

# Assessment of Satisfaction Level and Quality of Life among Haemodialysis Patient's on Dialysis Therapy

Parimala L.<sup>1</sup>, Mary Sofia<sup>2</sup>

<sup>1</sup>Vice-Principal, <sup>2</sup>B.Sc (Nursing) IV Year, Saveetha College of Nursing, SIMATS, Thandalam, Chennai 602105

## Abstract

**Background:** Chronic diseases have become a major public health problem and the leading cause of morbidity and mortality. The burden of chronic kidney disease in India cannot be assessed accurately. QOL is an overall assessment of a person's well-being, which may include physical, emotional, and social dimensions, as well as stress level, sexual function, and self-perceived health status. Patients' quality of life (QOL) and satisfaction assessment are becoming increasingly important in health care delivery. There is evidence that better QOL and patient satisfaction might be associated with better medical outcome including reduced hospitalization and reduced mortality. The present aims are to assess the satisfaction level and quality of life among haemodialysis patients on dialysis therapy.

**Method:** A descriptive study was chosen to assess the satisfaction level and quality of life among 100 haemodialysis patients. The structured questionnaire was used to assess the satisfaction level and quality of life among haemodialysis patients. The present study results depicts that in regards to the level of satisfaction on dialysis procedure 16% were completely dissatisfied, 37% were dissatisfied, 18% were neither satisfied nor dissatisfied, 12% were satisfied and 17% were completely satisfied. The level of quality of life among haemodialysis patients, 8% had very negative impact, 42% had negative impact, 22% had no impact, 23% had positive impact and 5% had very positive impact.

**Conclusion:** The present study findings concluded that patients on HD were not having adequate QOL in all domains except patient satisfaction due to changes in the physiological, chemical changes occur in the kidney.

**Keywords:** Satisfaction level, Quality of life, Hemodialysis, CKD and Dialysis Therapy.

## Introduction

Chronic kidney disease has become a major cause of global morbidity and mortality even in developed countries. Global status report on non-communicable disease (2010) stated that 80% of chronic disease deaths worldwide occur in low and middle income countries. CKD prevalence in all over the world predicated to reach 8-16% of the populations.<sup>1</sup> Chronic kidney disease

is now the 3<sup>rd</sup> most common non-communicable disease in India. CKD incidence rises every year, especially in developing countries cause of increasing life expectation age, so that people have a longer age<sup>2</sup>. CKD therapy needs special treatment such as dialysis (Hemodialysis or peritoneal dialysis) or renal transplantation which needs a lot of costs. Renal transplantation actually is more efficient compared to dialysis because only in one treatment can make patients avoid dialysis procedure which takes place in relatively long duration. Meanwhile, many people use dialysis to treat CKD<sup>3</sup>.

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### Corresponding Author:

**Parimala L.**

Vice-Principal, Saveetha College of Nursing, SIMATS, Thandalam, Chennai 602105

e-mail: parimala.scon@saveetha.com

Chronic kidney disease is now the 3<sup>rd</sup> most common non-communicable disease in India. Worldwide statistics shows that 9, 20,000 people are undergoing haemodialysis per day, which constitutes about 7-8% of the population. Patients undergoing haemodialysis

in today's society will require several life style modifications like diet, fluid, work and activities of daily living. Dialysis is treatment for patients with temporary or permanent kidney failure. Haemodialysis is the most commonly used method of dialysis<sup>4</sup>.

Kidneys are vital organs of our body and are integral to maintain the body's homeostasis. Dysfunction of kidney is very common now a day and may occur at any age with varying degrees. Kidney problems are acute and chronic kidney failure from stage 1 to stage 5 and end stage renal failure. Haemodialysis is the process, by which the crystalline substances will pass through a semi-permeable membrane, usually employed to remove waste and toxic products from the blood in cases of renal insufficiency. Haemodialysis was first developed by Thomas graham in 1884 and Dr William K off is considered as father of dialysis<sup>5</sup>.

