

Nutrition is an integral part of treatment in haemodialysis (HD) patients with chronic kidney disease (CKD). Proper nutrition helps to maintenance of muscle strength and helps maintain serum albumin. A calorie, protein dense and adequate carbohydrate rich diet to a dialysis patient is very important to maintain health status. A calorie deficit diet lead to poor muscle strength and poor iron store in the body. Even for diabetic who had renal failure and on dialysis, restricting dietary carbohydrates in those patients may not be beneficial .However ,other restriction like calcium, phosphorus , sodium ,potassium may be seems to necessary but its also in contradiction. Some studies reported that liberal phosphorus restriction or no phosphorus restriction showed 27 % and 29% of survival rate (lynch et.al,2011) .Fat is also a nutrient that needed to focus on .Intake of unsaturated fatty acid not only provide calorie but also increases the absorption of fat soluble vitamins. A study done on supplementation of unsaturated fatty acids showed not only increased in weight but also decreased in C reactive protein(Ewers et.al,2009). Other most important mineral that can't deny to look into is potassium. Potassium helps to maintain cardiac output and also maintains acid base balance and kidney helps to regulate potassium level in our body. Hence , studies reported that both hypokalemia and hyperkalemia are dangerous .After all ,a well planned diet is essential to prevent deleterious of effect of dialysis with poor nutrition and to promote better quality of life with less complications .But a well plan diet might not be effective for all, if personnel preference is not taken into consideration or just an overall diet is planned without any customization of clinical values.Through appropriate nutrition/ diet counseling ,barrier of individual prospectus can achieved and may help to reverse the wasting syndrome in CKD patients on dialysis by giving a relaxation or give broad dietary choices. A study done in Andhra Pradesh showed that there was decreased malnutrition from based line 95.3 %to 91% for over all study and for experimental group malnutrition status decreased from 97.2% to 89% within six month on providing appropriate nutritional counseling by renal dietician where as in controlled group malnutrition remained same(Vijaya et.al 2019). Therefore , to validate concept present study opted with aim to assess the impact of systematic diet counseling on CKD stage V patients.

The study is to improve dialysis patient's dietary habit for their better out come and to increase patient's satisfaction by educating them along with their attendant about the diseases and diet management with systematic counselings.

AIM:

Increasing the patient's satisfaction and improving the patient's nutritional status for better outcome.

Objectives:

- Assessment of the nutritional status and feed back of dialysis patients pre and post counseling to check the patient satisfaction and physical condition.
- Collection of the biochemical parameters of dialysis patient's pre and post counseling to check clinical condition.
- Assess the Impact of different type of diet counseling on dialysis patient's bio chemical reports, frequency of requirement of dialysis and patient satisfaction.

Inclusion Criteria :

- All CKD PATIENTS on HD or peritoneal dialysis
- Admitted or day care patients .
- All conscious patients who were taking food orally.

Exclusion Criteria:

- Transplant patients
- Pediatric CKD patients
- Intubated or ventilated CKD patients
- CKD patients those are not taking food orally

Study Site: A Tertiary Care Centre in North East India.

An interventional study was conducted at the HD unit in three phases for a period of 3 months:

Phase 1 :

Baseline data was collected using 4 tools without any diet counseling

1. A self-administration questionnaire containing the following sections (Performa 1):
 - General information
 - Socio demographic data
 - Medical history
 - Dietary pattern
 - Functional capacity
 - Nutrition knowledge and attitude.
 - Biochemical Findings & Frequency of Dialysis and patient feedback to check satisfaction

2. SGA (subjective global assessment),
3. MIS (Malnutrition-Inflammation Score) to check nutritional status.
4. Dietary recall

Phase 2 :

Patients was counceled with fixed food item and Data was collected using same tools after one moth.

Phase 3 :

The patients was shifted again in second type of diet counseling which was fixed amount of food item diet counseling and the data was recollected using same tools after one month.

RESULT:

Phase 1:

No diet counseling:

Sample size - 94

Phase 2:

Fixed food items:

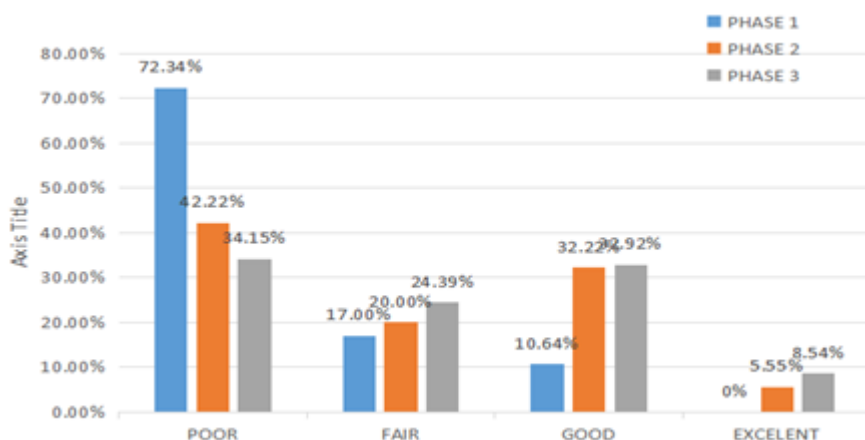
Sample size - 90

Phase 3 :

Fixed amount of food items:

Sample size - 82

Food Intake:



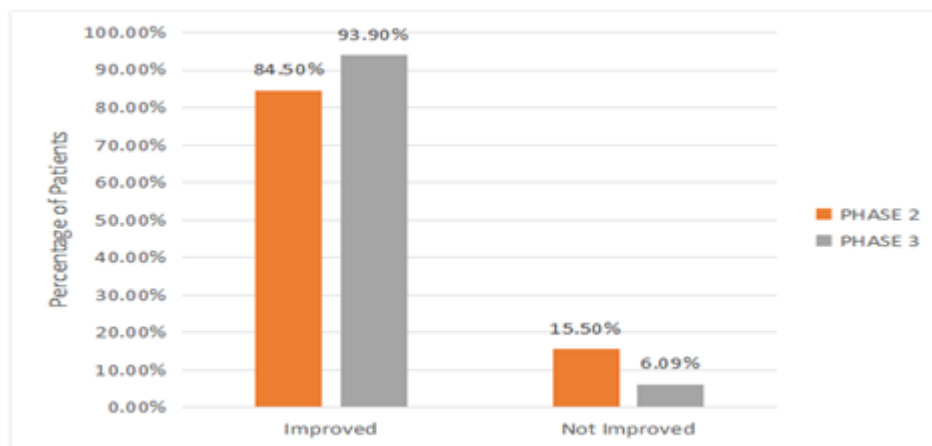
	POOR	FAIR	GOOD	EXCELLENT	TOTAL
PHASE 1	68	16	10	0	94
	72.34%	17%	10.64%	0%	
PHASE 2	38	18	29	5	90
	42.22%	20%	32.22%	5.55%	
PHASE 3	28	20	27	7	82
	34.15%	24.39%	32.92%	8.54%	

At initial phase or phase 1 food intake found to be poor in 72.34% among patients, while fair and good intake was found to be 17% and 10% respectively, where there was no counseling

At phase2, only do and don't were provided, after that which shows poor intake category decreased to 42.22% and fair and good intake categories were increased to 20% and 32.22%. 5% percent of patients also found to have excellent food intake in phase 2.

At phase 3, poor intake category dropped to 34.15% where as fair, good and excellent food intake categories increased to 24.39%, 32.92% and 8.54% respectively.

Impact Of Food Consumption:

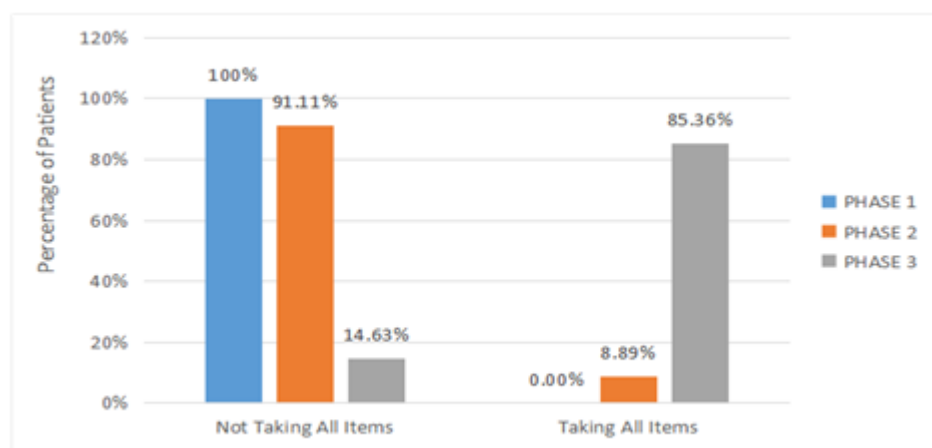


	Improved	Not Improved	Total
PHASE 2	84.5%	15.5%	
	76	14	90
PHASE 3	93.9%	6.09%	
	77	5	82

Impact of food consumption in phase 2 and phase 3 is quite visible as in phase 1 improved rate was 84.5% and phase 3, improved rate was 93.90%.

Similarly, a study done on adolescence showed nutrition counseling was effective to change their food consumption behavior as they were switched to healthy meals instead of junks (Singla, Sachdeva & Kochhar, 2012).

Consumption Of Food Items:



	Not Taking All Items	Taking All Items	TOTAL
PHASE 1	94 100%	0 0%	94 100%
PHASE 2	82 91.11%	8 8.89%	90 100%
PHASE 3	12 14.63%	70 85.36%	82 100%

During phase I 100% of patients were sacred to eat most of things in their plates, while in phage 2 improvement was found very little because of dis-likeness of allowed items while phage 3 was showed great improvement in their food choice in plate which was 85.36%. which clearly shoes that only by restricting food items we can not see significance improvement.

Study reported , Nutrition counseling sessions in previously malnourished renal dialysis patient showed great improvement in nutritional knowledge and practices that led to improved health status and also their performance in daily activity of life(Hegazy, et.al, 2013)

Conclusion:

Counseling could be the best way to improve patients food habit and choices. An Effective counseling with broad food item choice with proper portion size helps to improve not only their food intake but also mind satisfaction. Present study showed great improvement in dialysis patient in terms of food intake , food consumption from phase 1 till phase 3 where phase 1 had no counseling , phage 2 was involved only dos and don'ts 90 (fix item) counseling and lastly phase 3 which comprises of providing portioning size from different food groups with frequencies hence allowed large food choices rather than constricting themselves to only some food items.

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