



## **Quality of Life among Chronic Renal Failure Patient Undergoing Hemodialysis in a Private Hospital in Kanyakumari District**

**Mrs. Anjana H. S <sup>a</sup>, Prof. Dr. Rachel Pappachan <sup>b</sup>**

<sup>a</sup> Lecturer, Lourdes College of Nursing, Ernakulam, India

<sup>b</sup> Vice principal, Saraswathy College of Nursing, Trivandrum, India

### **ABSTRACT**

The purpose of the study was to assess the quality of life among chronic renal failure patients undergoing hemodialysis in a private hospital in kanyakumari district. The objectives of the study were to assess the quality of life among chronic renal failure patients undergoing hemodialysis, to find out the association between the selected socio-demographic variables among chronic renal failure patients undergoing hemodialysis with their quality of life and to find out the association between the clinical variables among chronic renal failure patients undergoing hemodialysis with

their quality of life. The research design adopted for the study was Non-experimental Cross-sectional research design and a sum of 125 samples who fulfilled inclusion criteria were selected through Consecutive sampling technique. The collected data was analyzed using descriptive and

inferential statistics. The results revealed that, the overall quality of life shows that 49.6% had greatly impaired quality of life and 50.4% had mildly impaired quality of life.

Keywords: Assess, Quality of life, Chronic renal failure patients, Hemodialysis, WHOQOL-BREF.

### **Introduction**

Quality of life is seem to be worsen in majority of patient with chronic disease such as cancer, cardiac disease, stroke, HIV, renal disease and disease of central nervous system[1]. Among various chronic disease, Chronic kidney disease is emphasized as common, harmful and treatable.[2]. Chronic renal failure and the renal replacement therapies affect the patient's and family member's quality of life negatively because of changes in their habits, day to day life and their dependency level [3]. Need for prolonged dialysis leads to the disruption of marital, familial and social life. It also affects the economic stability. These reasons can adversely affect the patient's physical, psychological, socio economic and environmental health which results in impaired QOL [4].

In 2019 a study showed that the global prevalence of CKD was increased to 13.4% and patients with last stage of chronic kidney disease who were in need of renal replacement therapy is between 4.902 & 7.083 million [5]. In 2018 there was about 1,75000 number of patients undergoing chronic hemodialysis in India [6]. It was found that around 15,000 patients are in need of renal replacement therapies such as dialysis or renal transplantation in Tamil Nadu as per Indian CKD registry [7].

A cross-sectional study was conducted to assess the quality of life of chronic kidney disease patients on hemodialysis in Basra General Hospital, Iraq. For this study 104 samples were selected and data were collected through World Health Organization quality of life - BREF (WHOQOL-BREF) questionnaire. The study results revealed that the overall quality of life of samples were greatly impaired. The quality of life of 56% samples was greatly affected (score<50), while the quality of life of 44% samples were mildly affected (score ≥50) [8].

Many research studies have proven that the patients with chronic kidney disease undergoing hemodialysis have a lower QOL than those patients undergoing peritoneal dialysis and renal transplantation. Evaluation of QOL of patients with CKD helps to analyse the quality of dialysis program and helps to make good intervention plans and set goals for future by the nephrologists [9].

### **Statement of the problem**

A study to assess the quality of life among chronic renal failure patients undergoing hemodialysis in a private hospital in Kanyakumari district.

### **Objectives**

- To assess the quality of life among chronic renal failure patients undergoing hemodialysis.

- To find out the association between the selected socio-demographic variables among chronic renal failure patients undergoing hemodialysis with their quality of life.
- To find out the association between the clinical variables among chronic renal failure patients undergoing hemodialysis with their quality of life.

### Hypothesis

*H1:* There is an association between the selected socio-demographic variables among chronic renal failure patients undergoing hemodialysis with their quality of life.

*H2:* There is an association between the clinical variables among chronic renal failure patients undergoing hemodialysis with their quality of life.

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## Materials and methods

**Research approach:** Quantitative research approach. **Research design:** non-experimental cross-sectional research design. **Settings of the study:** Morris Mathias Hospital, Nagercoil in Kanyakumari district. **Study population:** The population for the study includes 125 chronic renal failure patients undergoing hemodialysis. **Sample size:** 125.

### Conceptual framework

The framework used for the present study is Revised Wilson and Cleary model for Health related Quality of life. This model was developed in order to help explain the relationships of clinical variables that relate to quality of life.

### Tools and Techniques of data collection

Data were collected using the WHO Quality of Life Scale –Bref (WHOQOL-BREF) questionnaire by structured interview method. The tool has two sections, section A and section B. **Section A** contains questionnaire on socio-demographic data, which includes age, gender, educational status, employment

status, annual income, marital status, living locality, personal habits, type of family, care giver, financial support and engagement in recreational activities.

**Section B** contains questionnaire on clinical data, which includes duration of chronic renal failure, duration of hemodialysis, number of dialysis per week, type of vascular access, history of comorbid conditions. **Section C:** World Health Organization Quality Of Life – BREF (WHOQOLBREF) scale. It includes 26 items divided into four life domains (physical, psychological, social, and environmental) and another two questions on QOL and satisfaction with the current health status. The 26 items of the WHOQOLBREF are rated on a 5-point Likert scale. All domains have different raw score ranges; all raw scores are transformed to 0-100 scale using transformation formula.

