

## Original Research Article

# Assessment of knowledge regarding diet among hospitalized patients undergoing treatment for chronic ailments in a tertiary care hospital from Hyderabad

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### ABSTRACT

**Background:** Nutrition plays important role in the health, and specially in chronic diseases. It plays important role in all levels if prevention. Thus awareness of patients, suffering from chronic diseases is important in view of secondary and tertiary levels of prevention.

**Methods:** The present cross sections study was carried out with 20 question predesigned and tested questionnaire, in patients admitted to hospital for chronic diases with stay more than 15 days. Scores were calculated from the questionnaire administered and results compared.

**Results:** it was observed that awareness of patients about diet in chronic conditions was not adequate. Average scores on the 40-point questionnaire scale was 13.34, with  $SD \pm 2.23$ . It was observed that awareness increased as education, socio economic status increases.

**Conclusions:** It is recommended to have special nutritional counselling sessions for patients.

**Keywords:** Chronic illness, Diet, Hospital, Awareness, Morbidity

### INTRODUCTION

Nutrition is one of the most important lifestyle factors related to chronic diseases such as cancer, diabetes, and cardiovascular diseases, chronic obstructive pulmonary diseases.<sup>1,2</sup> Similarly, it has been associated with restriction of further deterioration, or recovery and predicting, perpetuating, or underlying factor in many diseases.<sup>1</sup> Health care systems play a key role in integrating nutrition care for individuals across primary to tertiary health care, at acute, subacute, chronic care, and home settings. Primary care refers to the initial care contact with a health provider where the majority of health problems are addressed. As part of a primary care, nutrition screening and dietary assessment are integral to the prevention and diagnosis of many conditions common in older adults, such as uncontrolled hypertension,

diabetes, CVD, gastrointestinal conditions (IBD), unexplained weight loss, and cancer. Due to the increased vulnerability of this life stage, a greater focus on dietary intake may be warranted during routine care.<sup>3</sup>

Hospitalized patients are subjected to acute illness and stress which may impact appetite or weight. This may lead to increased morbidity or mortality.<sup>4</sup>

Hospitalized patients who need special nutritional requirements, are provided through hospital diet during their stay in hospitals. But when they are discharged they need to follow certain dietary restrictions. Thus knowledge of dietary requirements for their medical conditions is required and necessary for patients. This study was carried out with the intention to assess the level of knowledge regarding diet among patients and to associate the level of knowledge regarding diet with selected

demographic variables among patients undergoing chronic inpatient treatments in a tertiary care teaching hospital from city of Hyderabad.

**METHODS**

This present cross sectional study was conducted in a tertiary health care teaching hospital from Hyderabad. With convenient sampling All patients, who were hospitalized for any illness with duration of hospital stay more than 15 days were eligible to participate in study. Participants not willing to participate and not in the position to study were excluded from study. The study commenced after ethical clearance of institutional ethics committee. Study was carried out over the period of 26 months, from November 2018 to January 2021. Participants were administered a questionnaire designed in either of the local languages viz. Telugu or Hindi language. Also, patients, who had primary care takers from health care industry (Doctors, nursing staff paramedics) were excluded from study, taking into consideration of their knowledge being influenced by those care takers.

A structured questionnaire was developed by the investigators on knowledge regarding diet for patients undergoing chronic treatment, which had primarily 20 questions related to knowledge of participants. Score of 2 was given to each correct answer and score 1 was given to partial correct answers. No scores were granted for wrong answers. Descriptive and inferential (ANOVA) statistics were used for final analysis with the help of EPI info (v7).

**Table 1: Scoring on knowledge regarding diet among chronically hospitalized patients.**

S. no.	Level of knowledge	Score range
1	No knowledge	0-05
2	Inadequate	06-15
3	Moderately adequate	15-30
4	Adequate	31-40

**RESULTS**

This study included total of 122 patients, who qualified the eligibility criteria and gave consent to participate in the study. Majority of study participants were males and belonging age group of 41-50 years. Followed by 31-40, i.e. relatively younger age groups. Hindus were in majority, followed by Muslims and Christians, representing demographic distribution of the area.

