

Assessment of Level of Stress and Anxiety among Patients Suffering from CKD in a Tertiary Care Hospital

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Abstract: *Background:* CKD is a global health burden with a high economic cost of health system. According to the 2010 Global Burden of Disease study, CKD was ranked 18th in the list of causes of total number of deaths worldwide and it was estimated that 40 million adults suffering from CKD also suffer from anxiety and stress disorders. *Method:* A descriptive study was undertaken to assess the level of stress and anxiety among patients suffering from CKD. Total 50 patients between age group of 20-80yrs suffering from CKD and undergoing haemodialysis or peritoneal dialysis were selected from a tertiary care hospital by non-probability convenient sampling technique. Structured questionnaire including socio demographic data, GHQ-12 and BAI to assess level of stress and anxiety respectively was administered individually to the study subjects. *Result:* Among 50 respondents 34% of the patients had evidence of distress & 46% had severe problem and psychological stress. On the other hand, 46% of the patients had moderate anxiety & potential cause of concern was present in 26%. It was also found that majority 11 in the age group of 41-60 yrs had severe problem and psychological stress. Also among 61-80yrs, 9 respondents had severe problem and psychological stress and same number of respondents in the age group of 41-60 yrs suffered from anxiety which had potential cause of concern. 09 respondents with duration of illness 1-3 yrs had severe problem and psychological stress. Respondents with duration of illness between 1-3yrs suffered more from severe anxiety as potential cause of concern. 50% (4) of respondents undergoing peritoneal dialysis had evidence of distress, and 47.6%(20) respondents on hemodialysis exhibit severe problem and psychological stress. 25% (3) respondents on peritoneal dialysis had anxiety of potential cause of concern. 21.42% (9) respondents on hemodialysis suffered anxiety which is of potential cause of concern.

Keywords: Anxiety, Stress, Peritoneal dialysis, Haemodialysis, General Health Questionnaire-12(GHQ-12), Beck Anxiety Inventory (BAI) and Betty Neuman System Model.

1. Introduction

Chronic kidney disease is considered a public health problem worldwide because of its predominance, evolution and financial cost. It is defined by kidney tissue injury (with or without a decrease in glomerular filtration rate) and/or a decrease in kidney function over a period of three or more months.³

When the glomerular filtration rate is below 15/ml/min/1.73m², it leads to an irreversible loss of renal function that develops due to multifactorial etiology over a period of a few years. Loss of renal function happens progressively leading to loss of excretory, metabolic and endocrine functions. Initially it starts as a biochemical abnormality and can be detected through routine laboratory measurements, progressing towards terminal stage End Stage Renal Disease (ESRD), requiring renal replacement therapy, dialysis or transplant as alternative treatments. Such chronicity of the disease put the patient at the risk of developing disturbances not only at physical level but also to a greater extent at mental and psychological level giving rise to unavoidable stress, anxiety further leading to depression.⁶

2. Materials and Methods

The study was descriptive in design. A total of 50 patients (males & females) between age group of 20-80yrs suffering from CKD on haemodialysis & peritoneal dialysis attending OPD & admitted in medical wards of the tertiary care hospital

were selected by non-probability convenient sampling technique. Data was collected by using semi structured questionnaire to assess socio-demographic data and GHQ-12 and BAI was administered to assess stress and anxiety among subjects respectively.

3. Results

3.1 Socio-demographic profile of the sample

The study revealed that out of 50 respondents, majority 25(50%) belonged to the age group of 40-60 yrs and minimum respondents 12(24%) were present in the age group 20-40 yrs. 30(60%) were males while 20(40%) were females. Majority 49(98%) in the group were married and 1(2%) were unmarried. Most of the respondents were found to be unemployed 30(60%), 14(28%) were employed privately, 4(8%) were employed privately while only 2(4%) were retired. 21(42%) were following mixed vegetarian diet and only 3(6%) were egg vegetarian. It was also observed that 21(42%) were intermediate and 3(6%) were middle school passed. maximum 31 (62%) had income more than ₹30000, 10 (20%) had income ranging between ₹20000-30000, 5 (10%) had monthly income between ₹5000-10000, 5(10%) had monthly income between 5000-10000, minimum 4(8%) had monthly income ranging between ₹10000-20000.

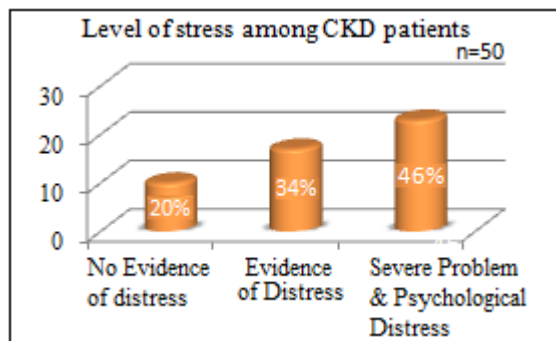
Maximum 40% were suffering from CKD for >3years, 38% were having disease for 1-3years and minimum 22% were suffering from CKD for <1year. Most of them 31 (62%) were

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looked after by spouse, 15 (30%) were taken care by their children and 03 (6%) by other family members and 01 (2%) were looked after by their parents. Maximum 42 (84%) respondents had no family history of CKD while only 08 (16%) gave family history of CKD. Most of the respondents 42 (84%) were undergoing hemodialysis, 07 (14%) were undergoing CAPD and minimum 01 (02%) were undergoing peritoneal dialysis. Maximum 26(52%) undergo dialysis twice a week, 22(44%) undergo dialysis thrice a week and minimum 2(4%) undergo dialysis more than thrice a week. Most of them 26 (52%) were suffering from hypertension, 14 (28%) were having both the diseases, equally 05 (10%) were suffering from diabetes and none of the above mentioned diseases.

