

Factors affecting supportive needs in hemodialysis patients: A literature review

Attieh Nikkhah¹, Shohreh Kolagari², Mahnaz Modanloo²

¹Nursing Research Center, Department of Medical-Surgical Nursing, Golestan University of Medical Sciences, Gorgan,

²Nursing Research Center, Faculty of Nursing and Midwifery, Golestan University of Medical Sciences, Gorgan, Iran

ABSTRACT

Background: Explaining the factors affecting supportive needs of patients under hemodialysis seems to be essential to supply their needs. Also, it can help healthcare providers to make favorite decisions about care planning to improve the patients' quality of life. **Objective:** This study was conducted to determine the factors affecting supportive needs in hemodialysis patients using a literature review. **Methods:** This literature review was carried out in PubMed, MEDLINE, SCOPUS, SID, Magiran, and Iranmedex. Data based were searched from 2000 to 2018 using the keywords of "Need", "Supportive Need", and "Hemodialysis". In a total of 239 full texts of published articles, 12 such relevant articles were selected. **Results:** The finding showed that the factors affecting the supportive need of patients can be categorised into two: internal and external factors. Internal factors consist of patient-related factors, disease-related factors, and treatment-related factors. External factors consist of personal living circumstances, health system-related factors and socioeconomic factors. **Conclusion:** By explaining the factors affecting supportive need in hemodialysis patients, it may help clinicians and researchers to identify the patients' need, developing an appropriate questionnaire, and implementing suitable intervention. As a result, it can improve their quality of life.

Keywords: Hemodialysis, literature review, patient, supportive needs

Introduction

Renal failure is a chronic and progressive disease,^[1] with rapidly increasing incidence and prevalence throughout the world that varies in different regions due to environmental, ethnic, social, economic, and rural-urban differences. The prevalence of chronic renal failure (CRF) in European countries varies from 3.31% to 17.3%.^[2] A study predicted the prevalence of renal failure in 30-year-old and older adults in the United States will increase from 13.2% at present to 14.4% by 2020, and 16.7% by 2030.^[3]

The scientists believe that consequences of economic deprivation and high treatment costs have increased the suffering of CRF

patients. Although patients in the end stages of renal failure experience many problems, their quality of life is affected by hemodialysis as a time-consuming treatment and subsequent social and physical activity limitations, increased disability, and impaired functioning.^[4] Moreover, in addition to several stressors related to disease and treatment including dietary limitations, loss of mobility, hypotension, muscle cramps, and limited activity,^[5] patients also suffer from psychological burdens of hemodialysis such as depression and anxiety.^[6] As a result, these factors generally highlight the importance of their needs and interventions to obviate the patient's needs.

Care and cure of hemodialysis patients may leads to potential responsibilities for the healthcare providers, since patients with chronic patients have many needs. Assessment and identification of their needs and affecting factor can help healthcare providers to make a favorite decisions about care planning for these

Address for correspondence: Dr. Mahnaz Modanloo, Nursing Research Center, Golestan University of Medical Sciences, Postal Code: 4917136536, Gorgan, Iran. E-mail: modanloo.mahnaz@goums.ac.ir

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patients,^[7] to improve self-management and outcomes of patients.^[8] Also, the assessment of the patient's need, allowing direct indication of resources, is required.^[9]

Research on need is a growing field, but it lacks a clear conceptual definition that is applicable in clinical practice and research. Accordingly, explaining the concept of supportive needs and affecting factor seems to be essential to clarify the concept in hemodialysis patients. There are numerous studies on the explanation of supportive needs in chronic patients but most of them are focusing on cancer.^[9,10]

Due to the lack of studies on affecting factor in hemodialysis patients, this study was conducted to evaluate factors affecting supportive needs in hemodialysis patients.

Method

Searching strategy

The search was conducted in international databases; PubMed, MEDLINE, and SCOPUS using "Need, Supportive Need and Hemodialysis" keywords, and local databases; and SID, Magiran, and Iranmedex using the Farsi equivalent of these keywords. Studies were included if they were based on empirical or theoretical research; were published in English or Farsi language; were qualitative, quantitative and mixed methods and on medical and nursing area from 2000 to 2018.

Following the systematic search conducted in the mentioned databases, the records were imported in EndNote and were screened as follows:

- Assessment of the search results and omits the duplications.
- Assessment of titles (12,845 titles) to select the eligible abstracts.
- Assessment of abstracts (239 abstracts) to select articles [Figure 1].

