A study to assess the quality of life among patients with chronic kidney disease Undergoing Hemodialysis in Narayana Medical College Hospital, Nellore

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Abstract
Background: Chronic renal failure is a progressive, irreversible deterioration of renal function in which the body’s ability to maintain fluid and electrolyte balance fails, resulting in uremia or azotemia. The Indian Society of Nephrology (2017) indicates that 1 in 10 persons in the general population are estimated to have some form of chronic kidney disease (CKD). About 1,75,000 new people have kidney failure (Stage V CKD) every year in India and require dialysis and/or kidney transplantation. It has also been estimated that about 60% to 70% of CKD cases are offshoots of diabetes and hypertension. Statistics in Andhra Pradesh (2017) among all districts in Andhra Pradesh, cases of Chronic Kidney Disease (CKD) are on the high in Srikakulam, where more than 13,000 persons, suffering from diseases related to kidney, were screened in the Uddanam area, alone.

Objective: To assess the quality of life among patients with CKD undergoing hemodialysis

Materials and Methods: Descriptive study was conducted among 100 patients above 30 yrs of age in NMCH by using convenience sampling technique was used. Data was collected by using structured questionnaire. Data was analyzed and tabulated according to the objectives.

Results: The study result revealed that, 58 had average quality of life, and 42 had poor quality of life among patients with CKD undergoing hemodialysis. There is significant association between the socio-demographic variables of age, gender, education, religion, occupation, family history of CKD and number of times hemodialysis attended. There is no significant association between the socio-demographic variables of family income, type of family, duration of illness, duration of hemodialysis.

Conclusion: The study concluded that majority of patients are having poor and average quality of life those who are undergoing hemodialysis.

Keywords: Quality of life, chronic kidney disease, hemodialysis

Introduction
Chronic renal failure is a progressive, irreversible deterioration of renal function in which the body’s ability to maintain fluid and electrolyte balance fails, resulting in uremia or azotemia.

CKD is a life-threatening disease that leads to numerous and severe symptoms and complications. These severe co-morbid conditions will have a major impact on the affected patients HRQOL.

Patients on hemodialysis have a poor health-related quality of life (HRQOL) and present with complications such as depression, malnutrition, and infection. Many of them suffer from impaired cognitive functioning such as memory loss and abnormally low concentration, as well as other unhealthy physical, mental, and social aspects of life that can affect even the simplest activities of daily life.

Therefore, it is useful to determine the level of renal function related to the decreasing point of HRQOL for the adequate intervention to enhance HRQOL in time.

Quality of life of hemodialysis patients
Quality of life (QOL) is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life.

Hemodialysis alters the life style of the patient and family and interferes with their lives. The major areas of life affected by ESRD and its treatment includes employment, eating habits,
Vacation activities, sense of security, self-esteem, social relationships, and the ability to enjoy life. Due to these reasons, the physical, psychological, socioeconomic, and environmental aspects of life are negatively affected, leading to compromised QOL.

Need for the study
WHO- Conducted a study, Global burden of disease in 2015, 1.2 million people died from kidney failure, an increase of 32% since 2005. According to the national kidney fact sheet, 2017, 30 million people are estimated to have CKD. 48% of those with severely reduced kidney function but not on dialysis are not aware of having CKD. Most people (96%) with kidney damage or mildly reduced kidney function are not aware of having CKD.

The Indian Society of Nephrology (2017) indicate that 1 in 10 persons in the general population are estimated to have some form of chronic kidney. (CKD). About 1,75,000 new people have kidney failure (stage V CKD) every year in India and require dialysis and/or kidney transplantation. It has also been estimated that about 60% to 70% of CKD cases are offshoots of diabetes and hypertension. Statistics in Andhra Pradesh (2017) among all districts in Andhra Pradesh Cases of Chronic Kidney Disease (CKD) are on the high in Srikakulam, where more than 13,000 persons, suffering from diseases related to kidney, were screened in the Uddanam area, alone.

Problem statement
A study to assess the quality of life among patients with Chronic Kidney Disease undergoing hemodialysis in NMCH Nellore.

Objectives
1. To assess the quality of life among patients with CKD undergoing hemodialysis.
2. To find out the association between the quality of life among patients with CKD undergoing hemodialysis with their selected socio demographic variables.

Assumption
CKD Patients undergoing hemodialysis may have good quality of life.

Delimitation
The study will be conducted only in dialysis unit, NMC. Sample size 100 only. Duration is 2wk.

Projected outcomes
The study would help to assess the quality of life among CKD Patients undergoing hemodialysis in NMCH.

Materials and Methods
Research approach: Quantitative research approach
Research design: Cross sectional descriptive research design.