Majority of participants were educated till secondary level of education, followed by primary. 12.3% of the study participants were illiterate. When socio economic status was compared with BG Prasad scale of socio economic classification, it was observed that, majority of them were from class 3 of modified BG Prasad scale.

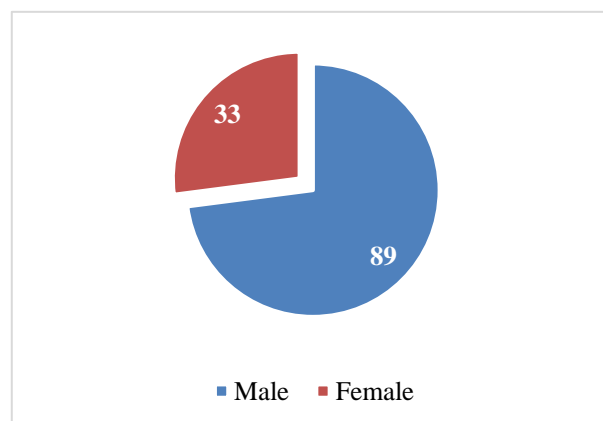
Only 11 (9%) of the participants were from higher socio economic classes.

**Table 2: Demographic distribution of study participants.**

Demographic variables	Number	Percentage
<b>Age (in years)</b>		
11-20	4	3.03
21-30	22	18.20
31-40	26	21.23
41-50	37	30.33
51-60	11	9.10
61-70	15	12.13
71-80	7	6.07
<b>Religion</b>		
Hindu	66	54.10
Buddhist	15	12.30
Muslims	30	24.59
Christian	11	9.02
<b>Occupation</b>		
Illiterate	15	12.3
Primary	17	13.93
Secondary	81	66.39
Higher Secondary	7	5.74
Graduate	2	1.64
<b>Income</b>		
BG Prasad class 1	14	1.48
BG Prasad class 2	30	24.59
BG Prasad class 3	67	54.92
BG Prasad class 4	9	7.38
BG Prasad class 5	2	1.64

**Table 3: Knowledge scores of study participants.**

Statistics	Knowledge score
Mean	13.34
Standard deviation	±02.23
Standard error of mean.	0.47
Range	7-18



**Figure 1: Distribution of study participants according to gender.**

Average score of the knowledge score questionnaire was 13.34, with standard deviation of  $\pm 2.23$ . there was significant difference between knowledge scores of males and females. Females had more average scores about knowledge of diet.

**Table 4: Comparison of gender os participants with knowledge scores.**

Gender	Mean	Standard deviation	Standard error
Male	12.59	$\pm 02.73$	0.58
Female	14.78	$\pm 01.77$	0.62
F value	18.324		
P value	<0.05		

**Table 5: Comparison of caste distribution with knowledge scores.**

Religion	Mean	Standard deviation
Hindu	13.08	$\pm 02.51$
Buddhist	12.50	$\pm 1.70$
Muslims	11.00	$\pm 03.35$
Christian	15.04	$\pm 1.87$
F value	7.606	
P value	<0.05	

**Table 6: Comparison of educational status with knowledge scores.**

Education	Mean	Standard deviation
Illiterate	09.33	$\pm 01.55$
Primary	12.80	$\pm 02.58$
Secondary	1.18	$\pm 02.50$
Higher Secondary	14.24	$\pm 1.45$
Graduate	15.5	$\pm 1.34$
F value	= 8.558	
P value	<0.05	

**Table 7: Comparison of socioeconomic status (Modified BG Prasad Scale) with knowledge scores.**

Socio economic Status	Mean	Standard deviation
BG Prasad Class 1	8.33	$\pm 3.20$
BG Prasad Class 2	12.80	$\pm 02.58$
BG Prasad Class 3	11.18	$\pm 2.21$
BG Prasad Class 4	14.24	$\pm 1.88$
BG Prasad Class 5	15.5	$\pm 2.34$
F value	11.482	
P value	<0.000	

It was observed that, as the educational status increased, the average scores increased, showing significant increase change in the average scores in comparison with the increase in educational standards of the study participants. Similarly, it was observed that as the

socioeconomic status of participants increased, there was increase in the average scores, showing significant association in socio economic status and knowledge scores.

