QUALITY OF LIFE OF CHRONIC KIDNEY DISEASE PATIENTS UNDERGOING HAEMODIALYSIS

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Abstract

The patients suffering from chronic kidney disease (CKD) generally develop end stage renal disease (ESRD). These patients have to follow so much restriction in order to prevent complication and also have to undergo haemodialysis at periodic intervals. Generally the quality of life (QOL) of these patients is poor. This study examined the QOL of CKD patients undergoing haemodialysis at Gurgaon.

Keywords: Quality of Life, Chronic kidney Disease, Haemodialysis.

Introduction

Chronic kidney disease (CKD) is defined as a kidney damage or decrease in glomerular filtration rate for three or more months. CKD is associated with decreased quality of life (QOL), increases health care expenditure and premature death, and necessitate renal replacement therapy. Untreated CKD results in ESRD (End stage Renal Disease). CKD is a major health problem worldwide, with prevalence that increases with age and with a significant negative effect on health related quality of life (HRQOL) (Khan MA, 2012)..

If kidney diseases get worse then complications like hypertension, anaemia, osteoporosis, poor health and nerve damage etc may develop. These complications may develop slowly over a long period of time. When kidney diseases progress, it may lead to kidney failure demanding dialysis or kidney transplantation to maintain life (National Kidney Foundation, 2013).

The burden of chronic diseases, such as chronic renal disease, is considered to be one of the greatest challenges of the health systems of the 21st century. It is anticipated that by 2020, there will be 1200 cases of end-stage renal disease (ESRD) per million population (Zheng J, You LM, Lou TQ, Chen NC, Lai DY, Liang YY, et al, 2010). In 2013, 1,500,000 people in the world, 25,000 people in Iran, (Iranian Consortium of Dialysis) and 1500 people in Isfahan Province were reported to have undergone hemodialysis (Mojdeh S, Karimi S, Mehrabi A, Bakhtiari S, 2013). Chronic kidney disease (CKD) is an emerging global health problem. According to the Global Burden of Disease Study in 2010, chronic kidney disease rose from 27th in 1990 to 18th in 2010, in the list of causes of total number of global deaths (Nugent RA, Fathima SF, Feigl AB, Chyung D, 2011). CKD is a significant problem in Asia (Lozano R, Naghavi M, Foreman K, Lim S, Shibuya K, Aboyans V et al, 2012) with a prevalence of 11.9 % in Taiwan (Wen CP, Cheng TY, Tsai MK, Chang YC, Chan HT, Tsai SP, et al (2008) and 10.8 % in Mainland China (Zhang L, Wang F, Wang L, Wang W, Liu B, Liu J et al, 2012). In India 1,00,000 new cases of chronic renal failure presents each year of these only 15,000 manage to reach the stage of dialysis, rest 85,000 patients die for want of dialysis (WHO, 2012).

Although haemodialysis prolongs the life of patients, but the QOL becomes restrictive that may lead to physical, psychological, social, and economic complications (Khan MA, 2012). It can also be the leading cause of depression, anxiety, low self-esteem, impaired mental impression, and hopelessness for the patients. Many patients experience a state of conflict between dependency on others and the haemodialysis machine and a desire to be independent, and this affects their relationship with the people who are most important in their lives (Shasty C, Haj Babaei M, 2012). Economic, employment-

related, and social communication issues are among the social impacts of this disease and haemodialysis. Moreover, problems such as fatigue, infertility, sexual dysfunction, bone abnormalities, anaemia, cardiovascular problems, and gastrointestinal disorders cause frequent hospitalizations that, in turn, may lead to mental disorders and increased mortality rate (Bryan NS, Torregrossa AC, Mian AI, Berkson DL, Westby CM, Moncrief JW, 2013). Chronic renal disease and haemodialysis cause numerous psychological, social, cultural, and spiritual challenges for patients and their families. Overcoming these challenges is possible only through providing holistic support for the patient. It is worth emphasizing, however, that despite the support provided by family and professional caregivers for the patients, these patients still express dissatisfaction with this support and believe it to be inadequate (Dabirian A, Zolfaghari H, Abed Saidi H, Alavi-Majd H, 2008). In fact, patients, family caregivers, and healthcare practitioners seem to have different understandings of the notion of support (Rambod M, Rafii F, 2010).

Studies around the world had reported that the QOL of CKD patients are poor. (Joshi U et al (2017; Eric Y. F. Wan, Julie Y. Chen, Edmond P. H. Choi, Carlos K. H. Wong, Anca K. C. Chan et al, 2015;).

CKD and haemodialysis cause numerous psychological, social, cultural, and spiritual challenges for both patients and their families. Overcoming these challenges is possible only through providing holistic support for the patients. Today, despite the support provided by family and professional caregivers for the patients, patients still express dissatisfaction with the support provided and believe it to be inadequate. The concept of support consisted of psychological support, social support, accompanying the patient, and spiritual support. Therefore this concept should be considered in healthcare planning, in order to improve the health and quality of life of these patients and their adaptation to the disease and its treatment process. (Shahgholian N, Yousefi H, 2015).

