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RESEARCH ARTICLE

QUALITY OF LIFE OF CHRONIC KIDNEY DISEASE PATIENTS UNDERGOING MAINTENANCE HEMODIALYSIS.

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Key words:-

Hemodialysis, Chronic Kidney Disease, Quality of life.

Abstract

Introduction: Chronic kidney disease (CKD) is a complex disease affecting more than twenty million individuals globally. CKD is now documented as a foremost health problem worldwide including India which has a negative impact on the quality of patients' life. Quality of life is one of the parameters to check the improvement of hemodialysis treatment among CKD patients.

Objectives: The objectives of this study were i) To assess the quality of life of CKD patients undergoing maintenance hemodialysis ii) To find the association between Quality of life and socio demographic variables among CKD patients undergoing maintenance hemodialysis iii) To find the association between quality of life and clinical variable among CKD patients iv) To find the association between various domains of Quality of Life score and Socio demographic variables among CKD patients undergoing hemodialysis v) To find the correlation between domains of quality of life and Biochemical and Physiological Parameters vi) To prepare a booklet on Home Management Guidelines on Maintenance Hemodialysis for the patients attending hemodialysis unit of ILBS.

Methods: A descriptive cross-sectional survey design was adopted using convenient sampling technique seventy patients having CKD and undergoing maintenance hemodialysis at dialysis unit of Institute of Liver and Biliary Sciences. The patients who were 18 years of age or above and who were able to communicate in Hindi and English were included in the study. The critically ill patients were not included in the present study. The reliability of the tool was established by parallel form method and the value was found to be 0.9 using SPSS Version 22. A structured questionnaire was used to collect the data related to demographic and clinical variable. Standardized test Kidney Disease Quality of Life-36 scale (KDQOL-36) was used to assess the Quality of life of CKD patients undergoing maintenance hemodialysis. The home management guideline for the patient was prepared and validated. Data was collected from the month of January and February 2018 at dialysis unit of ILBS

Data was analyzed using descriptive and inferential statistics. The tests of significance used in the study are Student t-test, one way ANOVA, Post hoc analysis and Product moment coefficient of correlation.

Results: The mean age of the study group was 48 percent with 54.3 percent of patients in the age group of 36 years to 59 years.

Approximately 66 percent of the CKD patients were males. Nearly half the number of patients had been suffering from CKD for more than three years. More than half the number of patients (64.3 percent) found Hypertension as co-morbidity. The 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. The QOL was above average in 20 percent of patients where as below average level of QOL was seen in 18.6 percent of the patients. Domain wise analysis of KDQOL revealed that highest mean percent score QOL was 67.4 percent in domain "Symptoms of Kidney Disease"; followed by score of 42.14 percent in domain "Effects of Kidney Disease". The most affected domain was "Burden of kidney disease" with a lowest mean percent QOL score of 26.43 percent. There was a significant negative correlation seen in domain Mental component with pre dialysis systolic blood pressure ($r = - 0.241$, $p = 0.044$).

Conclusion: The present study findings indicate that CKD adversely affects the QOL of patients on maintenance hemodialysis. It revealed that the factors which affect the quality of life of CKD patients was age, gender, occupational status, presence of co-morbidity, duration of hemodialysis, Vascular access for hemodialysis.

Further it was found that the QOL in occupation of CKD patients had been affected. Patients who were on Government service was better QOL as compared to patients who were unemployed/dependent, pensioners and self employed. The QOL in males were better as compared to females, the QOL of patients in the age group 18 years 35 years, 36 years to 59 years and above 60 years was affected with highest affected age group of 18-35 years also the QOL had been affected by presence of Anemia, Hypertension and Diabetes mellitus in CKD patients with highest impact by anemia as the co-morbidity. Home management guidelines for maintenance hemodialysis were prepared and given to the CKD patients undergoing hemodialysis at dialysis unit of ILBS.

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Introduction:-

"Chronic kidney disease (CKD) is defined as either persistently low Glomerular Filtration Rate (GFR) less than 60ml/min/1.73m² or presence of markers of kidney damage (hematuria, proteinuria or abnormalities in imaging studies) for more than 3 months" (Hajhosseiny & Khavandi, 2002). Using this definition, about 10-13 percent of the general population is reportedly affected by CKD (Goldsmith, 2013).

