

A Descriptive Study to Assess the Quality of Life in Chronic Renal Failure Patients Undergoing Haemodialysis in Selected Hospital, Udaipur

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Abstract

Introduction: CRF is one such chronic disease which causes a high level of disability in different domains of the patient's lives, leading to impaired QOL. Haemodialysis therapy is time-intensive, expensive, and requires fluid and dietary restrictions. Long-term dialysis therapy itself often results in a loss of freedom, disruption of marital, family, and social life, and loss of financial income. Haemodialysis alters the life style of the patient and family and interferes with their lives.

Materials & Methods: Present focused to assess the quality of life in chronic renal failure patients under haemodialysis at selected hospital, Udaipur. 50 chronic renal patients undergoing haemodialysis was selected for the study using purposive sampling technique. The samples were included for the study who meets the inclusion criteria of study. Informed consent was obtained from all the participants of study after explaining purpose of participating in this research study.

Results: The data was organized and analyzed using descriptive and inferential statistics. Results revealed that majority 28(56%) had fair quality of life, followed by 11(22%) had poor quality of life, 8(16%) had good quality of life and 3(6%) had very good quality of life with an average mean and SD was 162.10 and 57.08.

Conclusions: The findings of the study concluded that patient undergoing hemodialysis had declined in quality of life and hence suggest that they can overcome physical and psychological challenges by seeking on greater social support for coping the disease and its treatment.

Keywords: Chronic renal failure; Haemodialysis; Quality of life

Introduction

Chronic Renal Failure (CRF) is a type of kidney disease in which there is gradual loss of kidney function over a period of months or years. Initially there are typically no symptoms. Later on leg swelling, tiredness, fatigue, vomiting, loss of appetite or confusion may develop. CRF leads to a series of biochemical, clinical and metabolic disorders, directly or indirectly linked to high rates of hospitalization, morbidity and mortality.¹

CRF is the major public health problem worldwide. In the USA, 30 million people suffer from CKD. 10% of the population worldwide is affected by chronic kidney disease (CKD). The Global Burden of Disease (GBD) estimated that in 2015, 1.2 million people died from kidney failure, an increase of 32% since 2005.²

Dialysis is the process of removing excess water, solutes, and toxins from the blood in people whose kidneys can no longer perform these functions naturally. This is also known as renal replacement therapy.³

Haemodialysis is a process of purifying the blood of a person whose kidneys are networking normally. Haemodialysis can be an outpatient or inpatient therapy. Routine haemodialysis is conducted in a dialysis outpatient facility, either a purpose built room in a hospital or a dedicated, stand-alone clinic.⁴

Health Related Quality of Life (HRQoL) assessment is essential in evaluating quality and effectiveness of ESRD patient care, comparing alternative treatments and Renal Replacement Therapy (RRT) modalities, improving clinical outcomes, facilitating complex rehabilitation of ESRD patients, and enhancing patient satisfaction. HRQoL monitoring become part of regular ESRD patient assessment and incorporated into the continuous quality assurance and quality improvement systems.⁵

Hemodialysis therapy is time-intensive, expensive, and requires fluid and dietary restrictions. Long-term dialysis therapy itself often results in a loss of freedom, dependence on caregivers, disruption of marital, family, and social life, and reduced or loss of financial income. Due to these reasons, the physical, psychological, socioeconomic, and environmental aspects of life are negatively affected, leading to compromised QOL.⁶

End-stage renal disease patients undergoing hemodialysis (HD) has a considerable impact on the functional status and health-related QoL perceived by the patient as it is accompanied by symptoms that affect daily life. Over the years, several studies have assessed HRQoL in different ESRD populations. These reports reveal numerous socio-demographic, clinical, and psychosocial factors that are associated with impaired HRQoL.⁷

Objectives:

1. To assess the quality of life in Chronic Renal Failure patients undergoing haemodialysis.
2. To determine the association of quality of life in Chronic Renal Failure patients undergoing haemodialysis with selected socio-demographic variables.
3. To develop an information booklet on quality of life in Chronic Renal Failure patients undergoing haemodialysis.

