



HEALTH RELATED QUALITY OF LIFE OF HEMODIALYSIS PATIENTS VISITING THE RENAL DIALYSIS CENTER: A CROSS SECTIONAL STUDY

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ABSTRACT

This prospective descriptive analysis study was done to assess the quality of life of hemodialysis patients visiting the renal dialysis center. A survey was circulated among eligible participants to assess their overall health condition and how impactful is dialysis and overall renal conditions towards their quality of life. A brief version of the kidney disease and Quality of Life (KDQOL™-36) questionnaires was applied to assess the overall health of the patient, kidney health and its impact on his life. More than half (53%) of the participants in the survey have reported a very good to excellent overall health, while their kidney condition has been impacting highly the overall health of majority of them 53%. 59% of the participants reported that their physical and emotional health have interfered a lot with their social activity, 56% said that it's highly interference. 55% who felt frustration from their kidney conditions and 44% who were bothered by their appearance. Renal dialysis or diseases have an impact on the overall patient's quality of life; however, it doesn't reach to the stage of being a bothering factor. This may be due to the advanced techniques in dialysis which makes their life easier for patients with the disease.

**KEYWORDS :** Renal, Dialysis, Diseases, Quality of life, emotional, physical limitations, stressful factors.

INTRODUCTION

Chronic kidney disease (CKD) is the 12th leading cause of death and 17th cause of disability. Kidney diseases are rising global health issue in the kingdom of Saudi Arabia (Farag, Kari and Singh, 2012). According to 2017 data, there is 25.1% increase in chronic kidney diseases in a span of 10 years in the Kingdom. There are currently 20,000 patients on dialysis and 9,810 are waiting for kidney transplantation. There are various factors such as hypertension, diabetes and obesity that contribute to the development of kidney diseases (Kazancioğlu, 2013)

In the Gulf Cooperation Council (GCC) countries which constitute Saudi Arabia, United Arab Emirates, Qatar, Kuwait, Bahrain, and Oman; diabetes and hypertension are considered as the leading primary cause of kidney disease (Hassanien et al., 2012)(Al-Rubeaan et al., 2014).

Poor dietary habits such as consumption of snacks, fatty and non-vegetarian food items, fast foods, soft sugary beverages, use of pain killers and smoking are the potential risk factors for the development of chronic complications like hypertension, diabetes and ultimately kidney diseases.

Furthermore, family history, age, race, and gender are significantly associated with kidney diseases (Ansari, Al-Adeem and Alshakka, 2019). QOL is an overall assessment of a person's well-being, which may include physical, emotional, and social dimensions, as well as stress level, sexual function, and self-perceived health status.

End-stage renal failure is a chronic disease that exerts a great negative impact on patients' health-related QOL mainly due to the accompanied impairment to the imposed limitation in almost all domains of their daily lives. Despite remarkable advances in the treatment of hemodialysis "HD", the patients encounter certain physical, psychological, economic, and social problems which affect their QOL. HD consist of a complex procedure for patients that require frequent hospital or dialysis centres visits, mainly 3 times a week, thus implying

substantial changes in the normal way of patients' living. (Parekh, 2020)

92% of HD patients may endure high symptom burden and may experience troubling symptoms such as fatigue, decreased appetite, trouble concentrating, swelling in their feet and hands, and muscle cramps, and all of which cause daily distress and negatively affects their QOL. (Collinset al., 2013). With this background, we are aiming in our study to assess the QOL among chronic kidney disease patient undergoing hemodialysis, as well as the impact of HD on patient's daily activities.

MATERIALS AND METHODS

A prospective descriptive analysis study design was used for patients in their visit to the renal dialysis center for dialysis through the day. A survey was circulated among eligible participants to assess their overall health condition and how impactful is dialysis and overall renal conditions towards their quality of life. A brief version of the kidney disease and Quality of Life (KDQOL™-36) questionnaires was applied to assess the overall health of the patient, kidney health and its impact on his life. The random sampling technique will be used in selecting the study sample. A total number of 353 hemodialysis patient will serve as the total sample of the study. The inclusion criteria include patient with age 18 years from both gender; and they have history of diabetes and/or hypertension. While the exclusion criteria include patient < 18 years; diagnosed with cancer, pregnant women and if patient diagnosed with immune diseases "HIV and AIDS" patient or with vision and hearing impairment

RESULTS

Table 1: Baseline data of study subjects

Parameter	All patients (n=353)
Age (years), mean [SD]	46.4 (± 12.1)
Body weight (Kg), mean [SD]	105.3 (± 21.9)
Sex, n (%) Female Male	141 (40%) 212 (60%)
Diabetes status, n (%) No Yes	88 (25%) 265 (75%)

Dyslipidaemia, n(%)No	66(18.4%)
Yes	287(81.6%)
Hypertension, n (%)No	43(12.1%)
Yes	310(87.9%)

**a. Overall health status of patients**

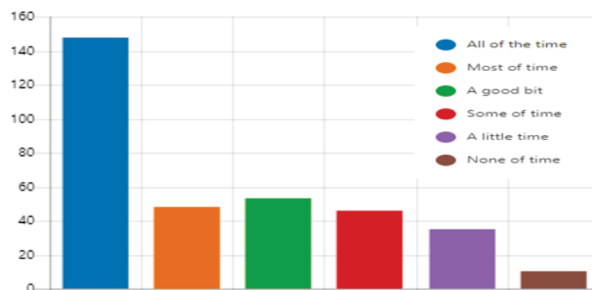
When patients were asked about the status of their overall health, 246 patients, which is equivalent to 72 percent, reported that their overall health is either excellent or very good, while a minority of patients, which is equivalent to 3 percent of the total sample, reported that their overall health is poor.