Watson stated dialysis is a therapeutic procedure used in acute and chronic failure to lower the blood level of metabolic waste products (urea, creatinine, uric acid) and toxic substances and to correct abnormal electrolyte and fluid balances. Two method currently in use are continuous ambulatory peritoneal dialysis and haemodialysis. Haemodialysis takes place outside of the body using a dialysis machine to which an artificial kidney is attached<sup>6</sup>.

QOL is an overall assessment of a person's well-being, which may include physical, emotional, and social dimensions, as well as stress level, sexual function, and self-perceived health status<sup>7</sup>. Patients' quality of life (QOL) and satisfaction assessment are becoming increasingly important in health care delivery. There is evidence that better QOL and patient satisfaction might be associated with better medical outcome including reduced hospitalization and reduced mortality. Recently more attention has been paid to patient preferences in various renal replacement therapy modalities<sup>8</sup>.

According to the findings of recent studies, 322 patients on maintenance HD in 3 Saudi dialysis centers participated in a study regarding factors affecting their satisfaction with their dialysis therapy. The results indicated that the level of satisfaction is influenced by gender, duration on dialysis, educational level, and standard of care given. Specifically, a lower level of education was associated with worse dialysis effect on stress, overall health, sexual life, hobbies, and exercise ability.<sup>9,10</sup>

In a study conducted by **Kim et al. (2013)** with regards to health related quality of life (HRQOL) and its association with self-efficacy and the treatment satisfaction in Korean dialysis patients; the study subjects were 237 patients receiving either HD or peritoneal dialysis (PD) from two university hospitals. The main finding showed that patients' self-efficacy and treatment satisfaction could influence their HRQOL.<sup>11</sup>

**Palmer et al. (2014)** conducted a survey to evaluate patients' experiences of specific aspects of HD care across several countries in Europe and South America. 2748 adults treated in HD participated in the study. Aspects of care that respondents the most frequently ranked as excellent were staff attention to dialysis vascular access; caring of nurses; staff responsiveness to pain or discomfort; caring, helpfulness and sensitivity of dialysis staff; and ease of reaching dialysis staff by telephone. The aspects of care least frequently ranked as excellent were information provided when choosing a dialysis modality, ease of seeing a social worker, information provided about dialysis, accuracy of information from nephrologists, and accuracy of nephrologists' instructions<sup>12</sup>.

Although a considerable number of articles on QOL among haemodialysis patients have been published, few studies particularly are done to assess the level of satisfaction. Consequently, the assessment of the current issue needs to be better understood and addressed more among haemodialysis patients. The objectives of the study are to assess the satisfaction level and quality of life among haemodialysis patients on dialysis therapy.

## Method and Materials

The research approach adopted for the present study was quantitative approach by using descriptive research design. The study was conducted in Saveetha Medical College and Hospital with 100 samples who satisfied the inclusion criteria were selected by using non probability purposive sampling technique. The Demographic data consisting of age, gender, education level, duration of dialysis, causes of renal failure. The satisfaction level was assessed using 5-point Likert scale among haemodialysis patients. The quality of life was assessed using 5-point Likert scale among haemodialysis patients. The project has been approved by the ethical committee of the institution. Informed consent was obtained from the participants before initiating the study. The data were collected and analyzed by using descriptive and inferential statistics.

## Results

The current study reveals that out of 100 patients Majority of the participants belong to the age group of 41 to 50 years (48%), 64% were males, 61% had primary education. Regarding duration of dialysis, 19% had 21 to 50 sessions, 41% had 51 to 100 sessions and 40% of them had more than 100 sessions of dialysis. Regarding to cause of renal failure, 19% had arterial hypertension, 42% had diabetes mellitus, 29% had polycystic kidneys and 10% had other related problems.

Regarding to level of satisfaction on dialysis procedure, 16% were completely dissatisfied, 37% were dissatisfied, 18% were neither satisfied nor dissatisfied, 12% were satisfied and 17% were completely satisfied. (Table 1).

