Assess the Knowledge Regarding Renal Diet among Renal Failure Patient at Bishop Benziger Hospital with a View to Develop Instructional Module

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Abstract: *Introduction: In both developed and developing countries there is a spike in the number of patients with end stage renal disease (ESRD), which in turn greatly expands the need for chronic dialysis and renal transplantation. In the year 2000, approximately 2, 05, 000 and 2, 40, 000 patients with ESRD were maintained on chronic dialysis in Japan and in the United states, respectively, each accounting for roughly 20 and 24% of the estimated world chronic dialysis patients. Although some dialysis patients live longer than 5 to 10 years and are able to work and contribute to the society in which they live, others fare poorly and die within 2 to 3 years. Many times dialysis patients die due to lack of knowledge and practice in their dietary regulations along with other factors. Materials and Methods: Research approach and design: Descriptive research design. Sampling technique: Purposive sampling technique. Samples: Sample consisted of 50 renal failure patients who met the inclusion criteria for the study. Tools: Demographic Proforma and Structured Knowledge questionnaire was used to assess the knowledge regarding renal diet among renal failure patients at Bishop Benziger Hospital, Kollam. Results: The data were analyzed using both descriptive and inferential statistics on the basis of the assumptions of the study. The result showed that the 60% of sample had poor knowledge regarding renal diet and 40% of sample had average knowledge regarding renal diet. An instructional module was prepared by the researcher regarding renal diet and it was given to the participants. Conclusion: An instructional module was prepared by the researcher regarding renal diet and it was given to the participants.*

Keywords: Renal Diet, Renal Failure, Instructional Module

1. Introduction

The primary management of renal failure is dietary management and lifestyle changes and secondary line of management is dialysis. In hemodialysis, blood is pumped in to the dialysis machine to remove the excess water and nitrogenous waste products from our body. In India only 10 - 15% patients receive proper treatment for CKD. Out of it only 6000 undergo renal transplantation. Rest 60000 undergoes hemodialysis and 6000 undergo peritoneal dialysis in a year. W. H. O. states that 10% of the population worldwide is affected by CKD. It was highlighted that Asian countries like India and China have increasing in incidence of Kidney failure cases every year. Over 2 million people worldwide currently receive treatment with dialysis or a kidney transplant to stay alive. There is no cure for chronic kidney disease, but treatment can slow or halt the progression of the disease and can prevent development of other serious complications. In various parts of the world, chronic renal disease is a major health issue.

2. Materials and Methods

The research design adopted for this study was descriptive research design. The present study was conducted in Bishop Benziger Hospital Kollam, the sample consisted of 50 renal failure patients who met the inclusion criteria for the study. Purposive sampling technique was used in this study. The data analysis was done under following headings:

Section A: Demographic Proforma: It consists of demographic and clinical profile of patients such as age, gender, education, occupation, residence, family history, duration of illness and source of information.

Section B: knowledge questionnaire: Knowledge questionnaire to assess the knowledge regarding renal diet among renal failure patient. Prior to data collection a formal written permission was obtained from the head of the institutions. The purpose of the study was explained to the samples. Written consent was taken from the participants

and assessed the knowledge level of renal diet. The data collection was terminated by thanking the participants for their cooperation and provide information booklet for them. The data collected was then compiled for analysis.

3. Results

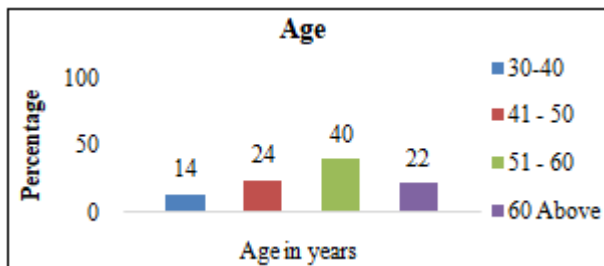**Frequency and percentage distribution of demographic data N=50**

Figure 1: Frequency and percentage distribution of samples according to the age N=50
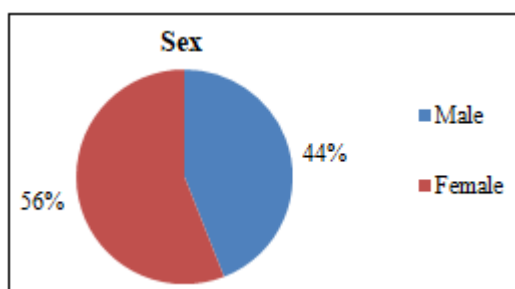

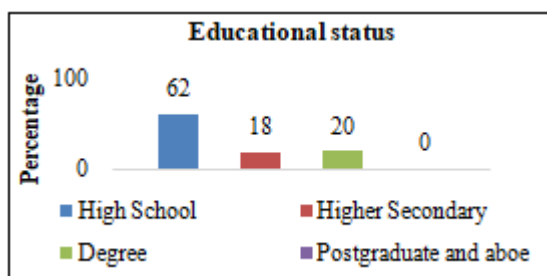**Figure 2:** Frequency and percentage distribution of samples according to the sex N=50

Figure 3: Frequency and percentage distribution of samples according to the educational status N=50
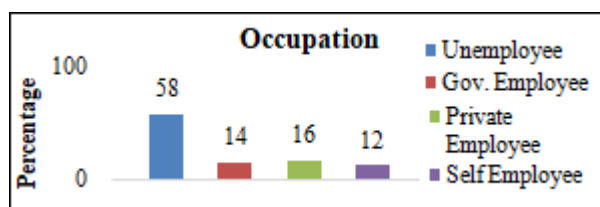

