A Descriptive Study to Assess the Quality of Life of Patients Undergoing Hemodialysis in Sharda Hospital, Greater Noida

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Abstract:-

➢ *Background of the Study:*
Assessment of QoL of patients with ESRD and CKD has been serving a notable purpose in evaluating the influence of the disease on patients. ESRD is a chronic disease condition that significantly degrades a patient's health-related QoL, mostly because it places barrier on a patient's health and wellness inclusive of physical health, psychological health, and social health.

➢ *Aim of the Study:*
The main purpose of the research study is to assess the QoL of patients undergoing haemodialysis and to find out the relationship between QoL with selected socio-demographic variables.

This study also examines the effects of haemodialysis on patient's ability to perform activities of daily living (ADLs).

➢ *Methods:*
It is a descriptive study carried out among 50 patients of Sharda Hospital, Greater Noida. Non-probability convenience sampling technique was used. The data was collected through a WHOQOL-BREF assessment scale and a validated, self-designed socio-demographic tool.

➢ *Results:*
The result shows that there is a notable association (p<0.05) between gender and QOL (i.e. males are having better quality of life than females.). Majority 48.0% of the patients describe their overall QoL as fair 38.0% describe it as bad and about 14.0% describe it as good.

➢ *Conclusion:*
The quality of life assessment revealed that approximately half of the patients who participated in the research have rated their quality of life as fair, while a significant portion considered it to be bad and a smaller percentage reported a good quality of life.

➢ *Activities of Daily Living:*
Collectively describes fundamental skills required to independently care for oneself, such as bathing, eating etc.

Keywords:- Chronic Renal Disease: Condition Characterized by the Gradual Loss of Kidney Function Over a Period of Time.

I. INTRODUCTION

End-stage renal failure is an atrocious illness which drastically reduces patient's health-related life quality of life mostly because this disease affects or limits virtually every aspect of their everyday existence. Haemodialysis is a challenging procedure for patients that necessitates many hospital or dialysis clinic appointments, typically three times a week, necessitating considerable changes to the patients' daily routine.

When the kidneys can no longer efficiently perform this function, haemodialysis is used to remove waste, salt, and fluid from the blood and out of the body. This distinguishes it from peritoneal dialysis, which works by using the patient's abdomen's peritoneum as a semi-permeable membrane to exchange fluid and other dissolved compounds with the blood. One treatment for treating advanced kidney failure is haemodialysis, which can enable someone with failing kidneys to lead an active life.

Haemodialysis can assist the body in regulating blood pressure and preserving a healthy fluid and mineral balance, including potassium and salt. Haemodialysis typically starts well before the kidneys have collapsed to the point of posing a threat to life. Haemodialysis is a severe disease which patients don't have to bear it alone because they must

collaborate actively with the healthcare staff, which includes a kidney specialist and other health care professionals having expertise in haemodialysis and its management. Quality of life is always considered when managing patients on haemodialysis who have end-stage renal disease or other diseases. Numerous studies have shown that the haemodialysis patient population has lower life satisfaction and higher rates of depression. Quality of life has been associated with an increase in mortality as well as comorbidities like depression and hunger, in addition to the severity of the illness state or morbidity.

The number of medicines, collateral conditions, age, length of haemodialysis, anaemia, and other factors are all known to have an impact on the QoL of haemodialysis patients. Haemodialysis (HD) and peritoneal dialysis (PD) are the two common forms of dialysis therapy for End-Stage Renal Kidney Disease. The question of selection from the modes of dialysis, whether PD or HD, remains a subject of debate. The quality of life (QoL) of patients undergoing haemodialysis should be scrutinized in two major aspects: kidney-specific QoL and general QOL. Kidney-specific QoL deals with the evaluation of signs and symptoms of any kidney disease, the burden of the kidney related illnesses on activities of daily living (ADLs), and The effects of renal disease, whereas general QoL assessment is inclusive of physical, physiological, social, and environmental wellbeing.

This research study will focus mainly on the general quality of life of patients undergoing haemodialysis.

While general QoL assessment considers physical, physiological, social, and environmental wellbeing, kidney-specific QoL assessment assesses the signs and symptoms of any kidney disease, the burden of the disease on activities of daily living (ADLs), and the effects of renal disease, The general QoL of patients will be the focus of this investigation.