Finally, analysis and evaluation of the retrieved full texts of articles was carried out, and a total of eight articles were selected according to the study objectives. To complete the search, the references of articles were also reviewed. This step led to the selection of two additional articles. Through manual search, two articles were also selected. Finally, 12 relevant retrieved articles were reviewed [Table 1].

In the present study, the process of data analysis began by review of the retrieved full texts. Articles were reviewed several times, and data were extracted according to the purpose of study.

Results

The factors in related to need which extracted from the reviewed literature showed that need is a multidimensional concept and emerges in the health system with a series of elements such as: patient, healthcare provider, and environment, which can affect the patients' needs. These factors can be categorized into two internal and external factors that interact with each other.

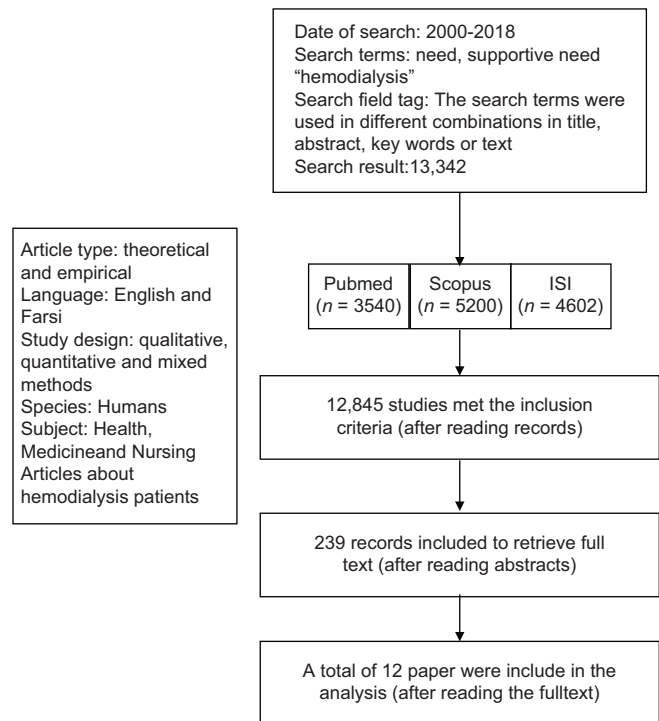


Figure 1: The selection process of articles in the literature review process

Internal factors

The review of relevant articles showed that how need is affected by some internal factors; these factors category included three subcategories: patient-related factors, disease-related factors, and treatment-related factors.

Patient-related factors

Age, physio-, psycho-spiritual factors, cognitive changes, knowledge, and education are factors that affect the patients' needs. Psychological factors relating to the patients' needs include belief, anxiety, depression, change in the body image, loss of sexual functioning, low self-esteem, uncertainty, hopelessness, fear, anger, role conflict' and threat to identity. The patients' life skills including communication, problem-solving' and decision-making are also other patient-related factors affecting the patients' needs.^[11-15]

Disease-related factors

Many of the features of renal failure have been identified as factors affecting on the patients' need. Disease-related factors include dietary limitations, poor treatment outcomes, life limitations; and physical, mental, psychological challenges through change in social performance. On the other hand, the stage of the disease is also another factor affecting the patients' needs.^[11,16]

Treatment-related factors

Characteristics of the administered treatment such as type and number of medication, dietary regimen, physical activities,

Table 1: Studies reviewed for data extraction (n=12)

