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QUALITY OF LIFE IN HEMODIALYSIS PATIENTS

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ABSTRACT:

Introduction: The increasing number of patients with end stage renal disease (ESRD) has caused a substantial rise in the number of individuals receiving hemodialysis's, for most patients, is the result of kidney function deterioration over a period of time that is secondary to another chronic medical condition, such as diabetes or hypertension. Treatments that are currently available for ESRD include renal transplantation and a number of forms of renal dialysis. Objectives: To assess the quality of life among the patient undergoing hemodialysis. **Methodology:** Quantitative approach and descriptive research design adopted for this study. Total 50 patients (30 male and 20 female) selected for this study by purposive sampling technique. **Results:** This study found that most of the patient had poor quality of life due to the disease condition and hemodialysis. **Conclusion:** Chronic Kidney disease as increasing and patients opted for dialysis have idea to live, hence health professionals need to aware various factors influencing quality of life of those patients so that quality of life of these patients can be taken care to improve.

Keywords: Quality of life, hemodialysis patients

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INTRODUCTION:

The increasing number of patients with end stage renal disease (ESRD) has caused a substantial rise in the number of individuals receiving hemodialysis. Numbers are growing worldwide. Healthcare providers have seen this increase as an opportunity to be involved in the care of patients with chronic illness before they reach the end of life. This study has conducted to investigate the factors that predict quality of life in patients receiving dialysis. The goal is to provide descriptive information and to make recommendations for further research. [1-3]

ESRD, for most patients, is the result of kidney function deterioration over a period of time that is secondary to another chronic medical condition, such as diabetes or hypertension (4-6). Treatments that are currently available for ESRD include renal transplantation and a number of forms of renal dialysis. The treatment arrangement for an ESRD patient is usually influenced by non-medical factors. These factors include patient and provider preferences and judgments about which type of treatment is likely to be associated with positive patient adherence and quality of life (7-10). This study, however, is concerned only with those ESRD patients who receive hemodialysis.

The problems associated with ESRD are numerous and many patients experience

a list of symptoms that are co-morbid to ESRD. In 2000, Yavuz, Karatas, and Kilinc found that dialysis patients had mental difficulties as well as physical difficulties. They reported that the ESRD population has difficulty with ambulation, hand movement coordination, and cognition. In general, hemodialysis patients have significantly reduced self-assessed physical and mental health compared to the population (11-13). One of the goals of this study is to find out what predicts those physical and mental health components in order to improve quality of life.

In 1997, Evans reported that the term “quality of life” had been used “interchangeably with such terms as well-being, psychological well-being, happiness, life satisfaction, positive and negative affect, and the good life” . Because there are so many aspects of quality of life, it is hard to consider everything that might play a role in it. Evans found that quality of life includes, but is not limited to, “material well-being, physical well-being, personal growth, marital relations, parent-child relations, extended family relations, extra familial relations, altruistic behavior, political behavior, job characteristics, occupational relations, job satisfiers, creative/aesthetic behavior, sports activity, and vacation behavior” . Along with the illness and actual health aspects, “quality of life encompasses such domains as housing, employment, standard of living, and marriage” . Kimmel, Emont, Newmann, Danko, and Moss (14,15) found that “symptoms, especially pain, along with psychosocial and spiritual factors, are important determinants of quality of life in patients with ESRD” . There are factors associated with quality of life that should be assessed that are not always at the forefront of research design.

Objectives

- To assess the level of quality of life among CKD (chronic kidney disease) patient undergoing hemodialysis in the selected hospital.
- To associate the Level of QOL with selected Demographic Variables

METHODOLOGY

Quantitative research approach and Descriptive research design was adopted for this study. All CKD patients undergoing Hemodialysis in the selected Hospital, and fulfills the inclusion criteria were selected as sample.

Criteria for the Selection of the Sample

Inclusion Criteria: -

CKD patients who are -

- Admitted and treated at dialysis unit
- Undergone hemodialysis
- Willing to participate in the study.
- Understands and speaks local language or English

Exclusion Criteria: -

- Critically Ill/cancer patient/unconscious patient
- Not available during study period

Sample Size and Technique- 50 patients selected by Purposive Sampling technique for this study.

Development of Tool

The tool is prepared on the basis of objectives of the study and extended review of literature. Validity of the tool was established by consulting ten experts. The experts were requested to give their opinions and suggestions regarding the relevance of tool for further modification to improve the clarity and content of the terms.

Description of Tool: The tool is divided in to two sections

Section A: (i) Demographic characteristics of patient with CKD consist of age, gender, Height, weight, educational qualification, marital status, monthly income, personal habits and any health problem associated with CKD, onset of disease, etc.

(ii) Clinical variable such as, Physical activity or life style, Habit, Years of Illness with dialysis, risk factors/Causes of CKD, Frequency of dialysis per week, Number of medications, Drug adherence, Co-Morbid Conditions, BMI, etc.

Section B: This section consists of KDQOL-SF-36 Assessment scale (standardized questionnaire.) The Kidney Disease related Quality of Life Short Form (KDQOL-SF) consisted of 4 components namely symptom problem, effect of disease, burden of disease and general health. These 4 components consisted of 36 sub items that are related to the quality of life among the study subjects with CKD undergoing Hemodialysis. The symptom and problem component had 12 items, effect of disease component had 8 items, burden of disease

component had 11 items and general health had 5 items. Each item had a 5-point rating scale; (1) all of the time, (2) most of the time, (3) some of the time, (4) a little of the time and (5) none of the time. The maximum score of KDQOL-SF score was 180. Score 1-90 indicates poor quality of life, score 91-136 indicates fair quality of life and score 137 to 180 indicates good quality of life.