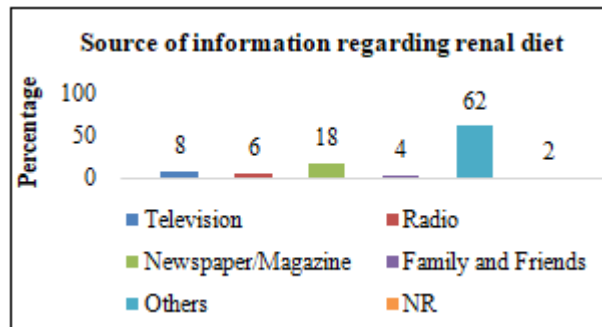**Figure 4:** Frequency and percentage distribution of samples according to the occupation N=50

Figure 5: Frequency and percentage distribution of samples according to the source of information N=50
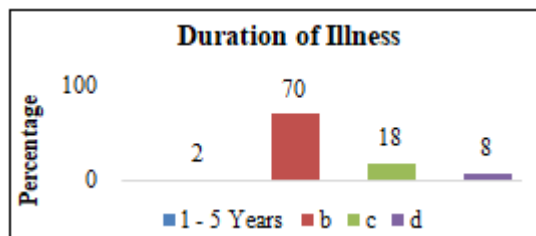

Figure 6: Frequency and percentage distribution of samples according to the duration of illness N=50

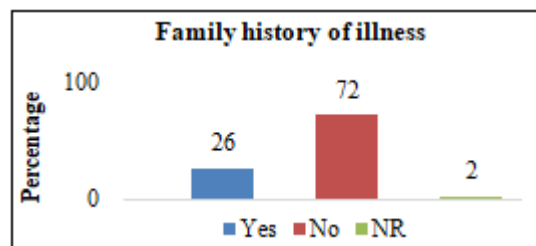**Figure 7:** Frequency and percentage distribution of samples according to the family history of illness N=50
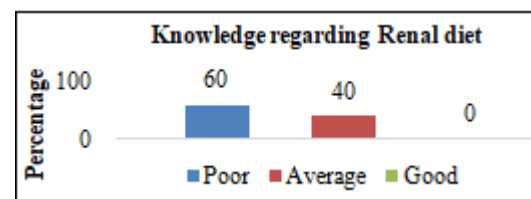

Figure 8: Frequency and percentage distribution of samples according to the knowledge regarding renal diet

Table 1: Frequency and percentage distribution of knowledge score N=50

Level of knowledge	Knowledge scores
Poor (0 - 6)	60
Average (7 - 15)	40
Good (16 - 20)	0

Table 2: Chi - square value showing association between pretest knowledge regarding renal diet and the selected demographic variables, N=50

Variables	Level of Knowledge		chi-square	df	P
	Poor	Average			
Age					
30 - 40	6	1			
41 - 50	8	4	3.3288	3	0.343
51 - 60	11	9			
60 above 5 6	5	6			
Gender					
Male	12	10	0.487	1	0.485
Female	18	10			
Education					
High school	21	10			
Higher secondary	5	4	2.514	2	0.284
Degree	4	6			
Post graduate & above	18	11			
Occupation					
Unemployed	3	4			
Government employee	5	3	1.04	3	0.7913
Private employee	4	2			
Self employee	20	15			
Place of residence					
Urban	8	5	1.465	2	0.48
Rural	2	0			
Source of information					
Television	1	3			
Radio	2	1			
Newspaper/ Magazine	5	4	5.322	5	0.377
Family and friends	1	1			
Others	22	9			
Duration of illness					
1 - 3 years	1	0			
4 - 6 years	25	10	13.409**	4	0.0094
7 - 9 years	1	8			
10 and above	3	1			
Family history of illness					
Yes	9	4	2.003	2	0.367
No	21	15			

** Significant at 0.05 level

There is p value <0.05 the test is significant in duration of illness. So there is association between duration of illness and knowledge. There is no significant association between knowledge scores and other demographic variables.

4. Discussion

In a study conducted on "Knowledge of disease and dietary compliance in patients with end stage renal disease", the result predicted that dialysis patients who knew more about kidney disease and its treatment would be more compliant than those who knew less about these matters, and they found that no relationship between compliance and emotional well - being. In the present study knowledge regarding renal diet was assessed and the result indicated that majority of the patients had poor knowledge 60% and 40% had average knowledge. In another study conducted on "Non - compliance to diet and fluid restrictions in hemodialysis patients" serial measurement of serum potassium and inter dialytic weight gain (IWG) in "50" hemodialysis patients was done in a period of one month. The result of this study was non - compliance to diet and fluid regimes were more in older age (81%) in less education 75% than other groups. In the present study 22% of sample belonged to the age group of above 60 years. A case - control study demonstrated that a very low protein diet (VLPD) containing a high quantity of fruit and vegetables and with a very low amount of protein, supplemented with essential amino acids and ketoanalogs of non - essential amino acids considerably reduced net endogenous acid production (NEAP) by 53% after six months ($p < 0.0001$) and 67% after 12 months ($p < 0.0001$) and potential renal acid load (PRAL) by 120% after six months ($p < 0.0001$) and 138% after 12 months ($p < 0.0001$). The results of this small prospective, before–after pilot feeding pilot study suggest that such a diet is beneficial and safe for adults with hypertension and moderate CKD. In the present study the knowledge levels regarding renal diet was assessed and was found to be inadequate for the renal patients, so we gave an information booklet for their better knowledge.

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