

REVIEW ARTICLE

Quality of Life among Family Caregivers of Patients on Hemodialysis and its Relevant Factors: A Systematic Review

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ABSTRACT

Background: Family caregivers are considered as hidden patients experiencing physical and mental disorders. This affects the quality of not only their lives but also the health care provided to patients. This study aimed to investigate the quality of life (QOL) and its related factors among the caregivers of patients undergoing hemodialysis.

Methods: This systematic review was conducted based on the eight-step guidelines presented by the York University. The databases relevant to the medical field including Nursing and Allied Health, Web of Science, Scopus, Pubmed, Embase, PsycINFO and Psychology Library were used. Finally, 12 articles observing the inclusion criteria and with regard to the research questions were found. The data obtained from these articles were summarized, classified, and analyzed.

Results: QOL among Family Caregivers of Patients on Hemodialysis is low, compared to the general population; however, their QOL is higher than the patients under their care. Factors relevant to the QOL for caregivers including age, gender, perceived social support, perceived burden of care, affliction with other diseases (lupus, hypertension, hypothyroidism and depression), intellectual understanding of the limitations of the patient's disease in their daily life, employment of adaptation strategies, better marital relationships, accepting self and family relationship with the patient (mother and wife). Furthermore, the factors associated with care takers affecting the quality of caregivers' lives were age, QOL and the type of treatment.

Conclusions: Caregivers of patients undergoing hemodialysis enjoyed low QOL. Since there is a direct relationship between family caregivers' quality and patients' QOL, health care system and health policy makers should pay more attention to family caregivers.

KEYWORDS: Quality of life, QOL, Family caregiver, Dialysis

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INTRODUCTION

One of the most important changes emerged in the health care system is the epidemiologic transition from acute to chronic diseases, which has increased the number of disabled patients.¹ In the meantime, chronic renal failure affecting 5 to 10 percent of the world's population has been raised as a major public health concern in the world and 50 million people in the world suffer from this disease and this figure continues to rise. Early death and loss of quality of life (QOL) are the consequences of this disease.² Dialysis is a method used to improve the conditions of patients with chronic kidney failure. This complex treatment procedure leads to fundamental changes in the patients' normal life and their increased dependence upon the caregivers.^{3,4} Evidence collected over the past two decades on the health impact of caregivers has convinced policy makers that care is an important health issue.⁵

In Iran, people intimately adhere to the conventions and strong emotional relationships between family members there. Family members are directly affected by the whole family and have a special commitment to each other. This traditional structure is an important source of support for the patient.⁶ Unfortunately, in the context of health care in Iran, the needs and problems of family caregivers have not still not been addressed effectively and they don't receive appropriate support.⁷ The concept of care is a process of taking care activities and its associated responsibilities.⁸

In addition to physical pressure, it bears all features mentioned for the chronic stress since it is associated with high levels of unpredictability and uncontrollability. These factors cause the secondary stress in different aspects of life, including work and family relationships. Stress-making factors to which caregivers are exposed result in mental stress and disorder in health behaviors, which in turn stimulate physiological responses, illness and even death.⁵ The term 'caregiver' refers to those who, during the treatment procedure,

are mostly involved in looking after the patient and help the patient to handle and adopt with that chronic disease.⁹ Caregivers are vital and national source of health care and families are often the first source of home health care.⁴ Family-centered care is a recognized approach in providing holistic health care which necessitates the cooperation between the patients, family and health care professionals to provide quality health care.¹⁰ Despite the effectiveness cost of this type of care, overreliance on families without taking necessary supports results in adverse effects on the family system and on the caregivers' physical, mental and social health.^{5,11} Hence, not only care needs are required for the dialysis patients, but also the family caregivers and supporting them should be considered by nurses. This contributes to the continuity of the patient's care and enhances the quality of the care provided to patients. It also plays a critical role in improving the health and QOL for family members.⁸ Families are the best care-giving source for patients undergoing hemodialysis and have a fundamental role in managing diseases and improving the QOL in patients with chronic renal failure undergoing hemodialysis.^{4,7} Dialysis treatment is defined as a disease for the family. Family members of the patients undergoing dialysis treatment act as a partner in this process and are most affected by this treatment procedure.^{10,12} Providing medicines, having frequent visits to the hospital or other medical visits, providing personal hygiene, preparing meals, providing the patients with physical, emotional and social support, and adhering to some restrictions during hemodialysis because of the patients' health are excruciating for caregivers. These problems make caregivers give superiority to the patient's needs compared to their own needs and consequently devote less time to their health-promoting behaviors and this, in turn, has adverse effects on their health, well-being, and QOL.^{7,12,13}

