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### Comparative assessment of diet pattern of counseled and non-counseled patients of chronic renal failure respondents at different follow-up

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#### Abstract

Dietary and nutritional counselling is sometime considered beneficial for the therapeutic purpose. Keeping the importance of nutritional intervention aspect, it had been planned to throw light in this direction by providing suitable guidelines for CRF patients counselled. Having knowledge of any disease and their causes, dietary precautions, as well as treatment is a very important aspect to fight against diseases. 209 chronic renal failure patients were selected for the study, out of which 105 patients were nutritionally counselled and 104 were not nutritionally counselled. To collect the data questionnaire cum schedule method were used.

**Keywords:** diet pattern, chronic renal failure, ACE inhibition

#### Introduction

As it is known that CRF is a very serious worldwide health problem and dietary management play a very effective role in disease management of CRF patients conditions. The major role of dietary management in chronic renal failure patient should limit the intake of protein in their daily diet because excessive protein will increase the burden of kidney, leading to the aggravation of chronic renal failure and phosphorus diet should be restricted. Goraya *et al.*, (2012)<sup>[2]</sup> shows that simple dietary changes in subjects with chronic kidney disease, in favour of fruits and vegetables, may help reduce kidney injury. The study concluded that a reduction in dietary acid aided by fruits and vegetables may be an effective adjunct to ACE inhibition and blood pressure reduction in patients with hypertension and potentially other nephropathies. Accepting the importance of nutrients of food substances, in the present study an attempt has been made to analyze the intake of various nutrients on the basis of 24 hours recall method and its linkages with different socioeconomic, demographic and anthropometric measurements as well as recommended or advised diet ICMR pattern of the respondents. Nutrition is very essential part in our daily life and it is directly correlated with diet, health and diseases. The dietary principle for the CRF patients is low protein, low fat, low sodium, low phosphorus and low potassium diet always plays an important role in recovery from CRF. In chronic renal failure cases there are some dietary restrictions and modification necessary for their treatment.

#### Objectives of the study

To assess the comparative diet pattern of counseled and non-counseled patients.

#### Material and Methods

The study was conducted at nephrology unit, Institute of Medical sciences, Banaras Hindu University Varanasi. 209 chronic renal failure patients were selected for the study, out of which 105 patients were nutritionally counselled and 104 were not nutritionally counselled. To collect the data questionnaire cum schedule method were used.

The main aim of this study is to describe and discuss the various material and methods which were used to obtain valuable data. It also describes the research procedure, techniques and tools for collection of accurate data which were directly related to aims and objectives of the study and is given under the following headings: Selection of the study

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- Period of the study
- Procedure of sampling
- Variables of the study
- Tools and techniques of data collection
- Validity and reliability,
- Statistical

This study was based on nutritional evaluation of dietary pattern and knowledge assessment in patients suffering from chronic renal failure. The evaluation approach to research is influenced by much greater control over the research the research environment and in this case some variables are

adjusted to observe their effect on other variables.

**Tools and procedure of data collection**

- Interview cum schedule methods was used
- Observation method was used

**Methods used for statistical analysis**

Statistical tools used:

1. Frequency and Percentage
2. Mean and Standard Deviation (S.D)
3. Chi-Square Test
4. 't' Test (Test of Significance)

**Result and Discussion**

**Table 1:** Data collection

Variables	Respondents		Value of	
	Counseled(n=105)	Non- Counseled(n=104)		
	Follow-up-II (n=85)	Initial	t	p
	Mean ± SD	Mean ± SD		
Calories	1831.90 ± 112.55	1787.00± 359.68	1.11	>0.05
Carbohydrate	305.88± 36.44	323.48± 76.82	2.03	<0.05
Fat	38.41± 4.21	38.29±7.69	0.12	>0.05
Protein	24.51± 3.07	32.46 ± 6.64	10.18	<0.001
HB	10.07±8.62	9.64± 0.75	4.16	<0.001
blood sugar	108.03±17.84	106.54±40.75	0.32	>0.05
blood urea	45.33±16.01	51.08±18.76	2.24	<0.05
Serum creatinine	2.20± 0.70	3.37±1.13	8.30	<0.001
Sodium	129.03± 7.38	134.17±6.52	5.08	<0.001
potassium	3.34±0.53	3.90±0.80	5.56	<0.001

The above table shows the nutritional difference between counselled and non counselled respondents. The mean of carbohydrate intake of counselled respondents was slightly reduced 323.48±76.82, 305.88±36.44 in comparison of non counselled respondents. The major difference was seen in protein intake was reduced 24.51±3.07 in comparison of non counselled respondents and it was statistically significant at *p* < 0.001 level. The valuable difference was in haemoglobin and blood urea that in complete respondents 10.07±8.62, 45.33%16.01 in comparison of non counselled respondents which was 9.64%0.75 and 51.08±18.76 respectively statistical this difference was significant at *p* < 0.05 level. The valuable difference was also seen in serum creatinine. Sodium and potassium of counselled respondents which was 2.20±0.70, 129.03±7.38 and 3.34±0.53 in comparison of counselled respondents 3.37±1.13 1.34±0.53 in comparison of counselled respondents 3.37±1.13 1.34±6.52 and 3.40±0.00 respectively. Significant difference was statistically at *p* < 0.001 level.

**Summary and Conclusion**

It was found that nutrition counseling affects the health status of patients by significantly reducing or increasing different type of nutrients by restricting or gaining various food items during illness which may be beneficial for recovery from the disease along with drug.

Thus CRF patients need to be monitored at every stage and nutritional counseling can be very beneficial to them.

**Recommendations**

1. Looking at the increasing trend of chronic renal failure disease all over the world, People need to be educated about the importance to reduce/prevent CRF.
2. This message should be disseminated in the general population. The government should take initiative to launch a wide population based educational campaign for the management of disease.

3. Patient should be encouraged to make them aware about dietary patterns so that they can be able to adopt various protocol treatments.
4. Trend renal nutrition specialists are needed and should be involved in the education and the monitoring of nutritional status for these patients.
5. This study may be used for hospital based educational campaign on large scale involving booklets, poster and multimedia.

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