Worldwide near about 1.1 million people suffer from chronic renal failure as reported by American Society of nephrology and in India the incidence of chronic renal failure in adults is 47, 11,375 as reported by All India Institute of medical sciences, New Delhi (2016).

In India, about 175,000 new people develop chronic kidney disease (CKD) every year and they need dialysis and/or kidney transplantation. It has also been estimated that about 60 percent to 70 percent of chronic kidney disease (CKD) cases are offshoots of diabetes and hypertension. Only about 3-4% get a kidney transplant, which is the best treatment for kidney failure and additional 20% to 25% can afford dialysis, indicating that majority of patients 70 percent do not receive the treatment of kidney failure either because of financial constraints or lack of facilities near their area (Indian Society of Nephrology, 2017).

Aim:-

The aim of this study is to assess the "Quality of Life of Chronic Kidney Disease patients undergoing Maintenance Hemodialysis, and to identify the factors that affect their Quality of Life".

Methods and Material:-

A total of 70 patients were selected using convenient sampling technique. The population in the present study comprised of all registered patients diagnosed with Chronic Kidney Disease and undergoing Maintenance Hemodialysis for more than three months. **Patients who are** Having primary diagnosis of CKD, Undergoing maintenance Hemodialysis through Arteriovenous fistula or permacath for more than three months, In the age group of 18 years and above, Able to communicate in Hindi or English, Attending dialysis unit of ILBS for maintenance hemodialysis were included in present study and the patients who were critically ill who require urgent hemodialysis at bed side are excluded from the study. The Kidney Disease Quality of Life-36 (KDQOL-36) tool used in this study, to establish the reliability of tool KDQOL-36 in the study setting, parallel form was used. Assessment of QOL of patients was done by administering two Scales simultaneously namely Scale I KDQOL-36 and Scale II Health related quality of life scale (HRQOL). It is a multidimensional concept that includes domains Physical, Mental, Emotional and social functioning. It goes beyond direct measures of population health, life expectancy and causes of death and focuses on the impact health status has on quality of life.

Both the tools were administered on five patients. The data obtained was tabulated in Microsoft excel spread sheet. Statistical computation was done for calculating the parallel reliability test value through SPSS.V.22. Reliability was found to be 0.90, which indicates that the tool has high reliability and can be used for the assessment of Quality of life

Ethical considerations: Written permission and administration approval for conducting the study was obtained. The institutional review board clearance was obtained from Scientific Review Committee and Ethics committee of College of Nursing. Ethics committee approval of College of Nursing

Result:-

Table 1:- Mean percentage and Standard Deviation of domain wise Quality of life scores
n=70

Domain	Mean %	Standard deviation	Median	Rank
Symptoms of kidney disease	67.41	15.54	64.58	I
Effects of kidney disease	42.14	20.63	40.63	II
Mental component	38.19	08.70	38.31	III
Physical component	34.72	09.65	32.47	IV
Burden of kidney disease	26.43	22.63	25.00	V
Total QOL Score	59.28	14.58		

The mean percentage Quality of life was found to be maximum (67.41 Percent) in domain “Symptoms of Kidney Disease”; followed by QOL score of 42.14 percent in domain “Effects of Kidney Disease”. The most affected domain is “Burden of kidney disease” with the lowest mean percentage as 26.43 percent. It shows that the quality of life is poor in domain “Burden of kidney disease” and Physical Component. The mean percentage of total QOL score was found to be 59.28 percent with a standard deviation of 14.58. In the order from better QOL scores to poor QOL scores, from the domains are ranked from I to V, namely Symptoms of kidney disease, Effects of kidney disease, Mental component, Physical Component and Burden of kidney disease respectively.