Materials & Methods

Research approach: Quantitative approach was adopted to assess the Quality of life in Chronic Renal Failure patients undergoing Haemodialysis in selected hospital, Udaipur.

Research design: Non experimental descriptive study design is utilized to achieve the objectives of the study

Research setting: The present study was conducted at Pacific Institute of medical sciences and Hospital, Umarda, Udaipur.

Population: Population was chronic renal failure patients undergoing haemodialysis at pacific hospital, Umarda, Udaipur.

Sampling technique: Purposive sampling technique was used to select the samples

Sample and sample size: The sample and sample size for the present study was 50 chronic renal failure patients undergoing haemodialysis.

Sampling criteria:

Inclusion criteria

- The patients who will be willing to participate in the study.
- The patients who will be available at the time of data collection.

Exclusion criteria

- The patients who will be unconscious and incubated.
- The patients who will be suffering from other chronic conditions.

Results

Table 1: Frequency and percentage distribution of demographic variables

N=50

S. No	Demographic Variables	Frequency(f)	Percentage(%)
1	Age in years		
	a. 31-40	5	10
	b. 41-50	8	16
	c. 51-60	23	46
	d. > 60	14	28
2	Gender		
	a. Male	34	68
	b. Female	16	32
3	Marital status		
	a. Single	4	8
	b. Married	38	76
	c. Separated	5	10
	d. Divorced	3	6
4	Educational status		
	a. Illiterate	8	16
	b. Primary education	12	24
	c. Middle education	10	20
	d. Secondary education	7	14
	e. Senior secondary	8	16
	f. Graduation or above	5	10

5	Occupational status		
	a. Home maker	12	24
	b. Self employed	8	16
	c. Government job	4	8
	d. Private job	11	22
	e. Laborer	8	16
	f. Unemployed	7	14
6	Habits		
	a. Smoking	13	26
	b. Alcohol	18	36
	c. Drug abuse	4	8
7	Lifestyle		
	a. Active	22	44
	b. Sedentary	12	24
	c. Moderate	16	32
8	Duration of illness		
	a. 0-1 year	19	38
	b. 1-3 years	15	30
	c. 3-6 years	10	20
9	Duration of undergoing hemodialysis		
	a. 0-6 months	18	36
	b. 6 months to 1 year	14	28
	c. 1-2 years	11	22
10	Co-morbid illness		
	a. Diabetes mellitus	18	36
	b. Hypertension	12	24
	c. Cardiac diseases	8	16
10	d. Nil	12	24

Table 2: Quality of life in chronic renal failure patients undergoing hemodialysis
N=50

Quality of Life	f	%	Mean	SD
Poor(0-100)	11	22	160.10	57.08
Fair (101-200)	28	56		
Good (201300)	8	16		
Very Good (301400)	3	6		

Table 2 depicts the Quality of life in chronic renal failure patients undergoing hemodialysis revealed that majority 28(56%) had fair quality of life, followed by 11(22%) had poor quality of life, 8(16%) had good quality of life and 3(6%) had very good quality of life with an average mean and SD was 162.10 and 57.08.

