

Short Communications

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Food Frequency Questionnaire Nutritional Assessment Tool can play a Promising Role in Understanding Eating Pattern of Renal Patients

Poonam Tiwari*

*Dr. Ram Manohar Lohia Institute of Medical Sciences,
Vibhuti Khand Gomti Nagar, Lucknow, India*

**Corresponding author*

ABSTRACT

Diet has a very prominent role in management of renal patients. Specific nutrients particularly proteins, carbohydrate, sodium, potassium, calcium and phosphorus intake is quite detrimental. Patients on Keto- Analogues have to be very careful regarding their protein restrictions similarly during oedema fluid and sodium restrictions need to be analysed. Therefore role of food and diet has now been kept on fore fronts in various therapeutic approaches. Kamyar (2011) also emphasised on periodic dietary assessment of dialysis patients can improve the clinical outcomes related to specific nutrients such as dietary protein, Phosphorus, Potassium etc. Food frequency questionnaire method is useful in demographic studies where one has to analyse the general eating pattern of a community or one segment of population. This method comprises of various food items and food groups which are likely to be consumed by that population. It is effective in depicting the trends of the eating pattern of a particular population or target group. Frequency of particular item can be well understood but in all consumptions the quantity may vary. Various food items may be family specific therefore there are probabilities that such food items may not find space in the FFQ. Different FFQ will be required for subjects of different regions as food habits vary from region to region. Food frequency method also requires precision in relation between consumption frequency pattern and quantity consumed in each frequency. Interviewer has to be well equipped with local eating trends, availability of regional or mentioned food items in particular locale. This FFQ assessment tool can prove to be a better tool if it is used as repeat FFQ on same respondents after counselling session so that the first FFQ and the repeat FFQ of the same subject can be compared and analysed.

Keywords

Renal patients,
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Diet has a very prominent role in management of renal patients. Specific nutrients particularly proteins, carbohydrate, sodium, potassium, calcium and phosphorus intake is quite detrimental. Patients on Keto-Analogues have to be very careful regarding their protein restrictions similarly during

oedema fluid and sodium restrictions need to be analysed. Therefore role of food and diet has now been kept on fore fronts in various therapeutic approaches. Nutraceuticals, assessment of the dietary intake and then analysing its key role in patient's nutritional status is also becoming an important factor in

understanding diseases. Patient's length of stay in hospital is also very well explained by his/her nutritional status. According to Crews, C.D. (2017) diet tends to be the most modifiable risk factors in progressive chronic renal disease. Only single nutrient impact on CKD had been studied largely but to assess overall impact of diet on CKD short food frequency method was developed. Diet is one of the most contributing factors in assessing renal health.

To understand the consumption pattern of renal patients in terms of the quality and quantity of specific nutrients is quite essential markers and needs proper assessment particularly in renal diseases. Thus cause and effect relationship can be maintained between dietary intake and co morbid conditions in CKD. There is strong relationship between nutrient intake and mortality in chronic dialysis patients. Hence better understanding of nutrition and nutrition support may help to improve the patient's health indicators. As mentioned by Wulandari *et al.*, (2018) dietary assessment is of utmost importance in haemodialysis patients. Kamyar (2011) also emphasised on periodic dietary assessment of dialysis patients can improve the clinical outcomes related to specific nutrients such as dietary protein, Phosphorus, Potassium etc.

Shim *et al.*, (2014) in their review article had mentioned various dietary assessment tools their strengths and limitations as well in length. Noori *et al.*, (2010) considered various dietary assessment tools particularly in individuals with CKD. This is how they summarised the overall analysis of different dietary assessment methods.

In the study conducted by Shim *et al.*, it was found that among various applicable dietary assessment methods the food frequency questionnaire (FFQ) has been quite preferred tool in various epidemiological studies of

1990s however FFQs accuracy was questioned in studies of 2000. Many researchers shifted their interest in improving the feasibility and accuracy of open-ended dietary assessment methods and even tried to find relevant bio markers. The 24 hours recall and dietary record are completely open ended survey and covers wide range of specific foods consumed by subjects.

Food frequency questionnaire method is useful in demographic studies where one has to analyse the general eating pattern of a community or one segment of population. This method comprises of various food items and food groups which are likely to be consumed by that population. It is effective in depicting the trends of the eating pattern of a particular population or target group. Frequency of particular item can be well understood but in all consumptions the quantity may vary. Various food items may be family specific therefore there are probabilities that such food items may not find space in the FFQ. FFQ may include the researcher's bias as he/she might not be in same temperament with each respondent therefore there can be possibility that certain food items go unacknowledged. The collected information can highlight the patterns of eating but detailed analysis to actually diagnose the nutritional status of the patient is not possible. FFQ tends to be more advanced and also assist in assessing the wide range of food items in cost effective and time bound manner.

One more practical issue which researcher faces while using this FFQ is that since there is no standardisation of recipes therefore one recipe as nutritionally evaluated by researcher might vary the way respondent prepares. FFQ comprises of long list of food items and the frequency pattern only indicates that whether respondent eats or not but suppose if in one consumption only quantity is too large then to

assess the nutritional status is quite difficult. FFQ tool to assess the nutritional status of patient is not so relevant because in certain disease conditions patient's appetite and choices changes due to disease conditions although he might be eating the particular food item more before the disease condition so it is difficult to frame the pattern of eating. In FFQ if local terminology is not used for various food items then it might not be understood by the respondent.

FFQ designed for one particular disease cannot be efficient alone to assess the eating pattern of the patients because the particular food items included might not be consumed in the way as mentioned in the FFQ although it might be taken in some other form. Different FFQ will be required for subjects of different regions as food habits vary from region to region. Food frequency method also requires precision in relation between consumption frequency pattern and quantity consumed in each frequency. Interviewer has to be well equipped with local eating trends, availability of regional or mentioned food items in particular locale.

This FFQ assessment tool can prove to be a better tool if it is used as repeat FFQ on same respondents after counselling session so that the first FFQ and the repeat FFQ of the same subject can be compared and analysed. This practice will increase the reliability and validity of the tool. Also the nutritional understanding of the patient can also be evaluated. This repeat exercise will also help the researcher to better understand where to exactly educate patient about his deviated eating habits.

After going through various researches and studies it can be concluded that all tools designed by the various experts to assess the nutritional and the dietary status of the populations do have certain strength and

certain limitations. They should be judiciously chosen keeping in mind the objectives of the study, scope of the study, type of subjects considered for the particular study. To frame the eating patterns of large population Food frequency method is a better option but assess the nutritional status of patients especially disease specific. 3 days detailed dietary record is more efficient. also certain medical practitioners try to get nutritional measurements and FFQ filled by other paramedical staff. In my opinion the apt and authenticated person is trained dietician. As recent recommendations by various researchers call for combination methods therefore dieticians who are specially trained to use these methods can be the most suitable person to maintain accuracy and specificity.

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