**Table 1: Assessment of satisfaction level among haemodialysis patients**

Level of Satisfaction	Frequency	Percentage (%)
Completely dissatisfied	16	16
Dissatisfied	37	37
Neither satisfied nor dissatisfied	18	18
Satisfied	12	12
Completely satisfied	17	17

Regarding to level of quality of life among haemodialysis patients, 8% had very negative impact, 42% had negative impact, 22% had no impact, 23% had positive impact and 5% had very positive impact. (Table 2).

**Table 2: Assessment of quality of life among haemodialysis patients**

Level of Satisfaction	Frequency	Percentage (%)
Very negative impact	8	8
Negative impact	42	42
No impact	22	22
Positive impact	23	23
Very positive impact	5	5

The current study also reveals that there is moderate positive correlation ( $r=0.682$ ) between satisfaction level and quality of life among the haemodialysis patients. The duration of dialysis associated with better effect ( $P=0.030^{**}$ ) on satisfaction level among haemodialysis patients. The education level associated with better effect

( $P=0.021^{**}$ ) on quality of life among haemodialysis patients.

## Discussion

The current study reveals that out of 100 patients Majority of the participants belong to the age group of 41 to 50 years (48%), 64% were males, 61% had primary education. Regarding duration of dialysis, 19% had 21 to 50 sessions, 41% had 51 to 100 sessions and 40% of them had more than 100 sessions of dialysis. Regarding to cause of renal failure, 19% had arterial hypertension, 42% had diabetes mellitus, 29% had polycystic kidneys and 10% had other related problems.

Regarding to level of satisfaction on dialysis procedure, 16% were completely dissatisfied, 37% were dissatisfied, 18% were neither satisfied nor dissatisfied, 12% were satisfied and 17% were completely satisfied.

The present study findings were supported by **M. Al Eissa** who reported that Patients were recruited from 3 Saudi dialysis centers. Using 1 to 10 Likert scale, the patients were asked to rate the overall satisfaction with, and the overall impact of, their dialysis therapy on their lives and to rate the effect of the dialysis therapy on 15 qualities of life domains. Results are 322 patients were recruited (72.6% of the total eligible patients). The mean age was 51.7 years ( $\pm 15.4$ ); 58% have been on dialysis for  $> 3$  years. The mean Charlson Co morbidity Index was 3.2 ( $\pm 2$ ), and Kt/V was 1.3 ( $\pm 0.44$ ). The mean satisfaction score was ( $7.41 \pm 2.75$ ) and the mean score of the impact of the dialysis on the patients' lives was  $5.32 \pm 2.55$ .<sup>13</sup>

Regarding to level of quality of life among haemodialysis patients, 8% had very negative impact, 42% had negative impact, 22% had no impact, 23% had positive impact and 5% had very positive impact.

**Abraham et al. (2012)** who Assessed the quality of life in patients on haemodialysis and the impact of counselling. The study revealed a remarkable difference in the QOL of HD patients in the test group during their first and second visits, while the control group showed only a slight or no change. There was an increase in the overall QOL of the test group patients when compared with the control group, although the baseline values are similar. The QOL of patients in the test group was compared with the control group using the independent t test. It showed that all the domain scores of the test group was significantly higher than the control group

( $P < 0.001$ ). Thus, patient counselling seemed to play an important role in improving the QOL by changing their psychological thinking and initiating them toward spirituality.<sup>14</sup>

The current study also reveals that there is moderate positive correlation ( $r=0.682$ ) between satisfaction level and quality of life among the haemodialysis patients. The duration of dialysis associated with better effect ( $P=0.030^{**}$ ) on satisfaction level among haemodialysis patients. The education level associated with better effect ( $P=0.021^{**}$ ) on quality of life among haemodialysis patients.

### Conclusions

This study of patient satisfaction and quality of life with different aspects of long-term haemodialysis care suggests that patients' needs are not being fully met. The findings suggest that meeting patient expectations about information on dialysis choices and prognosis may be critical for improving patient experiences of long-term dialysis care and can form the basis for future healthcare services research in the dialysis setting.

**Ethical Clearance:** This project has been approved by the ethical committee of the Saveetha Institute of Medical and Technical Sciences.

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**Conflicts of Interest:** The authors declare no conflicts of interest.

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