Abdeyazdan, G. (2016). The Relation between Perceived Social Support and Anxiety in Patients under Hemodialysis. Electronic physician, 8(3), 2144–2149. https://doi.org/10.19082/2144
- 8) Durmuş, M., & Ekinci, M. (2022). The Effect of Spiritual Care on Anxiety and Depression Level in Patients Receiving Hemodialysis Treatment: a Randomized Controlled Trial. Journal of religion and health, 61(3), 2041–2055. https://doi.org/10.1007/s10943-021-01386-4

- 9) Fradelos E. C. (2021). Spiritual Well-Being and Associated Factors in End-Stage Renal Disease. TheScientificWorldJournal, 2021, 6636854. https://doi.org/10.1155/2021/6636854
- 10) Fradelos, E. C., Tzavella, F., Koukia, E., Papathanasiou, I. V., Alikari, V., Stathoulis, J., Panoutsopoulos, G., & Zyga, S. (2015). Integrating chronic kidney disease patient's spirituality in their care: health benefits and research perspectives. Materia socio-medica, 27(5), 354–358. https://doi.org/10.5455/msm.2015.27.354-358
- 11) Gerogianni, G., Babatsikou, F., Polikandrioti, M., & Grapsa, E. (2019). Management of anxiety and depression in haemodialysis patients: the role of non-pharmacological methods. International urology and nephrology, 51(1), 113–118. https://doi.org/10.1007/s11255-018-2022-7
- 12) Gerogianni, G., Polikandrioti, M., Babatsikou, F., Zyga, S., Alikari, V., Vasilopoulos, G., Gerogianni, S., & Grapsa, E. (2019). Anxiety-Depression of Dialysis Patients and Their Caregivers. Medicina (Kaunas, Lithuania), 55(5), 168. https://doi.org/10.3390/medicina55050168
- 13) Heidari Gorji, M. A., Davanloo, A. A., & Heidarigorji, A. M. (2014). The efficacy of relaxation training on stress, anxiety, and pain perception in hemodialysis patients. Indian journal of nephrology, 24(6), 356–361. https://doi.org/10.4103/0971-4065.132998
- 14) Himmelfarb, J., Vanholder, R., Mehrotra, R., & Tonelli, M. (2020). The current and future landscape of dialysis. Nature reviews. Nephrology, 16(10), 573–585. https://doi.org/10.1038/s41581-020-0315-4
- 15) Hoang, V. L., Green, T., & Bonner, A. (2022). Examining social support, psychological status and health-related quality of life in people receiving haemodialysis. Journal of renal care, 48(2), 102– 111. https://doi.org/10.1111/jorc.12380
- 16) Jaberi, M., Mohammadi, T. K., Adib, M., Maroufizadeh, S., & Ashrafi, S. (2022). The Relationship of Death Anxiety With Quality of Life and Social Support in Hemodialysis Patients. Omega, 302228221129672. Advance online publication. https://doi.org/10.1177/00302228221129672
- 17) Jafari-Koulaee, A., Elyasi, F., Taraghi, Z., Sadat Ilali, E., & Moosazadeh, M. (2020). A Systematic Review of the Effects of Aromatherapy with Lavender Essential Oil on Depression. Central Asian journal of global health, 9(1), e442. https://doi.org/10.5195/cajgh.2020.442
- 18) Lilympaki, I., Makri, A., Vlantousi, K., Koutelekos, I., Babatsikou, F., & Polikandrioti, M. (2016). Effect of perceived social support on the levels of anxiety and depression of hemodialysis patients. Materia socio-medica, 28(5), 361–365. https://doi.org/10.5455/msm.2016.28.361-365
- 19) Lv, J. C., & Zhang, L. X. (2019). Prevalence and Disease Burden of Chronic Kidney Disease. Advances in experimental medicine and biology, 1165, 3–15. https://doi.org/10.1007/978-981-13-8871-2_1
- 20) Mahdavi, A., Gorji, M. A., Gorji, A. M., Yazdani, J., & Ardebil, M. D. (2013). Implementing Benson's Relaxation Training in Hemodialysis Patients: Changes in Perceived Stress, Anxiety, and Depression. North American journal of medical sciences, 5(9), 536–540. https://doi.org/10.4103/1947-2714.118917
- 21) Melo, G., Rodrigues, A. B., Firmeza, M. A., Grangeiro, A., Oliveira, P. P., & Caetano, J. Á. (2018). Musical intervention on anxiety and vital parameters of chronic renal patients: a randomized clinical trial. Revista latino-americana de enfermagem, 26, e2978. https://doi.org/10.1590/1518-8345.2123.2978
- 22) Rambod, M., Pasyar, N., & Mokhtarizadeh, M. (2020). Psychosocial, Spiritual, and Biomedical Predictors of Hope in Hemodialysis Patients. International journal of nephrology and renovascular disease, 13, 163–169. https://doi.org/10.2147/IJNRD.S255045
- 23) Senmar, M., Razaghpoor, A., Mousavi, A. S., Zarrinkolah, F., Esmaeili, F., & Rafiei, H. (2020). Psychological Symptoms in Patients on Dialysis and Their Relationship with Spiritual Well-Being. Florence Nightingale journal of nursing, 28(3), 243–249. https://doi.org/10.5152/FNJN.2020.19061

- 24) Stevens, P. E., Levin, A., & kidney disease: Improving Global Outcomes Chronic Kidney Disease Guideline Development Work Group Members (2013). Evaluation and management of chronic kidney disease: synopsis of the kidney disease: improving global outcomes 2012 clinical practice guideline. Annals of internal medicine, 158(11), 825–830. https://doi.org/10.7326/0003-4819-158-11-201306040-00007
- 25) Sui, Z., Wang, J., Cabrera, C., Wei, J., Wang, M., & Zuo, L. (2020). Aetiology of chronic kidney disease and risk factors for disease progression in Chinese subjects: A single-centre retrospective study in Beijing. Nephrology (Carlton, Vic.), 25(9), 714–722. https://doi.org/10.1111/nep.13714
- 26) Tavassoli, N., Darvishpour, A., Mansour-Ghanaei, R., & Atrkarroushan, Z. (2019). A correlational study of hope and its relationship with spiritual health on hemodialysis patients. Journal of education and health promotion, 8, 146. https://doi.org/10.4103/jehp.jehp_461_18
- 27) Tezel, A., Karabulutlu, E., & Sahin, O. (2011). Depression and perceived social support from family in Turkish patients with chronic renal failure treated by hemodialysis. Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences, 16(5), 666–673.
- 28) Vadakedath, S., & Kandi, V. (2017). Dialysis: A Review of the Mechanisms Underlying Complications in the Management of Chronic Renal Failure. Cureus, 9(8), e1603. https://doi.org/10.7759/cureus.1603
- 29) Vitillo, R., & Puchalski, C. (2014). World Health Organization authorities promote greater attention and action on palliative care. Journal of palliative medicine, 17(9), 988–989. https://doi.org/10.1089/jpm.2014.9411