Original Article

Assessment of Quality of Life in Chronic Renal Disease Patients Undergoing Hemodialysis at Public Hospital, Lahore

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Abstract:

Quality of life of chronic renal disease patients is affected by several factors, depending on stage of disease, type of treatment and sociodemographic factors **Objective:** To assess the quality of life undergoing hemodialysis patients **Methods:** A cross-sectional study was carried out at Sir Ganga Ram Hospital, Lahore during February to May-2019. Patients suffering from chronic renal disease were included in the study and uncooperative patients were excluded in the study. Total 100 samples of chronic renal disease patients were selected through non-probability convenient sampling technique. Patients were assessed through pre-tested questionnaire. SPSS version 21.0 was used for data analysis **Results:** According to results 39% patients reported that they were suffering from depression, 47% patients of chronic renal disease were unemployed, 28% patients were malnourished and 98% patients were having 3 or more dialysis sessions per week. Also only 26% patients thought that quality of life of older patients is better while 74% considered it poor. Only 77% patients thought that quality of life of middle aged patients is better while 23% patients considered that quality of life of middle aged patients was poor. 42% patients thought that quality of life of young aged patients is better while 58%considered it poor **Conclusions:** Malnutrition, unemployment and hypertension are the factors affecting the quality of life in patients undergoing hemodialysis in this study. The quality of life of middle aged patients was comparatively better.

Key Words:

Assessment, Hemodialysis, Chronic renal disease, Quality of life

Introduction:

Kidney damage for almost more than three months may lead to chronic renal disease. If rate of glomerular filtration is more than 60 mL/min/1.73 m^2 then it will be abnormal only in case if the lab test reports will be abnormal and if the rate is less than this value then it will be confirmed abnormal [1]. As the age increases chances of chronic renal diseases increases that is why older people have more chances of having this disease [2]. 8–16% of the world population is suffering from chronic renal diseases. Diabetes mellitus is the major cause of renal disease other causes include age after 60 years and family history have more chances of having this disease [3]. Prevalence of milder chronic kidney disease is estimated to be 5-7% worldwide which is due to hypertension and diabetes [4]. Feeling lethargic, lack of energy, difficulty in sleeping and itching are the main symptoms of chronic kidney diseases [5]. Other symptoms include abdominal pain and gas, easily damage any part of the body and start bleeding and muscle cramps [6]. Urine is the most common source of laboratory test for the diagnosis of chronic renal disease because it is easily available and easily collected [7]. Phosphorus is harmful for chronic renal disease patients so their diet should be restricted in phosphorus like whole grains, dairy products,

nuts and beans. High protein diet on daily basis from a long period of time may cause negative effects on kidneys [8]. 1.2g/Kg/day is recommended protein intake for hemodialysis patients. For predialysis patients 0.8g/Kg/day is recommended [9] Salt increases the chances of hypertension and weight gain that is why sodium consumption is restricted for renal disease patients [10]. Energy intake for hemodialysis patients should be low as around 22-24 Kcals/Kg body weight [11]. Quality of life of hemodialysis patients is low as compared to other diseases. Unable to achieve required nutrients may cause protein energy malnutrition which in result decrease the quality of life [12]. Treatment related stress may leads to depression which cause poor quality of life. These patients face many psychological issues like anxiety, feeling of hopelessness, trying to suicide [13]. Patients undergoing hemodialysis feeling fatigue and lethargic. Unemployment, living in rural areas, low socio-economic status, distance covered to reach hospital and more time taking in hemodialysis affects the quality of life [14].

A study was conducted by Anees *et al.*, to determine the quality of life in renal disease patients and also examined the factors those have affected their quality of life. They included the patients undergoing hemodialysis for more than 3 months at 3 dialysis centers of Lahore. They selected fifty healthy persons as patients' caregivers. The results from the questionnaire showed that caregivers of hemodialysis patients had better quality of life as compared to patients undergoing hemodialysis, especially diabetic patients face more problems as compared to non-diabetics [15]. Another study was conducted by Resic and Cengic, to assess the depression and quality of life in hemodialysis patients. Questionnaire was designed for 200 patients of age 20-80 years undergoing hemodialysis. Results showed that 51% patients have depression. 11% patients decided to attempt suicide. 18% patients had feelings of guilty. Appetite changed in 35% patients. There were many symptoms that lead to poor quality of life like unemployment, low socio-economic status, and anxiety. Younger patients, that were highly educated and have good jobs had better quality of life as compared to older patients, with less education and have no proper job. Younger patients were less depressed as compared to the older ones. Hemodialysis duration, married life and gender had no effect on quality of life and depression [16]. Another study was by Suzuki and Kimmel, assessed the prevalence of malnutrition and survival rate in patients undergoing hemodialysis. Researchers used the anthropometric measurements to assess malnutrition in patients. These patients were unable to take nutrients that may cause malnutrition which reduced their survival rate. The study showed a direct relationship between psychological issues and nutritional status. Treatment for psychological issues may improve the nutritional status and from this survival rate can be increased [17].

The researcher highlighted the possible factors responsible for substandard quality of life among patients undergoing hemodialysis so that attempt could be made after ruling out the negative factors and all the responsible features to improve the quality of life among suffered patients as decreased quality of life will cause burden on society.