Objectives

1. To assess the QOL of CKD patients undergoing haemodialysis.
2. To find out the association of QOL score with selected demographic variable.

Methodology

A non-experimental descriptive research design with cross sectional survey approach was undertaken to collect data from 100 CKD patients undergoing haemodialysis at Artemis Hospital, Gurgaon. The patients were selected by purposive sampling technique and a standardized tool, Ferrans and Power QOL Index Version-III was used to assess the QOL of CKD patients undergoing haemodialysis. Descriptive & inferential statistics were used to analyse the data.

Results

Results revealed that highest percentage (45%) of patients were in the age group of >50 years, 60% of them were male, majority 80% of patients were married, 70% of them belongs to nuclear family, 40% of them were having secondary education, majority 70% of patient were belonging to urban area, 40% of patients were having government jobs and highest percentage 60% of them were undergoing dialysis once a week.

Table 1: Quality of Life of Chronic Kidney Disease Patients Undergoing Haemodialysis

S.N	Dimension	Mean	SD	Reference (<30)
1	Overall quality of life	24.55	4.2	Low
2	Health and functioning	23.84	3.9	Low
3	Socioeconomic factor	24.05	4.8	Low
4	Psychological /spiritual factor	24.43	2.4	Low
5	Family relationship	19.94	2.6	Low

Table 1 depicts that the overall QOL of CKD patients undergoing haemodialysis was poor. All values were <30 showing low QOL. The mean score of QOL was 24.55 ± 4.2 which showed poor QOL. Domain wise it is found that for health and functioning the QOL score was 23.84 ± 3.9; for socioeconomic domain the QOL score was 24.05 ± 4.8; for psychological/spiritual domain the QOL domain was 24.43 ± 2.4 and for family relationship domain the QOL score was 19.94 ± 2.6. The score in all domains were low indicating poor QOL of CKD patient undergoing haemodialysis. QOL of CKD patients were significantly associated with age ($t_{3.94}$), occupation ($t_{3.86}$), and frequency of dialysis ($t_{3.92}$) at $p<0.05$ Table 2.

Table 2: Association of QOL Score with Demographic Characteristics

SN	Demographic characteristics	QOL Frequency %		df	Chi square-table value	Chi square-calculated value
		Good>30	Poor<30			
1	Age in years			1	3.84	3.94*
	<30	1	4			
	30-40	4	26			
	40-50	2	18			
	>50	3	42			
2	Gender			1	3.84	0.63
	Male	10	50			
	Female	5	35			
3	Marital status			1	3.84	3.27
	Married	5	75			
	Unmarried	6	14			

4	Type of family Nuclear Extended	15 5	55 25	1	3.84	0.63
5	Education Secondary Higher secondary Graduate Post graduate	5 2 6 2	35 33 14 3	1	3.84	2.84
6	Residence Urban Rural	20 10	50 20	1	3.84	0.64
7	Occupation Labourer Govt. job Retired	5 10 3	35 20 27	1	3.84	3.86*
8	Frequency of dialysis in a week Once Twice Thrice	15 10 4	45 16 10	1	3.84	3.92*

*significant at p<0.05.

Discussion

The present study revealed overall poor QOL (24.55 ± 4.2) of CKD patients undergoing haemodialysis. In the present study the QOL score was low in all the dimensions i.e. 23.84 ± 3.9 for health & functioning; 24.05 ± 4.8 for socioeconomic domain; 24.43 ± 2.4 for psychological/spiritual domain and for family relationship domain the QOL score was 19.94 ± 2.6. This was supported by various researches worldwide. Joshi U et al (2017) also reported poor QOL in patients receiving haemodialysis. Domain wise also they reported low QOL scores: environmental domain (53.17±15.59), psychological domain (51.23±18.61), social domain (49.86±21.64), and physical domain (45.93±16.90). In the present study the QOL was significantly associated with patient's age ($t_{3.94}$), occupation ($t_{3.86}$) and frequency of dialysis in a week dialysis ($t_{3.92}$) at p<0.05. Joshi U et al (2017) found that older age was associated with a better QOL score in the social domain (*p*=0.005), and employed patients scored better in the environmental domain

(p=0.019). Low income status and increased duration on hemodialysis were found to be the only independent negative predictors of QOL in patients with hemodialysis (p<0.05).

Conclusion

The CKD patients have poor QOL. Health personals should plan strategies to improve the QOL in such patients. Mass awareness should also be created among patients, caring relatives and family members about the ways in which the QOL can be improved. Similarly the health care members should also plan the care to optimize the patient's QOL.

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