In this regard, some problems and disorders including stress, depression, anxiety, lack of confidence, fatigue, social

isolation, frustration, lack of independence, and financial and communication constraints as well as loss of the QOL are reported for caregivers, which affect their physical, social and emotional well-being.^{4,9,14,15} In addition to what was mentioned above, the caregivers' needs are neglected or not given much priority.^{15,16} However, the physical and mental damages to caregivers directly affect the quality of care provided to patients and will be followed by inadequate care of the patients and eventually leaving them.¹⁶⁻¹⁸

Although most studies have focused on the negative consequences of care, the caregivers in some studies have mentioned the positive outcomes of taking care such as increased pleasure, satisfaction and evolution.¹⁹ Despite such contradictions, the clear point in these studies is that the physical and mental health of family caregivers potentially affects the health, welfare and successful rehabilitation of patients with chronic diseases. One of the most important indicators of health and well-being is the QOL.² Health-related QOL refers to cognitive understanding of the impact of the disease or the treatment on ones' health and his overall QOL and includes physical, mental and social dimensions. Health-related QOL is clearly affected by individuals' ideas, life experiences, personality and expectations. Health-related QOL is a predictive indicator of the disease outcomes and a valuable research tool to evaluate the effectiveness of therapeutic interventions, the patient survival, hospitalization, and health policies.^{3,20} Therefore, this systematic review was designed to answer the following questions:

1. How is the QOL for family caregivers of patients on hemodialysis?

2. What factors are related to the QOL for Family Caregivers of Patients on Hemodialysis?

MATERIALS AND METHODS

This study is a systematic review in which investigations and data extraction were conducted according to the University of

York Center for Reviews and Dissemination Guidance, edition 2009.²¹ The systematic review of the literature included the following steps:

1. Formulation of the research questions, indicating the systematic review of the texts
2. Search strategy used for the databases
3. Criteria for selecting studies
4. Evaluation of the tools used to assess the quality of studies
5. Selection of the studies meeting the inclusion criteria
6. Textual data mining and analysis
7. Combination of data
8. Publication of the the results.²¹

Step 1: Formulating the research questions

The research questions raised in this survey were as follows:

1. How is the QOL for family caregivers of patients on hemodialysis?

2. What factors ate related to the QOL for Family Caregivers of Patients on Hemodialysis?

Step 2: Search strategy used for the databases

In this study, an extensive search was done to find the articles related to the field of medicine and psychology databases using key words in the form of MESH including Hemodialysis, Caregiver, Quality of life or QOL and Health-related QOL in 7 databases Nursing and Allied Health, Scopus, Pubmed, Embase, PsycINFO, Web of Science and Library Psychology from June to July 2016, without considering the time limits of the study. To increase the sensitivity of searching, most prestigious medical databases were used and the AND operator was employed to increase the search features. The search strategy was as follows:

terms:“(caregivers [Title/Abstract] OR family caregivers [Title/Abstract]) AND (dialysis [Title/Abstract]) AND (quality of life OR health related quality of Life [Title/Abstract])”.

In addition to the electronic database search, all references used in the relevant articles were also assessed.

Step 3: Criteria for selecting studies

Eligibility criteria in this study included all English-language articles regardless of the time limit until 2016 and related to the research question. Emphasis was on descriptive and observational studies, review articles and qualitative studies on the QOL for family caregiver of patients on hemodialysis. Exclusion criteria included editorial report, commentary, bulletin, book review, short introductory and case as books, magazines and reports of conferences since they could not provide answers to research questions due to their limitations, conciseness and lack of potentials for quality evaluation. In addition, anonymous and unscientific papers as well as those not corresponding to the research topic or those written in a language not English were excluded. Regardless of the time limit until 2016, 1368 titles were found. As shown in Figure 1, after removing duplicate articles and those not meeting the study criteria, 24 articles were considered suitable to be included in the initial evaluation. After reviewing the articles, a final pool of 12 articles were included. These

imported articles were observational studies and written in the period 2000 to 2014. In the present study, in addition to the electronic search, all references used in the final 12 articles were also assessed and this led to no new article to be included in this study. The selection process of the articles is shown in Figure 1.

