

Quality of Life Among End-Stage Renal Disease Patients in Ilocos Sur, Philippines

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KEYWORDS

hemodialysis, management, physical ability, psycho-spiritual ability, economic productivity

ABSTRACT

Introduction: Life with End-Stage Renal Disease (ESRD) is a perpetual challenge due to the demanding treatment schedule and other aspects of life, including pain and the patient's dependence on a machine (dialysis) for survival, which conflicts with the independence needed to maintain a normal life.

Objectives: The study determined the quality of life among ESRD patients and explored the association between the respondents' quality of life and their socio-demographic and health-related profiles.

Methods: The research utilized the descriptive-correlational design. The respondents comprised 147 patients who sought hemodialysis treatment in hemodialysis centers of the first district of Ilocos Sur, Philippines.

Results: Results showed that ESRD patients enjoy an acceptable quality of life. They have a good physical ability to enjoy life and a psycho-spiritual ability to cope with the effects of the disease, average economic productivity, and effective and meaningful political, community, and social participation. Factors like age, sex, civil status, occupation, educational attainment, co-morbidities, and several times undergoing hemodialysis showed a significant relationship to a better quality of life.

Conclusion: The study indicates that living with a chronic illness such as ESRD can significantly compromise what the patients hold, relating to what gives their lives quality and to what they attribute meaning in their lives. ESRD has a detrimental influence on every element or aspect of a patient's life.

1. Introduction

Maintaining optimum quality of life (QoL) in hemodialysis patients with End Stage Renal Disease presents a serious healthcare challenge. Due to changes in the definition of health and sickness over the past three decades, health systems have continued to emphasize QoL. Regardless of the stage of the disease, people with chronic kidney disease (CKD) have a substantial impact on their health-related quality of life (HRQoL) [1]. An estimated 500,000 patients with CKD advance to ESRD annually, making it the 18th most common cause of death worldwide in 2019. With an estimated death incidence ranging from 2.2 to 4.0 million cases, CKD would rank fifth globally by 2040 [2]. The final stage of chronic kidney disease, known as ESRD, is linked to a worse life expectancy and QoL [3]. Regular dialysis causes stress. It may cause anxiety and depression in addition to lowering the QoL for the sufferers [4].

An extremely low QoL is common among patients with end-stage renal illness. Numerous factors, such as the type of dialysis, its sufficiency or adequacy, and the related disease burden, affect the QoL of individuals with chronic renal disease [5]. ESRD patients' QoL is a constant issue owing to the rigorous treatment regimen and other elements of life, such as discomfort and pain. Pain affects HRQoL negatively and affects ESRD patients socially, psychologically, and physically [6]. Long-term ESRD patients frequently experience stress, anxiety, or even depression [7]. As a measure of how well chronic illness treatments are working, the HRQoL has grown in significance. Through the patient's perspective, the implications of the condition can be quantified; medical decisions can be guided by the patient's physical, emotional, and social requirements; treatment plan adherence, healthcare quality, and patient survival can all be improved [8]. With this goal, families were able to help patients have a better QoL and raise their expectations by offering encouragement and support throughout their hemodialysis treatment [9].

Previous studies on QoL among ESRD patients focused on many components. In individuals with end-stage renal illness, there is a clear correlation between higher morbidity and mortality and HRQoL

[10]. Determining a disease's treatment-related side effects is made possible by measuring HRQoL. These factors should be considered when making medical decisions as they may harm patients' lives. Compared to other research, patients with kidney failure receiving hemodialysis in Addis Ababa, Ethiopia, reported low HRQoL across all subscales [11]. However, current studies focus more on clinical outcomes, often overlooking the emotional and social challenges ESRD patients face. A significant research gap in the QoL among ESRD patients lies in understanding the long-term psychosocial impacts of treatment modalities, such as hemodialysis, peritoneal dialysis, and transplantation. Additionally, a gap in research exists regarding the impact of physical ability, psycho-spiritual resilience, economic productivity, and social engagement on the QoL for ESRD patients. While individual dimensions have been explored separately, there is limited understanding of how these factors work together to influence overall patient well-being. This gap suggests the need for studies that investigate these interconnected elements to provide a more holistic approach to improving the QoL for ESRD patients [12]. Further exploration of these QoL aspects, especially from patients' perspectives, could guide improvements in holistic care for this population. Addressing these gaps can provide a more holistic approach to improving their QoL. It is one of the reasons why the researchers were motivated to conduct this type of study on the patient's QoL. This study will focus on the physical ability to enjoy life, the psycho-spiritual ability to cope with the effects of the disease, economic productivity, and effective and meaningful political, community, and social participation.