II. METHODOLOGY

The chapter includes methods of assessing the QoL of patients going through haemodialysis procedure in the dialysis ward of Sharda Hospital, Greater Noida. It is a descriptive study and deals with the research approach, design, place for conducting research, population, sample and sampling techniques, duration of the study, tools for data collection and the plan for data analysis.

➤ *Research Approach*
The research approach used in the study is Quantitative Approach.

➤ *Research Design*
The schematic representative of research design adopted for this study is **descriptive Design**.
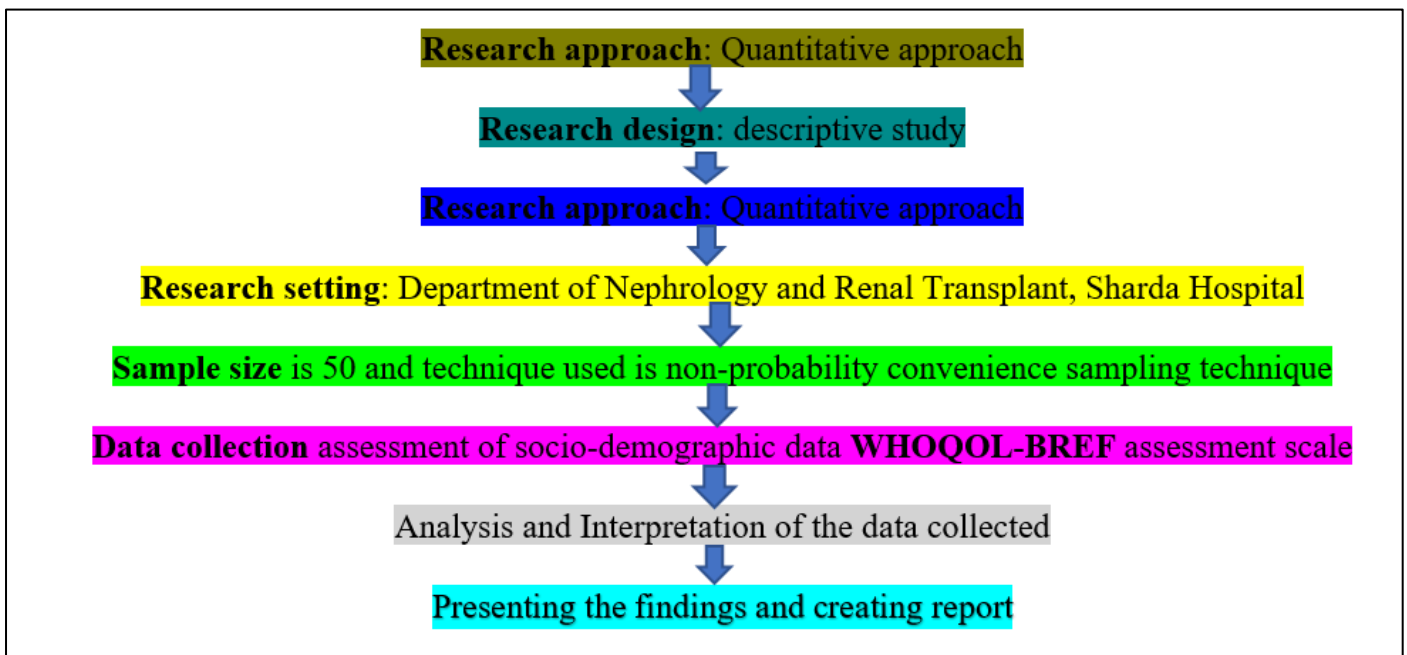

Fig 1: Schematic Representation of Research Design

➤ *Variables*

• *Independent Variable*
Age, gender, type of family, domicile, education, marital status, occupation, monthly income, socio-economic status, duration of illness, age during the onset of illness, prior hospitalizations, number of haemodialysis in a week, co-morbid medical conditions and general quality of life.

• *Outcome Variables*
Average/ mean scores for WHOQOL-BREF questionnaires, Chi-square findings for selected socio-demographic variables, average/mean scores for sociodemographic variables.

➢ *Research Setting*

The research study was conducted in dialysis ward, Department of Renal Sciences and Transplant, Sharda Hospital, Greater Noida.

➢ *Population*

• *Target population*

The target population comprised of patients admitted in the dialysis ward of Sharda Hospital, having diagnosis of CKD and ESRD.