Methods:

A cross-sectional study was carried out at Sir Ganga Ram Hospital, Lahore during 4 months February to May-2019. Total 100 samples of chronic renal disease patients were selected through non-probability convenient sampling techniques. Patients suffering from chronic renal disease were included in the study and uncooperative patients were excluded in the study. Patients were assessed through pre-tested questionnaire. SPSS version 21.0 was used for data analysis and graphs were made using Microsoft excel and tables were made using Microsoft word. Prior informed consent was taken from the participants. Study was conducted after ethical approval from

Institutional Review Board of The University of Lahore.

Results:

39% patients reported that they were suffering from depression, 47% patients of chronic renal disease were unemployed, 28% patients were malnourished and 98% patients were having 3 or more dialysis sessions per week as shown in Figure 1.

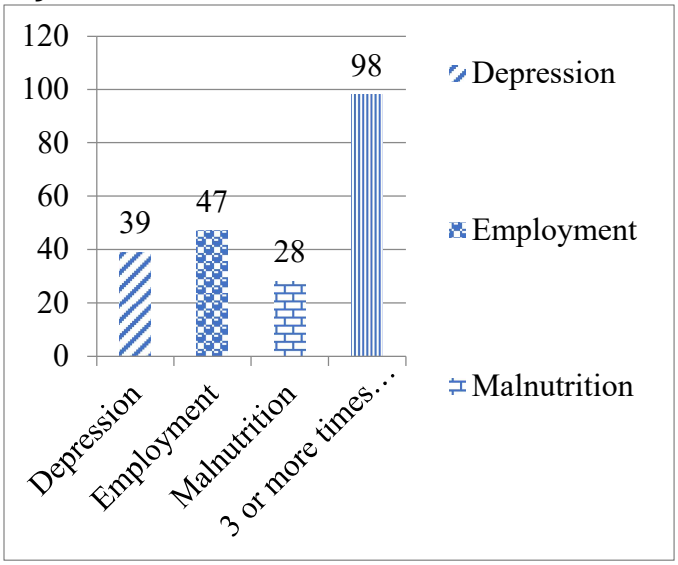

Figure 1: Consequences of hemodialysis

According to Figure 2 only 26% patients thought that quality of life of older patients is better while 74% considered it poor. Only 77% patients thought that quality of life of middle aged patients is better while 23% patients considered that quality of life of middle aged patients was poor.42% patients thought that quality of life of young aged patients is better while 58%considered it poor.

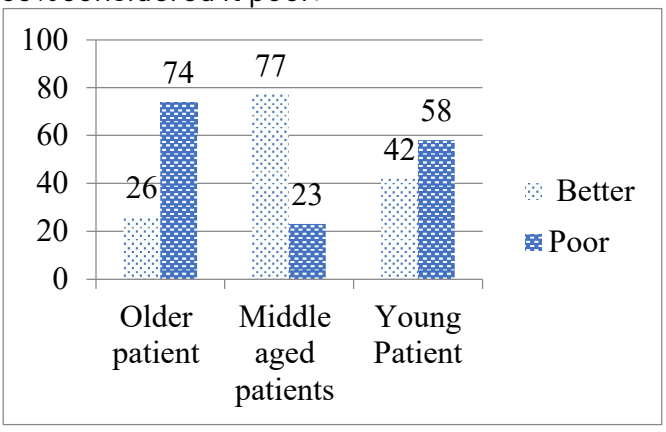

Figure 2: Age related effect on quality of life among patients of hemodialysis

Discussion:

Literature emphasized how the quality of life being affected for patients who undergo dialysis after severe renal disease. It was also observed that dialysis affect the patients not only physically but mentally. Many of the patients lost their will to live anymore which affected their current treatment. The study also highlighted an important aspect that gender and age can also be a determinant to the quality of life. 65% patients were of opinion that it did not have any significant impact while rest of them said it had. 75% revealed that renal disease & the entire treatment journey did impact their social life. Anees M studied 45% of patients facing significant impact on quality of life he mentioned how social circle can improve the mental & physical health of the patients along with spiritual advisor. It was also observed that chronic and severe diseases like cancer and end stage renal disease can have a significant survival value with improved social circle [18]. It was also argued that malnutrition can lead to poor quality of life and 66% agreed to that. *Da Silva-Gane* highlighted the syndrome name malnutrition inflammation complex syndrome is caused in 56% of the patients going through dialysis. There are no conclusive reasons and causes for this to happen but nutrition based on treatment can highly reduce its chances [19]. It was also argued how age can ultimately determine the quality of life and how nutrient can impact their life. 74% of the elder patients were feeling low on quality of life rather than the younger and middle aged patients. One previous paper highlighted that elder patients were potentially at higher risk of nutrient deficiency than any other age group [20]. 39% of the patients observed depression symptoms during treatment. 74% of the total participants were not having apparent psychological problems but 37% did showed significant mood swing at times. Son YJ *et al* highlighted the 43% feel depress and how likely that impact on their quality of life. Patients with end stage renal disease should be assessed on depression scale to manage and prevent the

progression of the disease. The more the prevalent of the disease, the more it impacts the quality of life[21].

Conclusions:

Malnutrition, unemployment and hypertension were the factors that had affected the quality of life in patients of hemodialysis. The quality of life of middle aged patients was better with highest percentage.

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