The study's results would help educate ESRD patients on coping with their condition. It will also be the basis for the Department of Health and local government entities to design an activity strategy to improve ESRD patients' QoL. To improve the QoL, for the general public, adopting a healthy lifestyle is crucial for reducing the risk and managing the progression of renal failure, including ESRD. Achieving this goal requires several steps to help ESRD patients live better lives through proper education on preventive measures, such as maintaining a balanced diet, regular physical activity, and managing conditions like diabetes and hypertension that can lead to renal complications. Providing patients with enhanced public education and support programs could play a key role in preventing ESRD and improving the QoL for those at risk or already affected.

Objectives

The study determined the QoL among ESRD patients in Ilocos Sur, Philippines. Specifically, it looked into the profile of the respondents in terms of socio-demographic and health-related factors, their QoL, and the significant relationship between the QoL and their profile.

2. Methods

Study Design: The research utilized the descriptive-correlational research design. It described the QoL of ESRD patients. It also discovered a significant relationship between the respondents' QoL and their profile.

Study Sampling. The respondents of the study were comprised of 147 patients who sought hemodialysis treatment in hemodialysis centers in the first district of Ilocos Sur, Philippines. Total enumeration was employed.

Study Instrument. The study utilized a questionnaire checklist adapted from Savella's study [13] to gather the data. Part I deals with sociodemographic and health-related factors, and Part II deals with the QoL among the respondents in terms of physical ability to enjoy life, psycho-spiritual ability to cope with the effects of the disease, economic productivity and effective and meaningful political, community, and social participation.

Data Gathering Procedure. Before the study was conducted, the researchers sought permission from the chief of the different hemodialysis centers of Ilocos Sur. The researchers went to the hemodialysis centers to research patients seeking hemodialysis treatment. The researchers personally administered the questionnaire to the respondents and determined their co-morbidities, the management they are

into, and their QoL.

Ethical Considerations. Ethical considerations were observed before the study, and the University Ethics Review Committee reviewed the study with application number 518.

Statistical Tools. The following statistical tools were employed to treat and interpret the data gathered: Frequency and percentages described the sociodemographic and health-related factors of the respondents. Mean, which determined the QoL of the respondents. The simple linear correlational analysis determined the relationship between the QoL of the respondents and their profile.

3. Results and Discussion

3.1 Profile of the Respondents

A significant number (25.85%) of the respondents are 65 years old and above, female (54.54%), non-professional (34.69%), college graduate (39.46%), and with a family monthly income of Php10,000-Php19,999 (38.10%). A majority (70.75%) of the respondents are married.

The majority (75.51%) of the respondents have a comorbidity of hypertension. All (100%) are on the management of Hemodialysis or Peritoneal Dialysis. A significant number (35.37%) of the respondents undergo dialysis for 1-1.99 years. A great majority (76.19%) of the respondents undergo hemodialysis eight times a month.

3.2 Quality of Life Among the Respondents

The quality of life among the respondents is shown in Table 1.

Table 1. Quality of Life Among the Respondents

Quality of Life Dimensions	Mean	Interpretation
A. Physical ability to enjoy life	3.47	Good
B. Psycho-spiritual ability to cope with the effects of the disease	3.71	Good
C. Economic Productivity	2.58	Acceptable
D. Effective and meaningful political, community, and social participation	2.64	Acceptable
OVERALL	3.20	Acceptable

The overall QoL of the respondents with ESRD is acceptable. The result of an acceptable quality of life indicates that patients maintain moderate well-being despite significant health challenges and the burden of treatments like dialysis. Social support, adequate healthcare, and coping strategies sustain their QoL. Overall, patients balance the difficulties of their condition with resilience and available resources. This result means the respondents' QoL is reduced because they are already old, retired, have limited activity, and cannot join the community or social activities. Physical limitations and frequent medical appointments also restrict their ability to fulfill daily activities. Patients with CKD receiving hemodialysis have relatively low QoL [14]. The physical realm was most affected since the individuals had an irreversible, persistent illness that progressed over time. In addition, dialysis patients with renal failure have a poor QoL [5,15].

The respondents' QoL in terms of physical ability to enjoy life is Good. They often listen to music or watch television (computer, laptop, etc.) and do activities for personal grooming by themselves with ease. They sometimes actively engaged in household chores such as cleaning, gardening, or sorting out things and have limited elimination issues. With the average result, they can partake in physical exercise and occasionally deal with discomfort, headaches, and mild illnesses, but only on a small basis. It means that considering the severity of the disease, tasks such as eating, toileting, and personal hygiene, all of which involve movement and stamina, are carried out. Physical activity is every movement a person makes for work or play [16]. Rest, relaxation, and sleep are all essential. Rest, peace, and sleep are consistently obtained. All of this, in turn, contributes to their very satisfactory QoL in this dimension. The result of good QoL in terms of physical ability to enjoy life means that the respondents are trying to maintain their physical ability by doing personal activities and hygiene to enjoy life. A decrease in physical activity,

body pain, vitality, and social activity was observed among CKD patients across all stages. Consequently, these challenges necessitate comprehensive care plans tailored to address pain management and encourage physical and social activities. Enhancing support systems and providing accessible resources can significantly improve their overall QoL. The study stated that the physical field is regarded as one of the lowest fields [15].