Interpretation:

Level of QOL	**Score**	**Percentage**
Poor QOL	1-90	< 50%
Fair QOL	91-136	50-75%
Good QOL	137-180	> 75%

Data Collection Procedure

Data was collected on quality of life of CKD patients with the help of KDQOL assessment Scale. Researcher introduced to each participant and purpose of the study was explained. Written consent was obtained from each participant. Level of Quality of life assessed with KDQOL–SF 36. All the patients were cooperated with the researcher.

Result and findings-

The 50 participants (30 men and 20 women,), majority 42 (84%) were in the age group of 41 to 60 years. Hemodialysis patients in stage four kidney disease and received dialysis three times per week. 80 percent of the participants were Hindu and 56% had education up to matric level. 70% were heavy workers and all most 50 % were taking alcohol, smoking and also 40% were chewing tobacco. Table 1 shows selected participant characteristics.

Table 1. Participant Characteristics

Variables		**(N-50)**	
		F	**%**
Age	<40	4	8
	41-50	22	44
	51-60	20	40
	>60	4	8
Religion	Hindu	40	80
	Muslim	4	8
	Christian	6	12
	Any other specify	0	0
Educational Status	Illiterate	0	0
	Primary	4	8
	Matric	28	56
	Higher secondary	14	28
	Graduation & above	4	8

Clinical Variable		N=50	
		F	%
Physical activity or life style	Heavy	35	70
	Moderate	10	20
	Sedentary	5	10
Habit (participants had Multiple habits so total number is more than the sample size)	Alcoholism	25	50
	Smoking	25	50
	Tobacco chewing	20	40
	Drugs/Substance abuse	0	0.00%

Table-2- Frequency and percentage distribution of the level of quality of life among Participants. N=50

Level of quality of life	N=50	
	F	%
Poor QOL	30	60
Fair QOL	15	30
Good QOL	5	10

Table 2 shows that more than half 30(60%) had poor quality of life and only 5(10%) had good quality of life.

Table 3- Mean and SD of Domain wise Quality of Life among the Participants

Domins of QOL	N=50	
	Mean	SD
Symptom problem	19.34	9.35
Effect of disease	22.55	7.25
Burden of disease	23.06	4.31
General health	13.73	4.28
Overall Quality of life	21.37	4.38

The above table 3 highlights that overall quality of life of the participants affected with chronic kidney disease was affected due to hemodialysis. The mean overall quality of life shows 21.37 with the SD of 4.38, along with the sub scales or the sub domains under quality of life presents that the mean of quality of life for symptom problem was 19.34 with SD 9.35, Mean quality of life for effect of the disease shows that 22.55 with SD 7.25. Mean quality of Life for Burden of disease highlights that 23.06 with SD of 4.31 and the mean quality of life due to general health indicates 13.73 with SD of 4.28 respectively.

Hence from the above result it proves that participants had experienced poor quality of life due to their health condition and treatment process.

With regards to association, it was found that among all study variables association with level of QOL among participants, the education status, habit, were found significant at 0.05 level of significant, whereas all other variables found not significant.

Discussion- The present study findings highlights that participant had poor quality of life. The results of the present research show that by using the KDQOL to assess the burden of kidney disease, the effects of kidney disease, and sleep, the physical health composite score of ESRD patients can be predicted. Likewise, by using the KDQOL to assess the burden of kidney disease, cognition, and social support, the mental health composite score of ESRD patients can be predicted. There is also the potential for the burden of kidney disease to be looked at individually in order to determine physical and mental health, and that could lead the way to predicting an overall health score. The models for predicting physical and mental health should be utilized to determine the individual patient's health issues and to determine the optimal treatment program for the patient.

Implications for Nursing

Quality of life could also be assessed and addressed for each patient by utilizing the Quality-of-Life Index. It is important for nurses to understand the factors that could predict the quality of life of a patient.

An area of consideration that the caretaker must consider is the issue of existence. A person diagnosed with renal failure is forced to make a literal life and death decision. Life being supported with dialysis treatments three times a week or death if no treatment is initiated. When the patient chooses to start dialysis, they have in effect chosen to live. Therefore, life in itself must contain a certain level of quality. That "quality" can truly only be measured by the patient.

This information obtained from the Quality-of-Life Index could easily be used to examine current practices, facilitate communications and plan for interventions that would improve the quality of life of the hemodialysis patient.

Limitations and Recommendations

The small nonprobability purposive sample (N = 50) and single institution setting were limitations to this study. This prohibits any generalizations beyond the study sample. The generalizability of the results from this

study to other populations could be facilitated by the use of random sampling, increasing sample size and using multiple dialysis centers.

Conclusion- The above result shows that patient had poor quality of life. Hence studies need to conduct to improve their quality of life by utilizing different diversional therapies and counselling. With the number of kidney disease patients increasing, and the number of patients on hemodialysis increasing as well, improving overall health in these patients is worth the research time and effort. More research specifically looking at the predictive models of physical health and mental health

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