• *Accessible population*

The population comprised of patients having diagnosis of CKD and ESRD aged above 18 years, who were undergoing the procedure of haemodialysis in the dialysis ward of Sharda Hospital, Greater Noida.

➢ *Sample*

The sample of current study includes patients diagnosed with Chronic Kidney Disease (CKD) or End-Stage Renal Disease (ESRD), which requires the patient to undergo routine haemodialysis in the dialysis ward of Sharda hospital, Greater Noida all based on the inclusion criteria.

➢ *Sampling Techniques*

Non-probability Convenience sampling techniques.

➢ *Sample Size Calculation*

This study includes data collection from about 50 subjects.

• *Inclusion Criteria*

➢ *Criteria for Sample Selection*
• Patient admitted in dialysis ward.
• Patient of both genders, aged above 18 years Patient who can speak Hindi or English

• **Exclusion Criteria:** None

➢ *Description of Data Collection Instrument Whoqol-Bref*

WHOQOL-BREF is an instrument designed for assessing QoL standardized by WHO. It comprises of about 26 inquiries and is one of the most frequently used instruments for the assessment and comparison of quality of life of people belonging to different regions and cultural backgrounds.

WHOQOL-BREF is available in many languages; the ones used in this study are the English and Hindi version of it. It is classified into four main categories; physical health (7 questions), Psychological health (6 questions), environmental health (8 questions) and social relationships (3 questions).

The physical health category includes physical mobility, ability to perform activities of daily living (ADL)s, sleep, energy and pain management. The psychological health category measures negative thoughts, self-image, self-esteem, positive attitudes, mentality, memory concentration, learning ability and mental status. The social relationship category includes questions on personal relationship, social support and sex life. The environmental health category focusses on issues relates to living physical environment, safety, financial resources, general environment (noise, air pollution, water contamination etc.) and transportation.

Table 1: Domains of WHOQOL-BREF

Domain	Facet	Question number in WHOOL-BREF
Global items	**Overall quality of life**	**1**
Physical health	General health	2
	Pain & discomfort	3
	Dependence on medical substances and medical aids	4
	Energy and fatigue	10
	Mobility	15
	Sleep &rest	16
	Activities of daily living	17
	Work capacity	18
Psychological Health	Positive feelings	5
	Spirituality, religion and personal 6 beliefs	6
	Thinking, learning, memory and 7 concentration	7
	Bodily image and appearance	11
	Self-esteem	19
	Negative feelings	26
Social Relationships	Personal relationships	20
	Sexual activity	21
	Social support	22
Environmental Health	Freedom, physical safety and	8
	security	9
	Physical environment	12
	Financial resources	13

	Opportunities for acquiring new information and skills	14
	Participation in and opportunities for recreation/ leisure activities	23
	Home environment	24
	Health and social care; accessibility and quality Transport	25

> *Validity*

The tool used for the present study (WHOQOL-BREF) is a tool standardized by WHO A list of experts provided their expert judgment on the degree of relevance for each item on the socio-demographic tool.

> *Reliability*

The domains/ categorical questionnaires of WHO-BREF has shown to be a valid and reliable measure of life satisfaction, showing consistent reliability suited for use with different age groups and population.

> *Procedure and Data Collection*

After getting approval for using the WHOQOL-BREF instrument from WHO, the researchers introduced themselves to the study participants. A written consent was obtained from the eligible and willing participants after explaining the purpose of the study. Personal information and clinical data were collected using WHOQOL-BREF scale and self-designed socio-demographic tool. The data collection procedure required about 10-20 minutes for each participant. The data will be computed and analysed by appropriate statistical methods.

> *Plan for Data Analysis*

Every category on WHOQOL-BREF is graded with the score starting from 1 to 5 in which higher scores denote higher quality of life and vice versa.

Statistical analysis was carried out using statistical packages for SPSS 20.0 for Windows (SPSS Inc., Chicago, IL, USA). Continuous and categorical variables was expressed as mean ± SD and frequency, percentages respectively. Chi-square test was applied to see association between socio-demographic variables and Quality of life. Two-sided p values will be considered as statistically significant at $p<0.05$ and insignificant if $p>0.05$.