Steps 4 and 5: Evaluation tools to assess the quality of studies and selecting the studies meeting the inclusion criteria

To assess the quality and risk of bias, two reviewers independently evaluated the final studies included in the research based on the strengthening the reporting of observational studies in epidemiology (STROBE) statement. This statement contains 22 items which are essential for an observational (cohort, case-control, cross-sectional) study. The first item was on the title and abstract and items two and three were related to the introduction. Items 4 to 12 were about the methodology; items 13-17 were related to results; items 18-21 were on the discussion; and item 22 as the

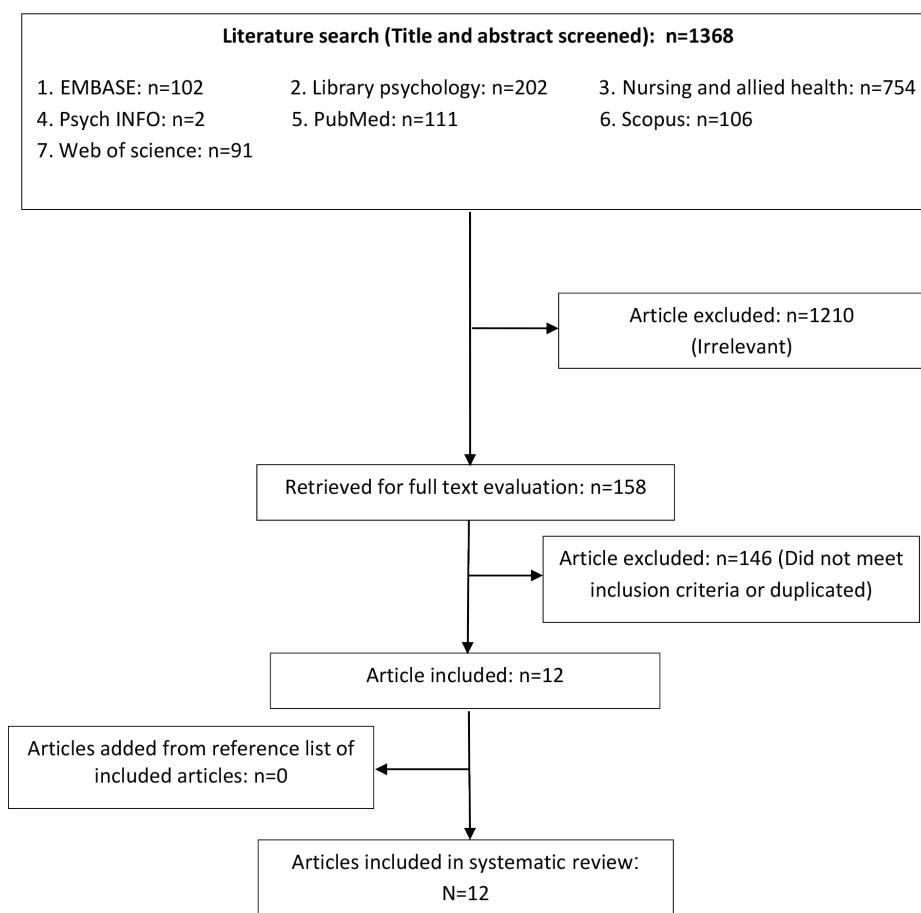


Figure 1: Study selection process

final item of note was relevant to the author of the research sponsors. Since 4 out of 22 items were based on the observational study, there were three separate checklists for three types of cohort, cross-sectional, and case-control studies. All 22 items on the checklist were used to assess the quality in the articles and the articles receiving 15.5 points were considered qualified.²² In this regard, all 12 articles were qualified and analyzed.

Step 6: Textual data mining and analysis

In order to extract and synthesize the data, the authors accurately read the articles and the most important points were extracted and summarized in line with the study objectives. The findings are reported based on the themes extracted. In order to increase the accuracy of the study, we monitored the data obtained and reviewed the two other researchers of this study.