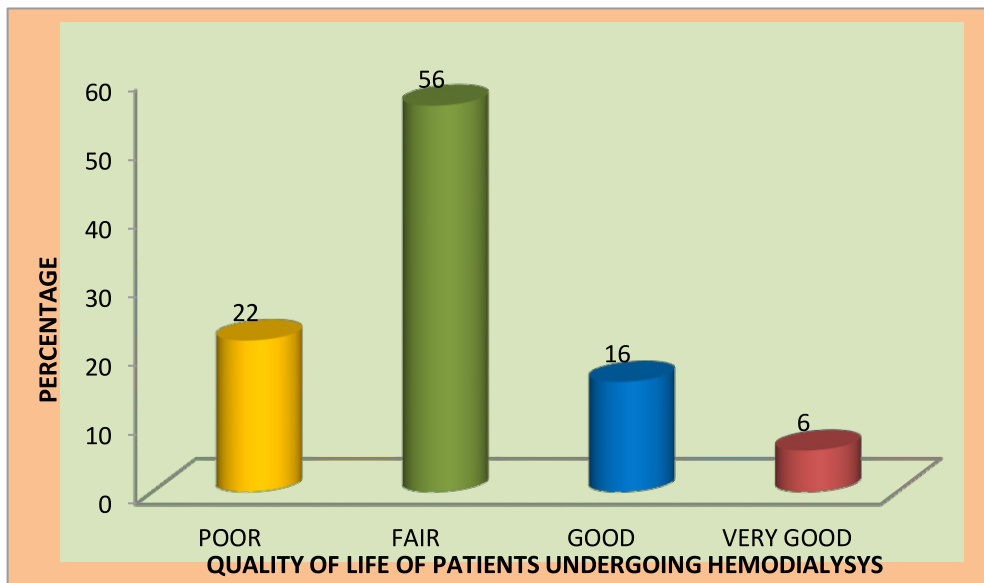


Fig 1: Quality of life in chronic renal failure patients undergoing hemodialysis

Table 3: Domain wise Quality of life in chronic renal failure patients undergoing hemodialysis

N=50

Quality of Life	Physical Health Domain		Psychological Domain		Social Relationships Domain		Environmental Domain	
	f	%	f	%	f	%	f	%
Poor (0-25)	15	30	11	22	23	46	18	36
Fair (26-50)	26	52	27	54	16	32	24	48
Good (51-75)	7	14	8	16	8	16	5	10
Very Good (76-100)	2	4	4	8	3	6	3	6
Mean±SD	40.16±17.93		44.36±18.58		36.88±17.78		38.70±19.18	

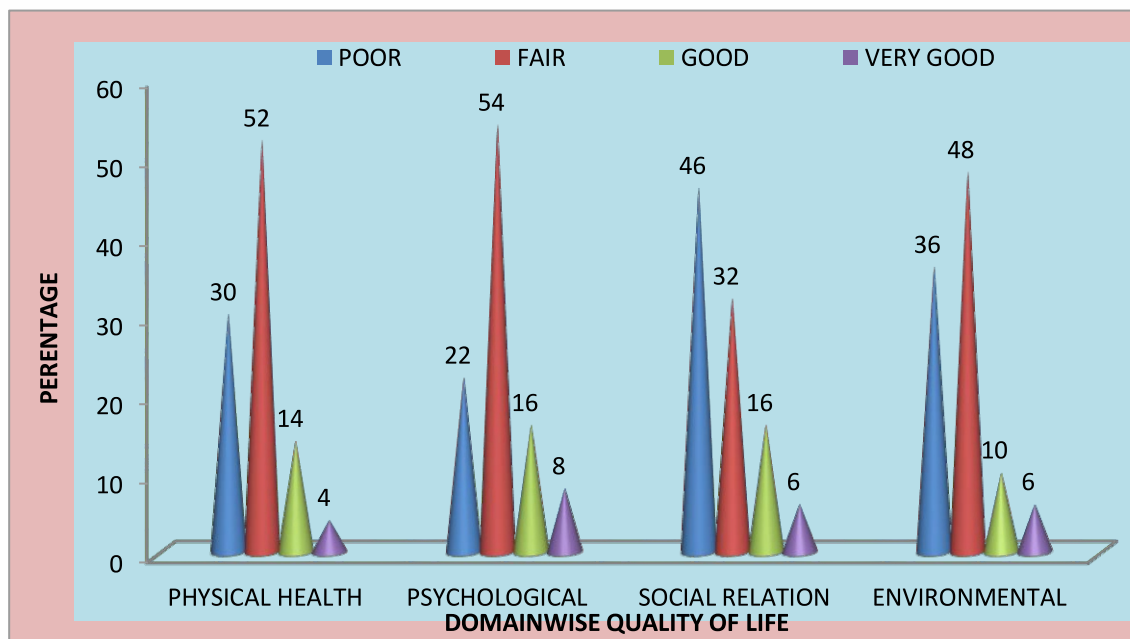


Fig 2 :Domain wise Quality of life in chronic renal failure patients undergoing hemodialysis

Table 4: Association between quality of life in chronic renal failure patients undergoing hemodialysis and selected demographic variables.

