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QUALITY OF LIFE AND CHRONIC RENAL FAILURE

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ABSTRACT

Aim of the study: To assess the quality of life among patients with chronic renal failure undergoing Hemodialysis and the post- renal transplant patients.
Background: The quality of life is the standard of health, comfort and happiness experienced by the group or an individual. This experience of the individual is affected when they fall sick. In case of the patients with chronic disease it is completely diminished. CKD burden is rising rapidly worldwide. India has the rising incidence of chronic kidney disease that will impose a major problem for both healthcare and economy of the country. The approximate prevalence of CKD in India is 800 per million people and the incidence is 150-200 per million people. Chronic kidney disease is being treated with the various renal replacement therapies and renal transplantation. The renal replacement therapies have increased the length of the stay of the patients with chronic kidney disease and the kidney transplantation has made the person to carry on with his normal living. It queries that do the patients lead a good quality of life with these treatment modalities.
Design: Descriptive research design.
Methods: Simple random sampling using lottery method was adopted for the study. A total of 50 patients participated in the study. The quality of life index dialysis version and quality of life index transplant version is used to assess the quality of life.
Result: 16% of post- transplant patients had good QOL whereas in dialysis patient none of them as good quality of life. 48% of hemodialysis patient and 76% of post renal transplant patients had average QOL. 52% of hemodialysis patient and 8% of post renal transplant patients had poor QOL. The quality of life of the patients on hemodialysis is less than the post renal transplant patients with mean and SD of 14.67 ± 1.54 and 18.10 ± 3.54 at $P < 0.0001$ respectively.
Conclusion: This study indicates that the quality of life of the patients in the dialysis is less than the patient undergone renal transplantation.

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INTRODUCTION

The quality of life is the standard of health, comfort and happiness experienced by the group or an individual. The holistic and eco-system conception views the worlds as an open, living system and emphasizes the interaction and interdependence of all phenomena that implies the individual organism always interacts with the physical and social environment. The health related quality of life also does not focus only on the good outcome of the therapeutic intervention provided but also the other environmental, social, physical and psychological factors in relation to the patient health.CKD burden is rising rapidly worldwide. India has the rising incidence of chronic kidney disease that will impose a major problem for both healthcare and economy of the country. The approximate prevalence of CKD in India is 800 per million people and the incidence is 150-200 per million people. Chronic kidney disease is being treated with the various renal replacement therapies and renal transplantation. They are said to be the interventions that will make individual to lead a normal life.

The renal therapies have increased the length of the stay of the patients with chronic kidney disease. Also the kidney transplantation has made the person to carry on with his normal living. It is queries that do the patients lead a good quality of life with these treatments.

Background

The health related quality of life assessment is the tools used by the professional health care provider to assess the effectiveness of the therapeutic intervention they made. Chronic kidney disease is the disease that emerges up with the high rate of morbidity. Hence it become necessary to evaluate the quality of life of the patients with chronic kidney disease. The global prevalence of CKD 2015 shows that Stage I is 3.5%, Stage 2 is 3.9%, Stage III is 7.6%, Stage IV is 0.4% and Stage V is 0.1%. But in India, there was not even a clear database for the study. The quality of life is very important aspect to live a peaceful life. Even with the disease, the individual when he lead a happy life is only because of the perception he made which differs from individual to individual. It might also because of the favourable factors around him. There are numbers of treatment emerged and also being in use to compensate the function of the damaged kidney. They can also be called as boon to the patients with chronic kidney disease. But it is the question that how far they give good quality of life to the patients.

The quality of life of hemodialysis patients was found to be considerably impaired when compared to that of healthy individuals of the general population as well as of renal transplant patients (Sathwik, 2008). The researcher find people with various problems in their life related to their health during her clinical posting in dialysis and nephrology ward among the patients with chronic renal failure. So the researcher is interested to the study to assess the quality of the life among chronic renal failure patients to find the ways to improve the well being of the patient and identify strategies to prevent the adverse reaction related to poor quality of life.

Aim of the study: Was to assess the Quality Of Life among chronic renal failure patients undergoing Hemodialysis and post renal transplant patients.

MATERIALS AND METHODS

Total 50 samples were selected for the study in Nephrology OPD.A total of 25 samples from Dialysis ward and a total of 25 post renal transplant samples from nephrology OPD who met the inclusion criteria was selected by simple random sampling method. After selecting samples for the study the researcher explained about the purpose of the study, rights to participate or with draw from the study to the patients. Informed consent was obtained after assuring the confidence. Demographic variables were collected by using structured questionnaire. And the quality of life was assessed using Quality of Life Index (QLI). Data were analyzed using the descriptive and inferential statistics.

Tools: Quality of Life Index dialysis version consist of 34 statements under the question "how satisfied are you with" and 34 statements under the question "how important to you is". The responses were rates in 6 point likert scale varying from very satisfied to very satisfied and very important to very unimportant respectively.

Quality of Life Index (QLI), kidney transplant version consist of 35 statements under the question "how satisfied are you with" and 34 statements under the question "how important to you is". The responses were rates in 6 point likert scale varying from very satisfied to very satisfied and very important to very unimportant respectively.

Scoring: Score interpretation was done using the computer syntax for SPSS-PC. The scores are interpreted for each domains such as total score, health and functioning score, social and economic score, psychological/spiritual score, and family score.