RESULTS

In this section, based on the York method, textual data were extracted, analyzed and finally combined based on seven steps of this guideline. In this case, the results obtained from the analysis and interpretation of data, in line with the research questions, were classified into two parts, the QOL for family caregivers of patients on hemodialysis and its related factors; a summary of the results is presented in Table 1. Also, due to the use of various instruments to measure the quality of life in the final papers into the systematic review, scores less than 33%, 33-66.7%, and higher than 66.7% of the total scores of questionnaire respectively were considered as the low, medium and good quality of life.²³ Regarding the first question on the QOL of caregivers of patients on hemodialysis, the results showed that the QOL of caregivers of patients on hemodialysis was lower in all or some aspects, compared to the healthy general population.^{2,16,24,25} The QOL scores for hemodialysis patients were lower in some aspects, compared to their caregivers.^{2,26-28} In addition, the results showed that the QOL for these caregivers was disturbed in the majority

of aspects; however, mental aspects were mostly affected.^{2,16,18,29}

Regarding the second question on the factors associated with the QOL for caregivers, these factors can be classified in two categories, namely those related to care and care-taker factors. Care-related factors include age, gender, perceived social support, and perceived burden of care, affliction with other diseases (lupus, hypertension, hypothyroidism and depression), intellectual understanding of the limitations of the patient disease in their daily life, use of adaptation strategies, better marital relationships, and accepting self and family relationship with the patient (mother and wife). The factors associated with care-taker were age, QOL and type of treatment.^{18,24,28,30-32} Furthermore, there was no significant difference or relationship between the caregivers' education level, marital status, employment and the quality of their life.

DISCUSSION

This study aimed to investigate the QOL and its related factors among the caregivers of patients undergoing hemodialysis. Despite an increase in research conducted on the QOL in the clinical field and because of their applications in making decisions about allocating the resources and health policies, most studies carried out in this area were exclusively on patients with chronic diseases.²⁰ Family caregivers are at risk of affliction with various diseases and they are known as hidden patients. However, they are often overlooked.³³ Reviews done by the authors also suggest lack of studies on the QOL for family caregivers of patients undergoing hemodialysis. In most articles reviewed in this study, the Short Form Health Survey questionnaire was used, which is a general, common and multidimensional tool consisting of functional capacity, physical aspects, pain, general health status, vitality, social and emotional aspects, and mental health.^{4,34} The results of the data analysis for the selected articles (Table 1) revealed that the caregivers of patients on hemodialysis enjoy

Table 1: Synthesis of the studies on QOL for family caregivers of patients on hemodialysis and its related factors

No	Authors & Year	Title of Study	Samples & Setting	Method	Key Finding
1	Lindqvist et al., 2000	Coping strategies and health-related quality of life among spouses of continuous ambulatory peritoneal dialysis, hemodialysis, and transplant patients	Sweden: 55 spouses of patients. Findings from the study were compared to two random samples of the Swedish general population (n=454, and n=1200)	correlational and comparative	The majority of caregivers were female. The spouses of hemodialysis patients had significantly lower QOL compared with the general Sweden population and compared with the individuals of their own age. The spouses of patients with kidney transplantation had higher total score of QOL. Furthermore Physical functioning of transplant patient's spouses was significantly higher than that of hemodialysis patients'. The husbands also received higher scores on subscales of mobility, compared to wives. They also significantly used less supportive, palliative and optimistic deals than women. ³¹
2	Belasco et al., 2002	Burden and QOL of Caregivers for Hemodialysis Patients	Brazil: 100 hemodialysis patients and their respective primary caregivers	correlational and comparative	In health-related QOL for caregivers, there was more disorder in mental health, vitality, and physical aspects. There was also a significant relationship between lower scores of QOL for patients and caregivers and the perceived burden of care. There was only a significant relationship between caregivers' mental health, patients' vitality and caregivers' pain, and family relationship (wife) with caregiver' burden of care. Caregivers' mental health and vitality had the greatest impact on the emotional aspect of QOL. ¹⁸
3	Alvarez-Ude et al., 2004	Health-related QOL of family caregivers of dialysis patients	Spain: 221 patient/caregiver pairs (152 HD and 69 PD)	cross-sectional multi-centric study	QOL is slightly lower for family caregivers of patients on dialysis than the Spain general population of the same age and sex. The younger family caregivers who were looking after the elderly patients on the dialysis with lower health-related QOL experienced higher burden of care, lower health-related QOL and a higher risk of depression. The condition gets worse by reducing the perceived social support. ³⁰
4	Belasco et al., 2006	QOL of Family Caregivers of Elderly Patients on Hemodialysis and Peritoneal Dialysis	Brazil: 201 caregivers of elderly patients (>65 years) on hemodialysis (HD) therapy (n=84), on peritoneal dialysis (PD) therapy (n=40), and a group of caregivers (n=77) of nonelderly HD patients	correlational and comparative	In most aspects of QOL, the scores for caregivers of elderly and non-elderly patients on the dialysis were lower than the average QOL for the Brazil general population. The most affected areas consisted of mental aspects (vitality, social aspects, emotional aspects and mental aspects); however, the scores were lower than the scores of their physical aspect. ¹⁶
5	Low et al., 2008	The impact of end-stage kidney disease (ESKD) on close persons: a literature review	UK: 36 reviewed studies	literature review	Only in one study, people close to the patient reported the highest QOL and low burden of care; however, in other studies, it was shown that final stages of chronic renal failure and dialysis is associated with increased sense of responsibility and lower QOL, compared with a group of same age. ²⁵