Setting of the study
Research setting: The study was conducted in dialysis unit at Narayana Medical College Hospital, Nellore. The hospital comprises 1700 beds with all specialties and well equipped with modern equipments and standard procedure. It was located in 2nd floor super specialty with 22 beds and 20 dialysis machine and everyday minimum 60 patients and maximum 80 patients are getting admission for hemodialysis.

Population
Target population: Patients with CKD undergoing hemodialysis.

Accessible population: Patients who were admitted with CKD undergoing hemodialysis in NMCH.

Sample: The sample was patients with CKD undergoing hemodialysis admitted in hemodialysis unit, NMCH who fulfill the inclusion criteria.

Sampling techniques: Non probability convenience sampling technique was used

Sample size: The sample size of the study was 100 participants.

Sampling criteria
Inclusion criteria
Age above 30 years
Both gender
Patients with CKD undergoing hemodialysis
Who can speak and understand English and Telugu
Who are willing to participate in the Study

Exclusion criteria
Who are less than 20 yrs.
Patients with neurological problem
Unconscious patients
Patient with mental illness.

Description of Tool
PART-I: Socio demographic variables
Age, gender, education, religion, occupation, income, marital status, type of family, co-morbid disease, history of CKD, Duration of illness, Duration of hemodialysis, No of hemodialysis attended.

PART-II
Modified Quality of life scale was used. (WHOQOL-BRIEF).

Data Analysis: Data was analyzed by using descriptive and inferential statistics. This chapter deals with analysis and interpretation of data analysis based on the objectives of the study. The data was collected from the patients receiving hemodialysis on Quality of life in Narayana Medical College Hospital Nellore.

Section I- Frequency and percentage distribution of socio demographic variables of patients receiving hemodialysis.

Section II- Frequency and percentage distribution of quality of life among patients on hemodialysis

Section III- Association between the quality of life among patients on hemodialysis with selected socio demographic variables of patients with CKD.
Results
The results show that frequency and percentage distribution with concern to age 18(18%) were between 30-40 years, 18(18%) were between 41-50 years, 36(36%) were 51-60 years and 28(28%) were >61 years. Context to gender 54(54%) were male and 23(46%) were female, pertaining to education 32(32%) were illiterates, 26(26%) had primary education, 16(16%) had secondary education and 26(26%) were graduates/post graduates. According to religion 44(44%) were Hindu, 30(30%) and 26(26%) were Christians. context to occupation 26(26%) were coolie, 26(26%) were farmers, 24(24%) were employed and 12(24%) were un employed. pertaining to family income 36(36%) earn Rs.5001-7000/month, 36(36%) earn Rs.7001-9,000/month and 28(28%) earn Rs.9,000. With regard to type of family 64(64%) were nuclear family and 36(36%) were joint family. regard to family history of CKD 54(54%) were told yes and 46(46%) were told no. With regard to duration of illness 28(28%) were 2 years, 34(34%) were 3 years and 38(38%) were > 4 years. context to number of hemodialysis attended 30(30%) were attended hemodialysis attended 1-10 times, 36(36%) were attended 11-20 times and 34(34%) were attended 21-30 times.

Table 1: Frequency and percentage distribution of quality of life based on modified WHO QOL checklist among patients on hemodialysis.

<table>
<thead>
<tr>
<th>Quality of life</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
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<tbody>
<tr>
<td>Poor</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Average</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Fig 1: Quality of life

Association between quality of life among patients on hemodialysis with their selected socio demographic variables
There is significant association between the socio demographic variables of age, gender, education, religion, occupation, family history of CKD and number of times hemodialysis attended. There is no significant association between the socio demographic variables of family income, type of family, duration of illness, duration of hemodialysis attended.

Discussion
The discussion of the present study was based on the findings obtained from the descriptive and inferential statistical analysis of collected data.

Major findings of the study
- With concern to age, 36(36%) were 51-60 years.
- In context to gender 54(54%) were male.
- Pertaining to education 32(32%) were illiterates.
- In accordance religion 44(44%) were Hindu.
- In context to occupation 26(26%) were coolie and farmers.
- Pertaining to family income 36(36%) earn Rs.5001-7000/month and earn Rs.7001-9,000/month.
- With regard to family history of CKD 54(54%) were told yes.
- In context to duration of illness 38(38%) were > 4 years.
- Context to duration of hemodialysis 58(58%) were >1 year.
- Context to number of hemodialysis attended 3036(36%) were attended hemodialysis.

Conclusion
There is significant association between the socio demographic variables of age, gender, education, religion, occupation, family history of CKD and number of times hemodialysis attended. There is no significant association between the socio demographic variables of family income, type of family, duration of illness, duration of hemodialysis attended.

References