**b. Impact of kidney's condition on patient's daily activities**

The vast majority of patients, 82 percent, have reported that their overall health in relation to their kidney's condition, particularly while engaging in normal life practises like climbing or taking stairs, was excellent and very good and that it does not overlap with their daily activities. On the other hand, 18 percent of patients reported that their overall health was good, which indicates that there may be an overlap with them.

**c. Impact of kidney's condition on patient's daily psychological parameters**

The feeling of calmness or restfulness has also been addressed in our questionnaires. Patients were asked how often during the past four weeks they have felt calm and peaceful, and 196 patients, or 55.5 percent, responded that they have felt calm and peaceful during the past four weeks, while 3percent responded that they have not.



**Figure 1: Patient's daily psychological parameters**

**d. Impact of kidney's condition on patient's social activities**

Physical health or emotional problems interfered with your social activities have been addressed in the patients outcomes, over the 353 patients who answered the questionnaire, 211 patients "59%" from the total have reported that their physical and emotional status were influenced a lot with their kidney condition, while on the other side 75patient "21%" reported limited or none.

**e. Impact of kidney's condition on patient's life activities**

From among the total of 353 patients. 181 patients, or "56 percent," have indicated that their kidney disorders significantly interfere with their daily lives, while another 181 patients, or "44 percent," have stated that their overall renal functions do not interfere with their living in anyway.

**f. Kidney's condition and patient's feelings**

55 percent of the patients strongly agreed with this statement that their kidney's condition makes them feel annoyed, while only 26 percent claimed that it does not, and 19 percent don't know if it does or not. Frustration is also impacted by the status of the kidneys.

**g. Interference of the kidney's condition with patients' life**

When asked about the effects of kidney disease on their day-to-day lives, the majority of patients (70 percent) responded that the disease does not have an impact on their feelings of worried or stressed, while only 16 percent felt that it was a bothersome sensation. This is because many people have

been led to believe that the symptoms of kidney disease include feelings of stress and worry.

**DISCUSSION**

In conclusion, our results were consistent with several published studies that addressed the clinical, emotional, and social burden of HD in patients with renal diseases, extreme care for this patient is always a need in their journey for better management. Patient's family and surrounding community shall also understand patients' feelings and provide the kind of support for them in order to overcome the challenges they are facing in their daily activities and during dialysis. Several studies have evaluated the impact of HD on patients with end stage renal diseases on the quality of life of the patients, the parameters used to assess the quality of life of the patients varies between physical limitations, emotional, clinical, and social.

In a study by (AlSalmietal.,2021) who aimed to estimate the QOL among HD patients, analyse patients 'QOL on hemodialysis, and identify the characteristics associated with QoL among HD patients in Oman in a cross-sectional format, the outcomes of the study showed that there was a great impact on the physical and overall QOL for patients doing dialysis in comparison to healthy human. At the end of the study, he has shown that as in previous studies, there is a poor QoL among dialysis patients; consequently, further enhancement of renal rehabilitation in dialysis patients is recommended to improve patients' QOL

**REFERENCES**

1. Al-Rubeaan, K., Youssef, A.M., Subhani, S.N., Ahmad, N.A., Al-Sharqawi, A.H., Al-Mutlaq, H.M., David, S.K. and AlNageb, D. (2014). Diabetic Nephropathy and Its RiskFactors in a Society with a Type 2 Diabetes Epidemic: A Saudi National Diabetes Registry-BasedStudy. *PLoS ONE*, [online]9(2), p.e88956. doi:10.1371/journal.pone.0088956.
2. Ansari, M., Al-Adeem, M. and Alshakka, M. (2019). Comorbidity among Patients withKidney Diseases in Hail Region, Saudi Arabia. *International Journal of Diabetes andClinicalResearch*, 6(1).doi:10.23937/2377-3634/1410104.
3. Collins, A.J., Foley, R.N., Herzog, C., Chavers, B., Gilbertson, D., Herzog, C., Ishani, A., Johansen, K., Kasiske, B., Kutner, N., Liu, J., St Peter, W., Ding, S., Guo, H., Kats, A., Lamb, K., Li, S., Li, S., Roberts, T. and Skeans, M. (2013). US Renal Data System 2012Annual Data Report. *American Journal of Kidney Diseases: The Official Journal of theNational Kidney Foundation*, [online] 61(1 Suppl 1), pp.A7, e1-476. doi:10.1053/j.ajkd.2012.11.031.
4. Farag, Y.M.K., Kari, J.A. and Singh, A.K. (2012). Chronic Kidney Disease in the ArabWorld:ACallforAction. *Nephron*, 121(3-4), pp. c120-c123. doi:10.1159/000345149.
5. Hassamien, A.A., Al-Shaikh, F., Vamos, E.P., Yadegarfar, G. and Majeed, A. (2012). Epidemiology of end-stage renal disease in the countries of the Gulf Cooperation Council: asystematic review. *JRSM Short Reports*, [online] 3(6), pp.1-21. doi:10.1258/shorts.2012.011150.
6. Ishiwatari, A., Yamamoto, S., Fukuma, S., Hasegawa, T., Wakai, S. and Nangaku, M. (2020). Changes in Quality of Life in Older Hemodialysis Patients: A Cohort Study on DialysisOutcomes and Practice Patterns. *American Journal of Nephrology*, [online] 51(8), pp.650-658. doi:10.1159/000509309.