III. FINDINGS OF THE STUDY

A. *Socio- Demographic Details of the Respondents*

Data reveals that majority of the respondents 18 (36%) falls in the age group of 31-40 years, 12 (24%) fall in the age group of 41-50 years, 9(18.0%) falls in the age group of above 60 years , 8 (16%) falls in the age group of 20-30 years and 3 (6%) in the age group of 51-60 year.

Data analysis suggests out of 50 respondents, 37 (74.0%) were male and 13 (26.0%) were female. Most of the respondents 26 (52.0%) are from Nuclear family.

Most of the respondents 26 (52.0%) are from Rural area. With regard to educational status; 9 (18.0%) of the respondents haven't received any formal education, 11 (22%) have received primary level education, another 11 (22.0%) have received secondary level education, 4 (8.0%) have

received education up to undergraduate level and 15 (30.0%) have received education more than undergraduate level.

- The data reveals that greater number of the respondents 21 (42.0%) are currently unemployed, 13 (26.0%) are skilled workers, 8 (16.0%) are unskilled workers and another 8 (16.0%) are professional workers.
- Majority of the respondents 43 (86.0%) were married.
- 25 (50.0%) of the respondents have a monthly income of about ten thousand rupees.

B. *Medical Findings of Patients Undergoing Hemodialysis*

- Majority of the patients undergoing haemodialysis, 35 (70.0%) were diagnosed with CKD
- With reference to the data collected from the patients, majority 34 (68.0%) of the patients were associated with comorbid conditions.

C. *Analysis of the Overall QOL of the Respondents*

Majority 24 (48.0%) of the patients describe their overall QoL as fair, 19 (38.0%) of the patients describe their overall QoL as bad and about 7 (14.0%) of the patients describe their overall QoL as good.

D. *Relation Between Socio-Demographic Variable and Quality of Life*

The chi-square results suggest remarkable relation ($p<0.05$) between gender (sociodemographic variable) & QOL. The results show that Male patients undergoing haemodialysis are having better quality of life compared to female patients.

A Finding similar to this was found in Raiana Lidice's research study of QoL and associated factors related to HD where majority of male genders had better QoL in comparison to females.

E. *Assessment of the Effects of Hemodialysis on Patients's Adls*

Above data reveals that majority 16 (32.0%) of the patients do not feel physical pain to the extent that prevents them from performing daily tasks, 12 (24.0%) and 14 (28.0%) feel mild to moderate level of physical pain where as a minority of 7 (14.0%) and 1 (2.0%) feel extreme level of physical pain that hinders their daily activities.

The findings of Maria's research, 2019 states that majority of the patients 80.3% of the HD patients had high dependency rate for ADLs.

IV. CONCLUSION

This research aimed to explore the demographic characteristics and QoL among study participants with various medical findings. The study included 50 participants, and their demographic variables such as age, gender, family type, place of residency, educational qualification, employment, marital status, and monthly income was analysed. Additionally, medical findings related to diagnosis, period of illness, age of onset, no. of dialysis sessions, and comorbidity were examined.

The findings formulated from research study suggested that most of the respondents were between the ages of 31-40 years and belonged to a joint family. Most participants resided in rural areas and had attained secondary education. In terms of occupation, a significant proportion were unemployed. Furthermore, the majority of participants were married and had a monthly income of 10,000.

Regarding medical findings, the most prevalent diagnosis was chronic kidney disease (CKD), and a considerable number of participants had been living with the illness for 1 year. The age of onset of the disease varied across different age groups. Dialysis was performed two to three times a week for the majority of participants, and comorbidity was reported by around one-third of the participants.

The QoL assessment revealed that approximately half of the participants assessed their QoL as fair, whilst a significant portion considered it to be bad. A smaller percentage reported a good QoL.

The chi-square method was formulated and showed a notable relation between gender and QoL, with males having a better quality of life compared to females. However, no significant associations was observed for the other demographic variables.

Overall, these findings provide insights into the socio-demographic characteristics and QoL among the study participants. The research highlights the importance of considering gender differences in assessing and improving QoL among individuals with CKD.

DECLARATION BY AUTHORS

- **Ethical Approval:** Approved

Permission to conduct the study was obtained from Sharda School of Nursing Science and Research, Sharda University and Department of Renal Sciences and Transplant, Sharda Hospital. Well informed and written consent was obtained from every individual who participated in the study after a brief explanation regarding the study by the Researcher. Confidentiality was maintained during the data collection throughout the period of study.

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