The possible range of score is 0-30 for each item. The final evaluation was interpreted as

Poor quality of life	:	< 15
Average quality of life	:	15- 23
Good quality of life	:	> 23

RESULTS

Table 1: Frequency and percentage distribution of demographic variables of patients undergoing hemodialysis and post- renal transplant patient

Demographic Variables	Hemodialysis patients		Renal-transplant patients	
	No.	%	No.	%
Age				
Less than 30 years	7	28%	13	52%
31-59 years	13	52%	12	48%
Above 60 years	5	20%	0	0%
Gender				
Male	15	60%	18	72%
Female	10	40%	7	28%
Education level				
Illiterate	11	44%	3	12%
Up to 10th	5	20%	6	24%
Up to 12th	5	20%	5	20%
Diploma/ Degree	4	16%	11	44%
Annual family income in Rupees				
< 25,000	13	52%	0	0%
25,000–50,000	5	20%	1	4%
50,000–1,00,000	2	8%	4	16%
>1,00,000	5	20%	2	80%
Employment status				
Working	11	44%	12	48%
Not working	10	40%	5	20%
Retired	4	16%	8	32%
Duration of receiving treatment in months				
3–6	2	8%	3	12%
6–12	9	36%	15	60%
13–24	8	32%	3	12%
> 24	7	28%	4	16%

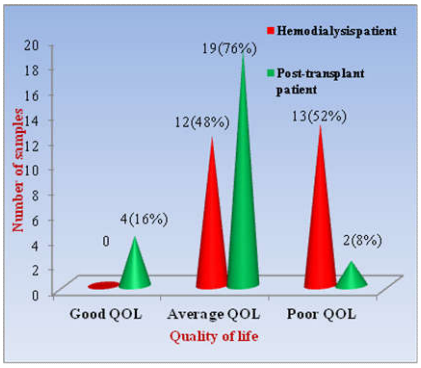

Figure 1. Frequency and percentage distribution of quality of life among patients undergoing hemodialysis and post- renal transplant patient

Table 2. Quality of life index scores among patients undergoing hemodialysis and post- renal transplant patient

Domains	Group	Mean± sd	P value Un paired t test
Overall score	Hemodialysis	14.67 ± 1.54	P< 0.0001
	Post transplant	18.10 ± 3.54	t = 4.44
			S***
Health and functioning	Hemodialysis	15.14 ± 5.23	P= 0.0016
	Post transplant	19.15 ± 2.80	t= 3.36
			S*
Social and economic	Hemodialysis	14.02 ± 2.70	P < 0.001
	Post transplant	20.05 ± 2.83	t= 7.60
			S***
Psychological and spiritual	Hemodialysis	20.14 ± 6.20	P= O.118
	Post transplant	18.02 ± 2.51	t= 1.588
			NS
Family	Hemodialysis	16.16 ± 1.57	P= 0.01
	Post transplant	19.02 ± 5.28	t= 2.58
			S*

The demographic variable educational level ($\chi 2$=7.929, p= 0.047502 significant at p <0 .05) and Annual family income ($\chi 2$=21.7857, p= 000072 significant at p <0 .05) shows significant association with the quality of the life among CKD patients.

DISCUSSION

The first objective was to assess the quality of life of CKD patients undergoing Hemodialysis patient.

The study results revealed that the 12 (48%) had average quality of the life and 13(52%) had poor quality of the life among dialysis patients. The overall scores shows 14.67 ± 1.54, the subscales for the domains like health and functioning was15.14 ± 5.23, social and economic wellbeing was 14.02 ± 2.70 psychological and spiritual wellbeing was 20.14 ± 6.20, family wellbeing was 16.16 ± 1.57. This study was supported by *Parthasarathi (2013)* who conducted a cross sectional study to analyse the quality of life of the patients on hemodialysis, post renal transplant patients, general health population and asthma patients using WHOQOL-BREF questionnaire and his study results revealed that in all the four domains like Physical health, Psychological health, Social relationship, and Environmental well being the patients on hemodialyis showed the decreased quality of life compared to all other group. The interesting fact to note that most of the patients on dialysis showed the decreased economical status and it is to be considered that the patient should be given attention by not only the health care workers but also by the hospital and the government to help the economical support.

The second objective was to assess the quality of life of CKD patients underwent renal transplantation.

Renal transplantation treatment was the boon to the patient suffering from the chronic renal failure. The transplantation has got its own restriction for the patient and mostly the side effects of the immune suppressive medications. Hence it was necessary to evaluate the patient for the quality of life among post renal transplantation patients**.** The study results revealed that the 4 (16%) of post- transplant patients had good quality of the life, 19(76%) had average quality of the life and 2(8%) of post renal transplant patients had poor quality of the life. The overall scores shows 18.10 ± 3.54, the subscales for the domains like health and functioning was 19.15 ± 2.80, social and economic wellbeing was 20.05 ± 2.83 psychological and spiritual wellbeing was 18.02 ± 2.51, family wellbeing was 19.02 ± 5.28.

This study was supported by *Luk W.S (2014)* who conducted a study to explore health-related quality of life of Chinese kidney transplant patients in Hong Kong. Non-structured interviews were conducted. The transcripts were analysed by qualitative content analysis. The study results showed that the participants have improved markedly in physical and social functioning, and have a better quality of life as a whole. And he concluded that to optimize post-transplant quality of life, a follow-up rehabilitation programme is recommended. Here in this study except for the domain psychological and the spiritual wellbeing all the other domains showed the marked significance compared to the hemodialysis group. Hence it is clear cut that there was a marked increased in the quality of life among the renal transplant patients than the hemodialysis patients.

The third objective was to associate the quality of life of CKD patients with the selected demographic variable

The demographic variable educational level and Annual family income shows significant association with the quality of the life among CKD patients. The patients who are educated and with good economic state among the CKD patients who under gone renal transplantation have shown better quality of life compared to the others in the transplantation group and hemodialysis group.

Recommendation

- A similar study can be done to compare the quality of life of CKD patients and other chronic diseases.
- Interventions that improve the quality of the life can be experimented.

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