Quality of life among CKD patients undergoing Hemodialysis in Kolkata

Abstract:

Introduction: Renal failure is the inability to maintain kidney function properly. Which leads chronic kidney disease (CKD) and end stage CKD needs maintenance hemodialysis. Various studies show that CKD patients undergone hemodialysis suffered disturbed Quality of Life (QOL) due to maintenance hemodialysis.

Objectives: Objective of the study was to assess QOL of CKD patients undergoing hemodialysis and to find association between QOL with demographic variables.

Methodology: Survey approach with descriptive research design was for this study. Structured knowledge questionnaire and demographic variables was used as a tool for data collection. Sixty samples were selected by random sampling. Data was collected from 28/04/2017 and 29/04/2017 from the dialysis department of Woodlands Multispecialty Hospital Ltd.

Results: The study results highlights that CKD patients suffered disturbed QOL in all dimension of health i.e Physical health 72.33%, Psychological health 54.04%,Intellectual health 43.05%, Social health 41.48%,Spiritual health 26.66% Study findings also highlights that there was no association between demographic variables and QOif CKD patients Undergoing hemodialysis except age.

Conclusion: The study findings concluded that QOL among CKD patients undergoing HD is disturbed in all dimension of health.

Key Words: Quality of Life (QOL); Chronic Kidney Disease (CKD); Hemodialysis; Kolkata; West Bengal.

Introduction

Chronic kidney disease, also known as chronic renal disease, is progressive loss of kidney function over a period of months to years. Stage V CKD is often called end-stage kidney disease which needs maintenance hemodialysis but chronic kidney disease along with maintenance hemodialysis causing high level of disability which disturb quality of life in different domain (i.e. physical, social, spiritual, psychological and intellectual).

A non-experimental research study was done by Staboroula Gerogialli, Eriai Graps in the year 2014 among the 100 patients undergoing hemodialysis in 4 hospitals in Athens. Data was collected by structured questionnaire KDQOL-SF 36. The result shows that the rate of feeling lack of rest (43.8%), lack of joy(41.1%), feeling tired(41.8%) and irritability( 37.5%). The main stressor for these patients was the disease itself(41.7%), dietary restrictions(25%), restriction of fluid intake (32.7%), decreased ability to travel (29.5%), anxiety and sleep disorder (68.1%),sexual life (59.8%).
End-stage renal disease exerts a great negative impact on patient’s health related quality of life mainly due to limitation in almost all domains of their daily lives.

A descriptive study was done by Kawa Tel on June, 2011 in Erciyes university, Turki, among 138 patients receiving dialysis for determining the quality of life and sleep. The method in this study was questionnaire. The estimated result in this study is patient age 51 years and older had low QOL and sleep for 46.18±5.22.

Due to cost control in India, patient often request for reduction in frequency of dialysis session, use of less expensive dialyzer, not treating effectively with erythropoietin therapy which leads to disturb quality of life in all domain (physical, social, spiritual, psychological and intellectual).

A descriptive research study was conducted by M.Rai, J.Rustagi, S.Raustagi in the year 2017 among 69 patients on maintenance haemodialysis for more than 3 months in New Delhi. The result shows there was high prevalence of depression (47.8%), insomnia (60.9%), increased risk of sleep apnea (24.6%). Depression was significantly more in patients with low monthly income (p=0.03), those on dialysis for more than 1 year (p=0.001) and the unemployed (p=0.009). High risk patients for sleep apnea tended to be males with lower monthly income (p=0.02). Insomnia was significantly higher in patients who were on dialysis for more than 1 year (p=0.003).

On the basis of the above studies the recent study was conducted to assess the quality of life among CKD patients undergoing hemodialysis and also to find the association between quality of life of CKD patients undergoing hemodialysis with selected demographic variables

**Methodology**

Survey approach with descriptive research design was for this study. Structured knowledge questionnaire (KDQOL SF-36) and demographic proforma were used as a tool for data collection.

Sixty samples who were in MHD (Maintenance Hemodialysis) were selected by random sampling. Data was collected from 28/04/2017 and 29/04/2017 form the dialysis department of Woodlands Multispeciality Hospital Ltd.

**Result**

![Fig 1: Bar Diagram QOL Based on Dimension of Health](image)

Data presented in fig 1 shows that the score for physical health was 72.33%, social 41.48%, Psychological 54.04%, spiritual 26.66%, intellectual 43.05%. So, the maximum score obtained was 72.33%of physical health and the minimum score obtained was 26.66% of spiritual health.

**Table 1: Association between QOL & demographic variables n = 60**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Below Median (&lt;26)</th>
<th>Above Median (≥ 26)</th>
<th>df</th>
<th>Chi-square</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 31-40</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>9.2</td>
<td>Significant</td>
</tr>
<tr>
<td>b. 41-50</td>
<td>2</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. 51-60</td>
<td>13</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. 61-70</td>
<td>13</td>
<td>14</td>
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</table>

Table 1 shows that chi-square test computed between the QOL with demographic variables was significant at 0.05 level of significances for age in years only. QOL was found not associated with other variables like gender, education, employment status, religion, marital status, no. of family members, monthly income, family type, years of suffering, dialysis/week.
Discussion

Demographic data of the present study showed that the majority of the people are under the age group of 61-70 years (44.9%) who are graduate (61.6%) and unemployed (29.9%) and 65% of the sample are having per month income more than Rs 4000.

The findings of the study are consistent with the study conducted in development of nephrology, Puducherry among the patients with CKD stage 3-5, among 60 selected sample, for assessing the health related QOL. The mean result of the study is patients facing problems regarding physical functioning 0.12%, emotion 0.28%, sleep 0.7%, work status 0.05%, and pain 0.10%. The present study shows that physical health as a dimension of health is affected and hampers the quality of life. 72.33% of the entire physical health is hampered in the present study.

A descriptive study was done by John Finnegan and Thomas VJ in the year 2012, 11th June in Great Maza Pond, London among 74 patients undergoing hemodialysis with ESRD for determining the psychosocial experience of patient and its impact on QOL. According to the study findings 50% patients had experienced psychosocial disturbances in attending social gatherings. The present finding in the study shows that 54.04 % psychosocially affect the QOL of life among the selected sample.

Conclusion

The study findings concluded that QOL among CKD patients undergoing HD is disturbed in all dimension of health.

Recommendation

The similar study can be carried out in larger sample. Comparative study can be done on similar topic among male and female.

Acknowledgement

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