| Authors (years) | Topic | Journal |
|--|---|---------------------------|
| Axelsson <i>et al.</i> (2018) ^[24] | Unmet Palliative Care Needs Among Patients With End-Stage Kidney Disease: A National Registry Study About the Last Week of Life | J Pain Symptom Manage |
| Bayoumi and Alwakeel (2012) ^[25] | Hemodialysis Patients Needs Priorities According to Maslows' Hierarchy and Quality of Life | J Palliative Care Med |
| Clarkson (2010) ^[11] | Life on dialysis: A lived experience. | NephrolNurs J |
| Culp <i>et al.</i> (2016) ^[23] | Unmet Supportive Care Needs in U.S. Dialysis Centers and Lack of Knowledge of Available Resources to Address Them | J Pain Symptom Manage |
| Davison <i>et al.</i> (2010) ^[27] | Existential and Supportive Care Needs Among Patients with Chronic Kidney Disease | J Pain Symptom Manage |
| Davison and Jassal (2016) ^[13] | Supportive Care: Integration of Patient-Centered Kidney Care to Manage Symptoms and Geriatric Syndromes | Clin J Am SocNephrol |
| Duke <i>et al.</i> (2003) ^[9] | Evaluation of an Instrument to Assess the Needs of Men Diagnosed with Prostate Carcinoma | CANCER |
| Liao <i>et al.</i> (2012) ^[10] | Changes and Predictors of Unmet Supportive Care Needs in Taiwanese Women With Newly Diagnosed Breast Cancer | OncolNurs Forum |
| Sugisawa <i>et al.</i> (2018) ^[22] | Unmet service needs evaluated by case managers among disabled patients on hemodialysis in Japan | Int J NephrolRenovascDis |
| Klang <i>et al.</i> (1999) ^[15] | Predialysis education helps patients choose dialysis modality and increases disease-specific knowledge | J AdvNurs |
| Moss (2017) ^[12] | Integrating Supportive Care Principles Into Dialysis Decision Making: A Primer for Palliative Medicine Providers | J Pain Symptom Manage |
| Shahgholian <i>et al.</i> (2015) ^[16] | Supporting hemodialysis patients: A phenomenological study | Iran J Nurs Midwifery Res |

complications during dialysis, and medication side-effects are treatment-related factors affecting the need of hemodialysis patients. Other factors include cardiovascular problems, digestive disorders, chronic fatigue, itching, anxiety, depression, and pain following needle insertion into a fistula. In addition, hemodialysis patients have to spend long periods in the dialysis unit, which often interferes with their work and may lead to job losses.^[16-21]

External factors

The category “external factors” explain how the patients’ needs are affected by their social activities. External factors can be classified into three subcategories including: personal living circumstances, health system-related factors, and socioeconomic statuses of patients.

Personal living circumstances

Lack of access to services at home-community, role change, lifestyle change, life limitations (limitations in travel, daily living activities, income, social contacts), dependence and impaired communication with significant people in life, economic and occupational aspects, and reduced family roles are external factors associated with personal living conditions that affect the patients’ needs.^[11,16,22,23]

Health system-related factors

Health system-related factors affecting need include poor supportive services, access to facilities or equipment, and health care professional support. Insufficient information received from the healthcare providers, emotional support from healthcare providers, lack of professional counseling, and proper hospital follow-up are also among factors associated with the needs of patients under hemodialysis.^[14,23]

Socioeconomic status of patients

The patient’s needs are impacted by economic status. Furthermore, poor income and high cost of treatment are factors that affect the patients’ needs. Social support is another important factor that affects the patients’ needs. All significant people including family, friends, colleagues’ and healthcare providers can provide emotional support.^[11,24]

Discussion

Hemodialysis patients experience several change in daily living and challenges in their lifestyle, which create a multiple needs in these patients. Recognizing affecting factors of need in hemodialysis patients is effective as a guide to managing their need and improving their quality of life.^[25]

In patients under hemodialysis, CRF leads to several physiological, cultural, and religious challenges for the patient and family, and overcoming these challenges is only possible through comprehensive support for the patients.^[22] Hemodialysis patients spend a long part of their lives undergoing treatment, and this leads to many physical, social, and financial complications for them. Complications in these patients include anxiety and depression, low self-esteem, lifestyle change, and impaired identity. Life limitations and poor supportive services lead to a conflict between dependence and independence in hemodialysis patients,^[26] and all these increase the needs of them.

Hemodialysis patients faced with challenges such as medical conditions, loss of previous routine daily living and body, mind, and spirit challenges. Life restrictions include limitation in travel, income, social contact, and daily diet and fluid restrictions.^[11]

These challenges create multiple needs for patients and require get support from family, friends, and support group.

Hemodialysis patients have many problems during alternative treatment, and the effect of needs on different aspects of life makes implementation of care policies necessary. The priority of the development of supportive cares in hemodialysis patients can include guidelines to help decision-making of critically ill patients, presence of supportive cares in dialysis centers, availability of supportive care counseling, and appropriate education of the patients, families, nurses, and physicians.^[23] Supportive care counseling in hemodialysis patients can be considered as part of the quality of care in patients.

Conclusion

Through review of literature in the present study, affecting factors of need in hemodialysis patients were emerged. Like in other groups of patients, there are different reasons for raising the needs in hemodialysis patients. By defining of need and it's affecting factors in hemodialysis patients, it is possible to design a suitable measurement and effective intervention.

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Conflicts of interest

There are no conflicts of interest.

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