The QoL of the respondents in terms of the psycho-spiritual ability to cope with the effects of the disease is Good. They always maintain their relationship with God. They often find relief and comfort in praying and experience acceptance by peers, friends, and loved ones. They sometimes experience contentment with their life situation. The average QoL in terms of psycho-spiritual ability means that the respondents are trying to maintain a pleasant mind and spirit to overcome the adverse effects of the disease by praying, having faith, and believing in God. In addition, the support and acceptance they receive from their social circles further bolster their emotional resilience. Such spiritual practices and social connections help them face the challenges posed by their condition.

The respondents' QoL regarding economic productivity is Acceptable. They often think they could get enough support from other people if they need money. They sometimes have limitations imposed by their physical condition on their earning capacity. They seldom have the opportunity to be gainfully employed and feel their income is commensurate to their labor. The QoL regarding economic productivity means that the respondents experience a financial burden because they cannot be permanently employed while receiving dialysis or traveling to and from treatments, can no longer earn a salary, or receive a limited amount due to their condition. The economic burden of the respondents is aggravated by their inability to work while undergoing dialysis or managing treatments, leading to significant overall stress and a reduction in their QoL. Addressing these challenges through financial aid and employment solutions could significantly improve their well-being and financial stability.

The QoL of the respondents in terms of effective and meaningful political, community, and social participation is Acceptable. They often continue communicating with friends and loved ones who are not with them. They sometimes establish a satisfying relationship with the opposite sex. They seldom actively join community affairs. The average QoL of the respondents in terms of effective and meaningful political, community, and social participation indicates a significant decrease in QoL associated with ESRD, particularly in social interaction and community involvement. Enhancing support systems that promote social connectivity and participation is essential, fostering a more fulfilling and integrated life despite the challenges of their condition. Numerous problems, such as sadness, anxiety, and cognitive impairment in the social domain; inactivity and frailty in physical activities; lack of social support and not participating in social activities, are among the numerous factors that negatively impact HRQoL in CKD [1]. Social inequalities and CKD-related variables would also impact HRQoL. The study stated that patients on hemodialysis have poor psychosocial status, which is one of the many reasons why they need thorough psychological therapy [17].

3.3. Relationship between the Quality of Life of the Respondents and their Sociodemographic and Health-Related Profile

The relationship between the QoL of the respondents and their socio-demographic and health-related profile is shown in Table 2. There is a significant relationship between the QoL of the respondents and their age, sex, and civil status, occupation, and educational attainment. This implies that differences in QoL can be linked to these demographic and socio-economic characteristics.

Table 2
 Correlation between the Quality of Life and the Profiles of the Respondents

Profile	Quality of Life	Prob
A. Socio-Demographic Factors		
Age	-.358**	p<.01
Sex	-.262**	p<.01
Civil Status	-.352**	p<.01
Occupation	.302**	p<.01
Educational Attainment	.352**	p<.01
Monthly Family Income	.111	p>.05
B. Health-Related Factors		
a. Co-morbidities		
Diabetes Mellitus	-.397**	p<.01
Hypertension	.040	p>.05
Congestive Heart Failure	-.001	p>.05
Cerebrovascular Accident	-.150	p>.05
Ischemic Heart Disease	-.138	p>.05
Myocardial Infarction	.006	p>.05
Anemia	-.301**	p<.01
Pneumonia	.073	p>.05
b. Management of ESRD Patient		
Hemodialysis with Erythropoietin	-.139	p>.05
c. Number of Years Undergoing Hemodialysis		
	-.156	p>.05
d. Frequency of Hemodialysis Treatment		
	-.265**	p<.01

There are aspects of QoL linked to sociodemographic factors that health professionals can consider to focus efforts on the health team and improve this important variable [18]. The younger respondents tend to have a better QoL than older ones, which further indicates that as individuals grow older, their perceived quality of life decreases. It can be attributed to several factors often accompanying aging, like physical health and cognitive or mental decline. Age has been found to impact one or more QoL aspects, as QoL decreases with age [14]. In addition, younger patients with ESRD have better QoL [18], thus older patients had lower QoL [20].

The sex of the respondents has a negative bearing on the QoL. This means that female respondents tend to have a better QoL than male respondents. The respondents' sex is associated to how individuals perceive and experience their QoL when managing ESRD. The factors that affect sex are essential to understand for developing interventions that address specific needs, enhance QoL outcomes across all patients affected by ESRD, provide more targeted support, and improve overall well-being for both male and female patients. On the contrary, women's QoL was lower than men's [20].