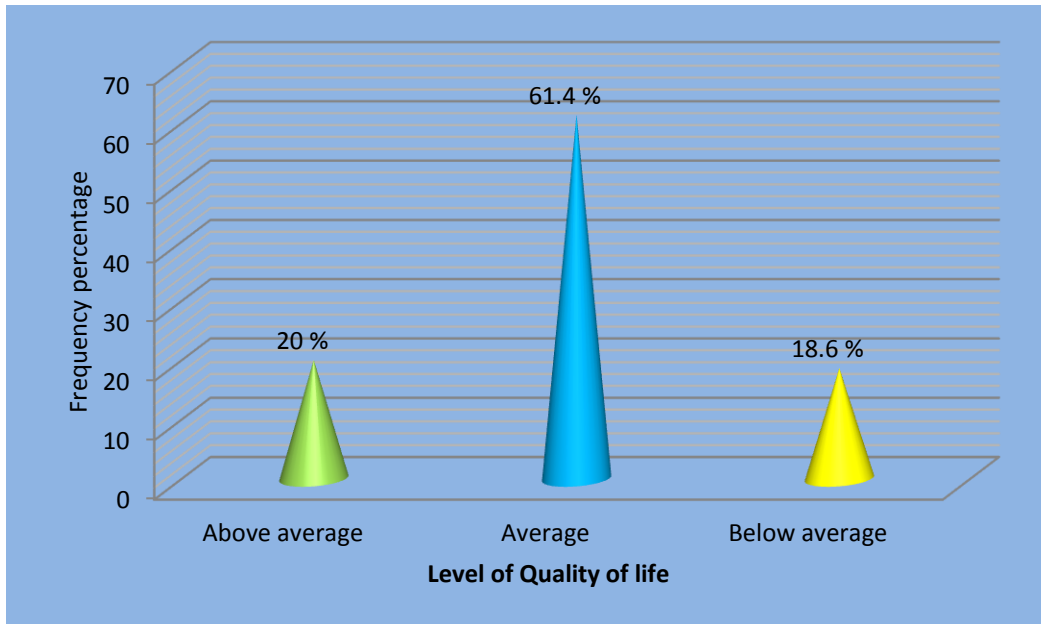


Figure 1:-A cone diagram showing the percentage distribution of quality of life among patients undergoing hemodialysis

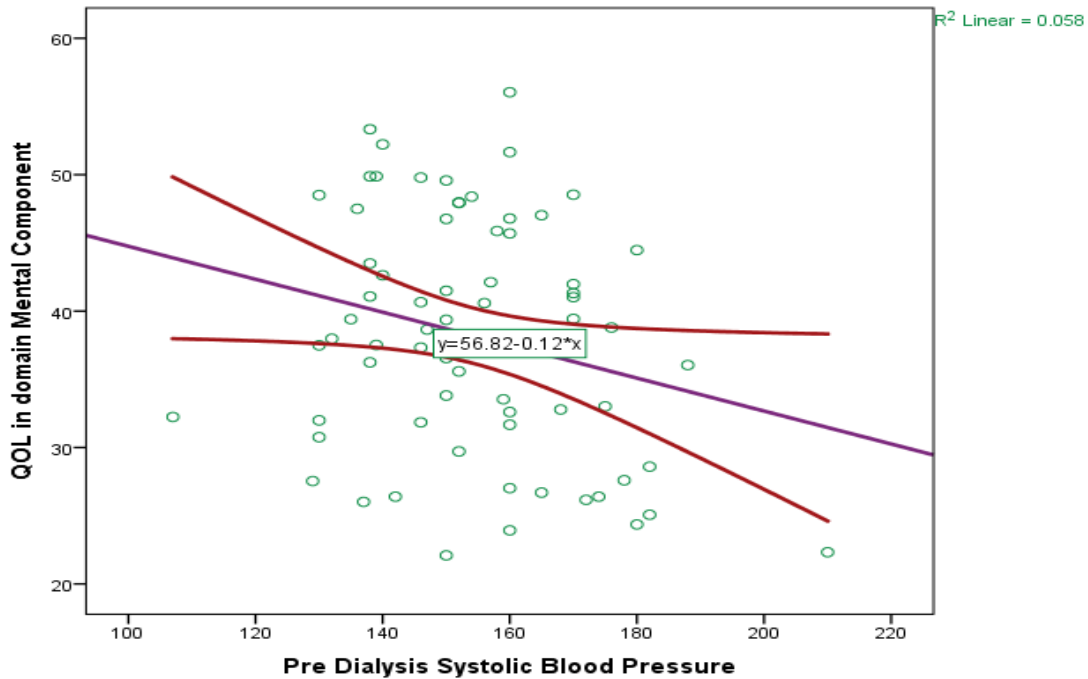


Figure 2:-A scatter plot diagram shows the negative correlation between Quality of life in domain “Mental component” and Pre dialysis systolic blood pressure.