6	Wiedebusch et al., 2010	Health-related QOL, psychosocial strains, and coping in parents of children with chronic renal failure	Germany: 195 parents (105 mothers, 90 fathers)	cross-sectional study	Mothers reported lower QOL and higher social-mental pressure than fathers. There was significantly associated with parental mental understanding of the limitations caused by their child's disease in everyday life; however, it was related with the duration of disease. There was a difference in subscales in terms of emotional pressure, self-improvement and well-being (health). Parents of children undergoing dialysis had the lowest score on the total scale; however, the parents of children treated conservatively, gained the highest score of health-related QOL. All adaptation strategies, with the exception of seeking social support, had a significant relationship with parents' QOL. also Adaptation strategies, improved marital relationships, seeking social support, self-acceptance and growth had approximately similar variance in predicting QOL. Parents using these strategies experienced higher QOL. Another predicting factor was parental understanding of the limitations caused by the disease in everyday life. Parents perceived less restriction caused by their children disease experienced higher QOL. ³²
7	Anees et al., 2011	Dialysis-Related Factors Affecting QOL in Patients on Hemodialysis	Pakistan: 125 Hemodialysis patients and 50 caregiver	cross-sectional study	QOL for hemodialysis patients was lower in all aspect but environmental aspect, compared to their caregivers. In other words, patients had lower qualities of lie in the areas of physical health, psychological health and social communication. Since caregivers are living with their patients in a similar socio-economic status and enjoy similar home, physical environment and transportation system, having similar environmental condition for both of them seems logical ²⁶
8	Gill et al., 2011	Assessment of the QOL of Caregiver's of Patients Suffering from Chronic Kidney Disease	India: 68 primary caregivers Group A had 36 caregivers of patients on haemodialys and Group B had 32caregivers patients not on hemodialysis.	prospective study	The burden of care for caregivers of hemodialysis patients was significantly higher than that for caregivers of non-dialysis patients. For the caregivers of hemodialysis patients, the scores obtained in physical, psychological, social and environmental aspects were significantly lower, compared to caregivers non-dialysis patients. ²⁹
9	Çelik et al., 2012	Are sleep and life quality of family caregivers affected as much as those of hemodialysis patients	Turkey: 142 pairs of HD patients and their caregivers	cross-sectional, multi-centric	A majority of caregivers (88%) had sleep disorders. Summary scores of physical and mental aspects were 62% and 70.4%, respectively and the caregivers were at a low level. The mean score of sleep quality questionnaire was significantly higher in groups of caregivers than in patients, indicating higher number for sleep disorders for caregivers. The scores obtained for seven dimensions of QOL including physical functioning, physical role limitations, emotional role limitations, physical pain, general health, social functioning, mental health, physical and mental performance summary was significantly higher in caregivers. However, the vitality score was non-significantly higher in patients. ²⁷