N=50

Demographic Variables	N	Mean	SD	F/t value	df	'p' Value
Age in years						
a. 31-40	5	129.20	43.14	0.667	3	0.577 NS
b. 41-50	8	153.12	54.29			
c. 51-60	23	163.57	63.82			
d. > 60	14	169.43	52.11			
Gender						
a. Male	34	158.15	56.53	1.349	48	0.728 NS
b. Female	16	164.25	59.88			
Marital status						
a. Single	4	139.50	40.03	0.780	3	0.511 NS
b. Married	38	167.08	59.96			
c. Separated	5	137.0	48.90			
d. Divorced	3	137.67	46.82			
Educational status						
a. Illiterate	8	170.88	69.42	2.890	5	0.049*
b. Primary education	12	159.50	71.66			
c. Middle education	10	127.50	35.83			
d. Secondary education	7	131.43	40.19			
e. Senior secondary	8	189.88	41.14			
f. Graduation or above	5	190.02	28.08			
Occupational status						
a. Home maker	12	161.08	50.93	3.229	5	0.048*
b. Self employed	8	137.88	43.65			
c. Government job	4	149.0	29.45			
d. Private job	11	138.64	47.23			
e. Laborer	8	166.38	80.22			
f. Unemployed	7	196.71	50.91			
Habits						
a. Smoking	13	160.77	76.61	0.578	3	0.633 NS
b. Alcohol	18	160.50	48.95			
c. Drug abuse	4	125.50	37.02			
d. Nil	15	168.27	52.48			
Lifestyle						
a. Active	22	139.50	48.70	3.760	2	0.031*
b. Sedentary	12	192.25	65.02			
c. Moderate	16	164.31	52.48			
Duration of illness						
a. 0-1 years	19	154.11	61.72	0.246	3	0.864 NS
b. 1-3 years	15	170.60	54.49			
c. 3-6 years	10	158.90	55.20			
d. More than 6 years	6	154.83	63.38			
Duration of hemodialysis						
a. 0-6 months	18	164.89	55.34	0.674	3	0.572 NS
b. 6 months to 1 year	14	147.43	51.98			
c. 1-2 years	11	176.45	73.28			
d. More than 2 years	7	147.43	44.79			
Co-morbid illness						
a. Diabetes mellitus	18	151.89	58.47	0.246	3	0.863 NS
b. Hypertension	12	170.42	50.28			
c. Cardiac diseases	8	160.62	53.77			
d. Nil	12	161.75	68.11			

*** p value <0.05 level of significance - NS Non significant**

Table 4 depicts Education status, occupational status and lifestyle of patient undergoing hemodialysis was found significant association with quality of life but other demographic variables such as age, gender, marital status, habits, duration of illness, duration of undergoing hemodialysis and co-morbid illness was not found significant association with quality of life in chronic renal failure patients undergoing hemodialysis.