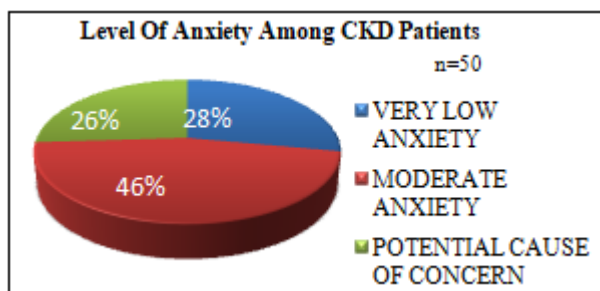


3.2 Level of stress among patients suffering from CKD

Maximum 23 (46%) have severe problem and psychological distress, 17 (34%) have evidence of distress and minimum 10 (20%) do not have any evidence of distress.

3.3 Level of anxiety among patients suffering from CKD

14(28%) have very low anxiety, 23(46%) have moderate anxiety and 13(26%) have anxiety which is potential cause of concern.



3.4 Level of stress and anxiety as per age group

Majority 11 in the age group of 41-60 years had severe problem and psychological stress and 9 in the same age group had evidence of distress. Also among 61-80years, 9 respondents had severe problem and psychological stress. 09 respondents in the age group of 41-60 years suffered from anxiety which had potential cause of concern, 08 respondents among 61-70 years also had moderate anxiety.

3.5 Level of stress and anxiety as per duration of illness

09 respondents with duration of illness 1-3 years had severe problem and psychological stress, whereas 10 respondents

with duration >3 years and 7 with duration 1-3 years had evidence of distress. Respondents with duration of illness between 1-3year suffer more from severe anxiety as a potential cause of concern, whereas 08 had potential cause of concern among respondents with >3 year duration of illness and only 5 with duration of < 1 year. 08 respondents with 1-3 year duration of illness had moderate anxiety.

3.6 Level of stress and anxiety as per type of dialysis

50% of respondents undergoing peritoneal dialysis had evidence of distress and 47.6%(20) respondents on hemodialysis exhibit severe problem and psychological stress. Only 19.07% (8) on haemodialysis and 25%(2) on peritoneal dialysis had no evidence of stress.

The results were congruent to similar study done by Uday Kumar TR Amalraj A (2013) to assess the stress and coping abilities among 50 patients undergoing chronic hemodialysis and peritoneal dialysis using t-test at Chennai, India which showed that 78.3% respondents undergoing hemodialysis and 43.3% respondents undergoing peritoneal dialysis were suffering from stress.

Assessment of anxiety with BAI revealed that 62.5% respondents on peritoneal dialysis had moderate anxiety and 25% had potential cause of concern whereas 21.42% respondents undergoing hemodialysis suffered anxiety which is a potential cause of concern and 47.61% had moderate anxiety.

The result was congruent with the study conducted in Ponta Grossa with CKD patients, using Beck Anxiety Inventory (BAI) and the Hospital Anxiety and Depression Scale (HADS) with 155 patients of which 128 were in the HD group and 27 in PD. The result showed that 25.7% patients undergoing hemodialysis had anxiety as per BAI scale whereas only 11.7% suffered anxiety by HADS. Also among patients undergoing peritoneal dialysis only 11.7% found to have anxiety using BAI and nil as per HADS.

4. Conclusion

Stress and anxiety refers to an environment, social, or internal demand that results in a psychological, physiological or behavioural response. These factors can lead to a state of physiological or emotional arousal that can affect physical and psychological health. During the progression of the disease, the patient experiences symptoms like lack of energy, muscle cramping, dry skin and bone pain.

Anxiety and stress are factors that have been identified as one of the major factors for the further progression of this disease. CKD patients are subjected to reduced quality of life compared to the general population and a high prevalence of mood disorders. During our interaction with the patients suffering from CKD undergoing hemodialysis or peritoneal dialysis in the medical surgical wards, we came across the verbalization by the patients about their stress and anxiety related to their inability to fulfil their social roles and responsibilities as well as uncertainty possessed by the disease condition.

It was assumed by the research group that CKD patient undergoing dialysis face some level of anxiety and stress. The analysis of the study revealed that the assumption was correct as 36% out of 50 respondents had moderate amount of anxiety while 46% had severe psychological distress.

The concept of extended and expanded role of the nurses offers many opportunities for a nurse taking care of patients with chronic renal failure patients. Nurses should be oriented about the various aspects of stressful areas and help the patients to cope with the chronic renal failure. The nursing students should be encouraged to learn on how to assess the stress and anxiety level among chronic renal failure patients and ways of assessing the coping strategies. The nurse educators can prepare a standard protocol to assess the coping and should encourage the students to follow them. Nurse researcher should come forward to develop and validate new strategies and protocols in caring the chronic renal failure patients. There is a lot of scope for nurses to conduct research in this area to find the effectiveness of various teaching strategies to improve the knowledge of nurses regarding management of patients with stress and anxiety. Although attention to the medical aspects is certainly vital, it is not the only care CKD patients should receive in order to provide quality care. Furthermore, subsequent monitoring is required when chronic dialysis is established so that timely interventions can be undertaken to prevent a cascade of additional adverse events.

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