10	Rioux et al., 2012	Caregiver burden among nocturnal home hemodialysis patients	Canada: 61 pairs of NHD patients and their caregivers=122	Cross-sectional surveys	The majority of caregivers were women and wife. Compared with caregivers, patients received significantly lower physical health scores. However, their mental health scores were similar. The score obtained by the caregivers was lower than the score expected for a healthy population. The caregivers' physical health score was also lower than the expected score for a healthy population. And there was a relationship between the caregiver's physical health and being affected by other diseases (lupus, hypertension, hypothyroidism and depression). ²⁸
11	Shdaifat et al., 2012	QOL of Caregivers and Patients Undergoing Hemodialysis at Ministry of Health, Jordan	Jordan: 138 patients and 49 caregivers	cross-sectional study	The QOL scores was lower for patients than caregivers. And the QOL score in both groups was lower than that of the general population. The caregivers' highest score was associated with physical function and emotional role received the lowest score. In general, caregivers received higher scores compared with their patients and their physical and mental aspects summary scores were similar. However, caregivers' physical status summary was higher than their mental status. The caregiver's physical and mental status summary scores had a negative relationship with age. In this study, there was no relationship between QOL for caregivers and patients. There was also no relationship between women and men in terms of physical and emotional status. And there was also no significant difference and relationship between the caregiver's education level, marital status and employment with quality of their life and their physical and mental status summary. ²
12	Lopes et al., 2014	Health-related QOL of children and adolescents with CKD stages 4-5 and their caregivers	Brazil: Children/adolescents with CKD stages 4-5, as well as of their PC (n=64) in comparison healthy peers and their PC (n=129)	cross-sectional, descriptive, comparative and analytical study	Total scores of QOL were similar for caregivers and control group, except for the public health score, since the caregivers received lower scores than the control group. Moreover, the general health care scores for caregivers of hemodialysis patients under conservative treatment were lower. Median score of caregivers of hemodialysis patients in functional capacity, pain, vitality and mental health care was non-significantly lower the median score for caregivers of patients treated conservatively and those undergoing peritoneal dialysis and kidney transplant. ²⁴

HD: Hemodialysis; PD: Peritoneal dialysis; CKD: Chronic Kidney Disease

low QOL, compared to the general population; however, their QOL is higher than those of the patients under their care. This finding is consistent with the results of other studies on taking care of other chronic diseases, in which SF and WHOQOLBREF questionnaires were employed.³⁵⁻⁴⁰ The results showed that the QOL for these caregivers is disturbed in a majority of aspects; however, such disturbance was more evident in mental aspect. This finding is also in a similar line with the results of other relevant studies on chronic diseases^{35,37,39} since taking care of patients with chronic diseases is associated with psychiatric disorders such as depression and anxiety.⁹ In this study, female caregivers (mostly mothers and wives), with low age ranges and affected by physical and mental diseases had lower QOL. On the other hand, caregivers with lower burden of care, better social support, and better marital relationships had higher QOL. Furthermore, those caregivers having a better understanding of the disease of the patient under their care and employing effective coping strategies had higher QOL, compared to other caregivers.

Factors associated with care takers affecting the quality of caregivers' lives were age, QOL and the type of treatment. In other words, taking care of older patients undergoing hemodialysis who had lower QOL led to a decline in the quality of their life. According to Schulz, increased stress and depression, and decreased mental health in caregivers depend on factors such as the severity of pain and disease, behavioral problems and functional disorders of the person receiving the care, the required time and care, old caregiver, the family relationship between the caregiver and care taker (especially wife/husband), and the gender of the caregiver (female).⁵

In a study conducted in Kuwait on caregivers of patients with multiple sclerosis, caregivers and patients' lower education level, caregivers' unemployment and longer disease duration were associated with caregivers' lower QOL. Regarding the QOL, the patients' parents, compared to their spouses, enjoyed a higher QOL in mental aspects. However, the