It can be interpreted from the figure that increases in the pre dialysis systolic blood pressure decrease the quality of life patients in domain “Mental component”.

Discussion:-

The findings of the present study showed the mean percentage score of overall Quality of life (QOL) was found to be 59.28 percent with a standard deviation of 14.58 in the patients. This was higher than the QOL found in patients of other countries like in Guangzhou, China with a mean QOL score of (50.98 + 10.28) as reported by Zhang, Song and Yang (2008). These results may be due to the fact that the sample consisted of patients receiving dialysis for more than 2 years, had an overall understanding of their illnesses, the therapeutic measures undertaken and they accepted the fact that they were unwell.

The current study findings also showed that the mean percentage Quality of life was found to be maximum (67.41 Percent) in Domain "Symptoms of Kidney Disease"; followed by QOL score of 42.14 percent in domain "Effects of Kidney Disease". The most affected domain is "Burden of kidney disease" with lowest mean percentage of 26.43 percent. It shows that the quality of life is poor in domain "Burden of kidney disease" and Physical Component.

The present study is supported by the findings, research conducted by Manmaya & Shakya (2017) who also reported that the Quality of life was less in domain "Burden of kidney disease" with lowest mean percentage of 25 percent and it was found that the quality of life was better in domain "Symptoms of kidney disease" with a mean of 75 percent.

The findings of the present study were also similar to the findings in study done by Gyawali and Paudel (2013), which revealed that QOL in domain "Physical component" was most severely affected. This might be huge financial burden, greater degree of dependence felt by patients on hemodialysis (HD) and mental health is severely disrupted.

Limitations:-

It is a single centered study, Only Convenience sampling technique was used, and the study was confined to only seventy patients and only one dialysis unit **and** the investigator had time constrain in data collection. Variability in clinical parameters is expected over period of longer time and would influence the outcome in patients.

Conclusion:-

The present study findings indicate that CKD adversely affects the QOL of patients on maintenance hemodialysis. It revealed that the factors which affect the quality of life of CKD patients was age, gender, occupational status, presence of co-morbidity, duration of hemodialysis, Vascular access for hemodialysis.

References:-

1. Goldsmith DJ (2013). Cardiovascular disease in chronic kidney disease. Untying the Gordian knot. *Int J Clin Pract*; 67(1):14-31
2. Hajhosseiny R., Khavandi, K. (2002). K/DOQI clinical practice guidelines for chronic kidney disease: evaluation, classification, and stratification. *Am J Kidney Dis*; 39(2):266-270.
3. Manmaya, R., & Shakya N. (2017). Quality of life of patients undergoing hemodialysis in selected hospital. *International journal of nursing research and practice*; 4(1): 40-46.
4. Hill, N. R., Fatoba, S. T., Oke, J. L., Hirst, J. A., O'Callaghan, C. A., Lasserson, D. S., & Hobbs, F. D. R. (2016). Global Prevalence of Chronic Kidney Disease. A Systematic Review and Meta-Analysis. *PLoS ONE*, 11(7).
5. Jha, V., Garcia-Garcia, G., & Iseki, K. (2013). Chronic kidney disease: global dimension and perspectives. *Lancet*; 382(9888):260-272.
6. Josef, C., (2009). Prevalence of Chronic Kidney Disease in the United States. *The Journal of American Medical Association*; 34(1): 28-36.
7. Joshi, U., Subedi, R., Poudel, P., Ghimire, P. R., Panta, S., & Sigdel, M. R. (2017). Assessment of quality of life in patients undergoing hemodialysis using WHOQOL-BREF questionnaire: a multicenter.