### Data collection procedure

After getting the approval from Institute of Ethics Committee, written permission was obtained from the authorities concerned of the Morris Mathias hospital, Nagercoil. The researcher first selected the samples who fulfill the inclusion criteria. Then using consecutive sampling technique, 125 samples were selected. After explaining the nature and purpose of the study, informed consent was obtained from the samples. Data was collected using questionnaire on World Health Organization Quality Of Life –BREF (WHOQOL-BREF) Scale by structured interview method.

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## Results

### Section A: Socio-demographic variables.

The percentage distribution of samples according to socio-demographic variables shows that, about 36.8% were in the age group of 51-60, more than half i.e. 59.2% were males and 48.8% had secondary education. 38.4% were self-employed, 29.6% had the annual income between 24200-100000 and majority i.e. 71.2% were married. Regarding the living locality and personal habits, majority i.e. 68.8% were living in rural area, and 31.2% had personal habits of consuming alcohol, 20.8% had the habit of smoking, 2.4% had the habit of tobacco chewing and 56% did not have any specific type of personal habit. Among the samples majority i.e. 87.2% belong to nuclear family, 61.6% were taken care by their spouse, 49.6% received financial support and 42.4% engaged in recreation activities

### Section B: Clinical variables.

The percentage distribution of samples according to clinical variables shows that, with regard to the duration of chronic renal failure and hemodialysis, 46.4% were suffering with chronic renal failure for <5 years and 48.8% were undergoing hemodialysis for >12 months. 57.6% undergoes hemodialysis 2 times per week, majority i.e. 89.6% undergo hemodialysis through hand-AV fistula and most of them i.e. 85.6% had the history of co-morbidity.

### Section B: Quality of life among chronic renal failure patients undergoing hemodialysis

The quality of life among chronic renal failure patients undergoing hemodialysis revealed that, with regard to physical domain 41.6% and 58.4% had greatly and mildly impaired quality of life respectively, in the psychological domain 60.8% and 39.2% had greatly and mildly impaired quality of life

respectively. In the social domain it showed that 46.4% and 53.6% had greatly and mildly impaired quality of life respectively and with respect to environmental domain 38.4% and 61.6% had greatly and mildly impaired quality of life respectively. The overall quality of life showed that 49.6% had greatly impaired quality of life and 50.4% had mildly impaired quality of life.

### **Section C: Association between the selected socio-demographic variables of samples with their quality of life**

There was statistically significant association between educational status, employment status, annual income, marital status, living locality, personal habit such as smoking, care giver and financial support with their quality of life at  $p < 0.05$  level. There was no significant association between socio-demographic variables such as age, gender, personal habit such as alcohol consumption and tobacco chewing, type of family and engagement in recreational activities. Hence, the research hypothesis H1: "there is an association between the selected socio-demographic variables among chronic renal failure patients undergoing hemodialysis with their quality of life" was accepted, except for socio-demographic variables such as age, gender, personal habit such as alcohol consumption and tobacco chewing, type of family and engagement in recreational activities.

### **Section V: Association between the clinical variables of samples with their quality of life**

There was statistically significant association between duration of hemodialysis and number of dialysis per week with their quality of life at  $p < 0.05$  level. There was no significant association between clinical variables such as duration of chronic renal failure, site of the hemodialysis and history of co-morbidity. Hence, the research hypothesis H2: "there is an association between the clinical variables among chronic renal failure patients undergoing hemodialysis with their quality of life", was accepted except for the clinical variables such as duration of chronic renal failure, site of the hemodialysis and history of co-morbidity.

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## **Discussion**

The aim of the study was to assess the quality of life among chronic renal failure patients undergoing hemodialysis. The overall quality of life shows that 49.6% had greatly impaired quality of life and 50.4% had mildly impaired quality of life. This study findings shows that there was statistically significant association between the selected socio-demographic variables such as educational status, employment status, annual income, marital status, living locality, personal habit such as smoking, care giver and financial support and also there was statistically significant association between the clinical variables such as duration of hemodialysis and number of dialysis per week. These findings are supported by the result of a cross-sectional study conducted in Iraq, were The study results revealed that the quality of life of 56% samples was greatly affected (score  $< 50$ ), while the quality of life of 44% samples were mildly affected (score  $\geq 50$ ).

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## **Conclusion**

The present study was aimed to assess the quality of life among chronic renal failure patients undergoing hemodialysis in a private hospital. The study concluded that overall quality of life shows that 49.6% had greatly impaired quality of life and 50.4% had mildly impaired quality of life. Chronic renal failure and the renal replacement therapies affect the patient's and family member's quality of life negatively. Assessment of those factors affecting the quality of patients life create a step in developing a standardized mind-body treatment programme, in relation to specific needs of patient with Chronic renal failure.

### **Nursing Implications**

- A routine psychological assessment and nursing interventions can be planned for patient undergoing hemodialysis .
- Nurse can teach care givers regarding the change and challenges that a chronic renal failure patient undergoes during hemodialysis treatment

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