Discussion

CRF is one such chronic disease which causes a high level of disability in different domains of the patients lives, leading to impaired QOL. Present study results revealed that majority 28(56%) had fair quality of life, followed by 11(22%) had poor quality of life, 8(16%) had good quality of life and 3(6%) had very good quality of life with an average mean and SD was 162.10 (mean percentage was 40.52 percent) with standard deviation of 57.08. study was supported by **Purnima Negi, Madhavi Verma (2019)⁸** on quality of life of chronic kidney disease patients undergoing hemodialysis. Result showed that mean percent of QOL score was found to be 59.28 percent with a standard deviation of 14.58. The level of QOL was average in 61.4 percent of CKD patients. 20% had above average QoL and 18.6% had below average level of QOL. The highest mean percent score in QOL was 67.4 percent in physical domain, followed by score of social domain was 42.14 percent and lowest mean percent QOL score of 26.43 percent in social domain. The study findings indicate that CKD adversely affects the QOL of patients on hemodialysis. In physical health domain (40.16 ± 17.93), psychological domain (44.36 ± 18.58), social relationship domain (6.88 ± 17.78) and environment domain (38.70 ± 19.18). study carried by **Sathvik, Parthasarathi, Gurudev (2018)⁹** showed that the highest QOL score was observed in the environment domain was (60.59 ± 11.73) followed by social relationships was (53.93 ± 16.91), psychological health was (40.92 ± 18.66) and physical domain was (38.81 ± 18.36). The study concluded the QOL of hemodialysis patients is considerably impaired compared to healthy subjects, especially with respect to the physical, psychological and social relationship domains. Current study results showed that education status, occupational status and lifestyle of patient undergoing hemodialysis was found significant association with quality of life at $p < 0.05$. The other demographic variables such as age, gender, marital status, habits, duration of illness, duration of undergoing hemodialysis and co-morbid illness was not found significant association with quality of life in chronic renal failure patients undergoing hemodialysis. **Ibrahim Mousa Khaled Zyoud (2018)¹⁰** in study showed that educational level and self efficacy was found significant association with quality of life at $p < 0.05$.

Conclusions

The findings of the study revealed that majority 28(56%) had fair quality of life, followed by 11(22%) had poor quality of life, 8(16%) had good quality of life and 3(6%) had very good quality of life. Chronic renal failure patients undergoing haemodialysis may affect their quality of life in all aspects of domains such as physical, psychological, social and environmental. Patients undergoing dialysis can overcome physical and psychological challenges by seeking on greater social support for coping the disease and its treatment. Information booklet on several coping techniques was prepared and distributed to the chronic renal failure patients undergoing haemodialysis to enhance their quality of life.

Nursing implications

The findings of the study have implication in the field of nursing profession in the areas of nursing practice, education administration and research. Nurse acts as an educator, leader, counselor and motivator. The present study emphasized on measures to improve the quality of life of Chronic renal failure patients undergoing haemodialysis.

Nursing Practice

- Nurses play a vital role in improving the quality of life and coping strategies among Chronic renal failure patients undergoing haemodialysis.
- The nurse would be able to understand physical, psychological, social and environmental factors which influence the quality of life of Chronic renal failure patients undergoing haemodialysis and various positive coping strategies which can enhance their overall health status.
- Nurse should be able to assess the factors associated with quality of life of Chronic renal failure patients undergoing haemodialysis and to ensure the patients to adapt adequate coping to improve the quality of life.

Nursing Education

- Education is a key component in improving the knowledge and attitude of individual.
- The present study emphasized on educating the Chronic renal failure patients undergoing haemodialysis and health workers regarding measures to improve quality of life and coping strategies.
- Educate the patients regarding their common problems and about various coping strategies to overcome those problems.

Nursing Administration

- Nursing administrators should take initiative and be involved in organizing various campaigns to aware Chronic renal failure patients undergoing haemodialysis for improvement of quality of life and coping strategies.
- Nursing administrators should organize campaigns at community level for Chronic renal failure patients undergoing haemodialysis and families regarding coping technique to improve quality of life.

Nursing research:

- The study will be valuable reference for further research.
- Findings of the study will act as a catalyst to carry out more extensive research on a larger population, sample in different settings.
- The findings of the study would help to expand the scientific body of professional knowledge upon which further research can be conducted.

Recommendations

- A similar study can be replicated on a large sample to validate and generalize the findings.
- A comparative study can be conducted to assess the quality of life in chronic renal failure patients undergoing haemodialysis and peritoneal dialysis.
- A study can be conducted to assess the effectiveness of coping strategies on quality of life in chronic renal failure patients undergoing haemodialysis.

Ethical consideration

- Clearance from the ethical committee of Venkateshwar College of Nursing, Umarda, and Udaipur was obtained.
- Permission was taken from concerned authority of the pacific hospital, Udaipur
- Informed written consent will be obtained from the each study subjects.

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Conflict of Interest: *There are no conflicts of interest*

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