The respondents' civil status is also significantly associated with their QoL, which suggests that married individuals tend to have a better QoL than single respondents. Married individuals may benefit from their spouses' emotional and practical support, contributing to better stability and well-being. In contrast, single patients may experience greater challenges in managing their condition alone, potentially affecting their QoL. Understanding the factors affecting civil status can guide healthcare providers in offering support strategies to enhance the overall QoL for married and single patients living with ESRD and optimize care and support for all affected individuals. According to a study [21], married respondents had better QoL than widowed or divorced subjects. The relationship between the married status and the overall QoL score is statistically significant.

The occupation is associated with the respondents' QoL, meaning those employed as professionals tend to have a higher QoL than those who are not. This suggests that factors related to professional employment, such as financial stability, social status may contribute positively to overall well-being among patients with ESRD. Employment can provide structure to daily life, opportunities for social interaction, and access to healthcare benefits, which are crucial for effectively managing a chronic illness like ESRD. Understanding these correlations can help healthcare providers emphasize vocational rehabilitation and job retention programs as integral components of comprehensive care strategies to improve QoL outcomes for ESRD patients. Based on the frequency of weekly hemodialysis and unemployment status, many patients with ESRD receiving hemodialysis had lower overall HRQoL [22].

Educational attainment is associated with the QoL, which suggests that people with a higher level of education enjoy a higher standard of living than those with a lower level of education. The higher individuals' education levels, the better their skills are in managing their health, accessing healthcare services, and making decisions regarding their treatments, all of which can positively influence QoL. These associations highlight the importance of understanding and promoting education and literacy among patients with chronic conditions like ESRD to inform targeted interventions, policies, and programs to reduce health problems and improve health and QoL. It states that the higher-educated patients had greater QoL scores than lower-educated patients [20].

The family monthly income has no bearing on the QoL of the respondents. It suggests that financial resources alone may not be the primary determinant of QoL among individuals with ESRD. Other factors such as health status, social support, and psychological resilience may play more crucial roles in shaping perceived good health. It's possible that while income provides material comfort and access to healthcare, its direct impact on subjective measures of QoL may be moderated by these other factors. On the contrary, [21] demonstrates the importance of income and overall QoL.

The presence of co-morbidities such as diabetes mellitus ($r=-.397$) and anemia ($r=-.301$) and frequency of hemodialysis treatment ($r=-.265$) have an inverse relationship with the respondents' QoL. There is a significant relationship between the respondents' QoL and economic productivity ($r=.212$) and the management of ESRD patients. The respondents with fewer or no co-morbidities have a better quality of life than respondents with these diseases. It emphasizes the cumulative effects of several medical conditions on general health and well-being, mainly while ESRD is being managed. Diabetes mellitus and anemia are common co-morbidities that can reduce QoL by aggravating symptoms, making daily functioning difficult, and complicating treatment. Higher body fat, especially visceral adiposity, and decreased lean body mass can increase insulin resistance [23]. These co-morbid illnesses must be managed and treated effectively to improve the overall care of patients with ESRD and improve their QoL.

Those who get hemodialysis or peritoneal dialysis with erythropoietin tend to have better QoL than those who receive hemodialysis or peritoneal dialysis alone. Patients receiving hemodialysis or peritoneal dialysis with erythropoietin typically experience better management, which can alleviate symptoms such as fatigue and improve daily functioning. This improvement in health status and physical well-being contributes positively to their economic productivity, as they may be more capable of engaging in work or other activities.

The people who have hemodialysis less frequently (2 times a month) have a better QoL than those who have hemodialysis more frequently (8 times or 12 times a month). Patients undergoing more frequent hemodialysis sessions experience greater disruption to their daily routines, increased fatigue, and a higher burden of managing treatment schedules, which can negatively impact their overall well-being. In contrast, those with fewer frequent sessions may experience fewer interruptions to daily life and possibly fewer complications associated with treatment, leading to a better QoL. Understanding these associations highlights the need for personalized treatment plans that balance clinical outcomes with patient-centered considerations to optimize QoL for individuals undergoing hemodialysis for ESRD, tailor more treatment approaches, and improve patient outcomes.

4. Conclusion

Living with a chronic illness such as ESRD can significantly compromise what the patients hold, relating to what gives their lives quality and to what they attribute meaning in their lives. ESRD has a detrimental influence on every element or aspect of a patient's life. To attain a better quality of life, ESRD sufferers require assistance on many other levels, including social, economic, educational, physical, political, and spiritual, and maintaining a healthy lifestyle.

It is recommended that the Department of Health and LGU should conduct programs and counseling of patients, including their family members, to assist patients for a better QoL. Financial support may be one of the LGU projects for patients with end-stage renal disease, which involves asking for assistance from other government and non-government agencies. A similar study should be undertaken with additional domains to assess ESRD patients' general well-being.

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