QOL was not correlated with gender.³⁵ Another study in Korea on caregivers of patients with cancer showed that men were significantly better than women in terms of physical and mental aspects and QOL scores. There was a positive correlation between academic education and QOL and the caregivers' education was a positive factor in the QOL. Moreover, with an increase in the burden of care, QOL decreased. In addition, taking care of hospitalized patients had a negative impact on the caregivers' QOL. Furthermore, there was no correlation between the elapsed time between diagnosis and treatment and the QOL.⁴¹ In another study carried out in Germany on the caregivers of the elderly weak patients, the findings showed that female caregivers were different from female non-caregivers in all dimensions of QOL. Male caregivers were significantly different from male non-caregivers in all dimensions except for general health and physical functioning. However, there was no significant difference between male and female caregivers and female caregivers aged 51-63 years were regarded as the group being exposed to the risk of health problems.³⁹ In a study conducted in India on caregivers of patients with heart failure, the caregivers' medical health status (being infected by diseases) and their perception of care problems were the predictors of the physical health dimension of health-related QOL, and depression was the predictor of mental health dimension of health-related QOL.³⁸ The results of a study on caregivers of patients with chronic obstructive pulmonary diseases in India revealed that the QOL for the caregivers of the patients with a disease history less than a year is higher than that for the caregivers of the patients with a disease history more than a year.³⁷ In another study in India on caregivers of patients with dementia, it was found that there was no significant difference in none of the aspects of the QOL for both genders. Furthermore, there was also a negative correlation between the burden of care and QOL, and the perceived burden of care was significantly higher for

women than for men.⁴⁰ The results of a study on the QOL for the caregivers of patients with diabetes in Sudan showed that patients' parents, brothers and sisters had lower QOL, compared to others. The patient's age, duration of disease, caregiver's education and marital status (married ones had a better QOL compared to the single caregivers), and caregivers' health status were related to the caregivers' QOL. Moreover, how the caregivers assess the patients' the QOL was a predictor of caregivers' QOL. No relationship was also observed between caregivers' QOL and patients' gender and education level.³⁶ In the above studies, no study was found in line with all the findings of this study; however, all variables were considered in these studies. This controversy may be due to the differences in the type of chronic disease, study context, and certain ethnical and cultural differences, for example the type of chronic disease, the difference between patients on hemodialysis and those suffering from MS, chronic heart or respiratory failure, diabetes and other chronic diseases. The life of dialysis patients is dependent on dialysis machines, and for them life without it is equal to death. This causes many limitations for caregivers. Based on the type of context, caregivers in developed countries receive official support, while in developing countries caregivers do not have adequate support. This has a direct impact on their quality of life. Also, caregiver reactions, coping strategies and attitudes to caring are influenced by culture. Accordingly, Eastern societies such as Asian countries, due to the intact family structure, family dialysis patients, have responsibility to take care of these patients.

Study strengths and limitations: Although non-English full text articles were excluded in this study, no geographical restrictions were considered in selecting the articles, which enabled the researchers to provide a broad picture of the concept of QOL among Family Caregivers of Patients on Hemodialysis. In searches conducted by the researchers of this study, a systematic review article in which

the quality of life in caregivers of patients on hemodialysis was investigated was not found. This represents an innovation in this study. Also, in the majority of valid data and databases related to the topic, the search was conducted.

CONCLUSION

The results of several studies suggest the disturbed QOL of family caregivers; therefore, the nurse manager's greater attention to this issue is unavoidable. The caregiver's QOL is related with the patients' QOL. As a result, careful attention to caregivers' QOL and promoting it improves the patients' QOL. Mental aspects were mostly affected. Therefore, the importance of psychosocial counseling and improving the relationships between the professional caregivers including the nurses and family caregivers must be considered. Understanding the experiences of family members would help the nurses in providing better family-centered health cares, which is one of the main goals of holistic health care because the nurses who are aware of the difficulties experienced by family caregivers are able to define the caring roles and upgrade the families' skills to adapt to changing situations and this improves the patients and their families' QOL. More attention is suggested to be paid to family caregivers in nursing curriculum. Although the mental aspect was mostly affected in this study, the physical aspect was also disrupted. In addition, developing various simultaneous diseases had an impact on the loss of the quality of caregivers' life; therefore, clinical examination within the specified periods with an emphasis on the vulnerable group (women) is recommended. A remarkable point in these studies is that the QOL for caregivers of patients undergoing hemodialysis has been assessed by general entries. This suggests the need to develop a specific tool for measuring the QOL in this group of caregivers.

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