## DISCUSSION

Despite of extensive literature search, we could not retrieve any study done in similar setting for discussion. However, some studies were done as community based projects where an attempt was made to find out association of few demographic parameters with knowledge of role of diet in causation of chronic diseases.

In a study done by Al-Muraikhi, Said, Selim, Chehab, found out that the knowledge of postmenopausal wome was batter in relation to causation of osteoporosis, as compared to those who were pre-menopausal age groups. This corresponds to our findings, as age increased, there was some advancement of knowledge in relation to diet for chronic diseases.<sup>5</sup>

Studies done by Hasan et al and Kim, Lee, Shin, Park, found out that, there was signifivant association between schoolasti education and awareness of diet in chronic diseases like osteoporosis. They found out significant association in educational status and awareness for diet in chronic health conditions.<sup>6,7</sup>

Patients should be aware that, legumes, potatos all pays important tole in each disease, as though some nutrients are provided with potatos as common dietary constituent in many countries, major source of energy in potatos is starch which has high glycemic index.<sup>8-10</sup>

## Limitations

The present study being a single setting study, the results cannot be generalized.

## CONCLUSION

It was concluded that, as education and socio economic status increases, there was increase in the knowledge about dietary requirements of study participants.

However, there was increase in knowledge it was limited increase and no one had adequate knowledge (scores>30). Very few had knowledge in the category of moderately adequate knowledge (score 15-30). Majority of the study participants had inadequate knowledge. Hence it is recommended to incorporate dietary counselling regularly to patients, admitted to hospitals.

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## REFERENCES

1. Elma Ö, Yilmaz ST, Deliens T, Clarys P, Nijs J, Coppieters I, et al. Chronic Musculoskeletal Pain and Nutrition: Where Are We and Where Are We Heading?. *PM&R*. 2020;12(12):1268-78.
2. Scoditti E, Massaro M, Garbarino S, Toraldo DM. Role of Diet in Chronic Obstructive Pulmonary Disease Prevention and Treatment. *Nutrients*. 2019;11(6):1357.
3. Bonilla C, Brauer P, Royall D, Keller H, Hanning RM, DiCenso A. Interprofessional dietary assessment practices in primary care: a mixed-methods study. *J Interprof Care*. 2016;30:77–82.
4. Howard ML, Hossaini R, Tolar C, Gaviola ML. Efficacy and Safety of Appetite-Stimulating Medications in the Inpatient Setting. *Ann Pharmacother*. 2019;53(3):261-7.
5. Al-Muraikhi H, Said H, Selim N, Chehab MA. The knowledge of osteoporosis risk factors and preventive practices among women of reproductive age in the state of Qatar: a cross-sectional survey. *Home*. 2017;4(2):522-7.
6. Hassan NE, El Shebini SM, El-Masry SA, Ahmed NH, El Sherity SY, Abd el Hamed ER, et al. Inter - Relationship of Awareness, Knowledge, Attitude, Some Socio-Economic Variables and Osteoporosis in Sample of Egyptian Women. *Open Access Maced J Med Sci*. 2019;7(15):2538-44.
7. Kim J, Lee J, Shin JY, Park BJ. Socioeconomic disparities in osteoporosis prevalence: different results in the overall Korean adult population and single-person households. *J Prev Med Public Heal*. 2015; 48 (2):84-93.
8. Atkinson FS, Foster-Powell K, Brand-Miller JC. International tables of glycemic index and glycemic load values. *Diabetes Care* 2008;31:2281-3.
9. Mattei J, Malik V, Wedick NM. Global Nutrition Epidemiologic Transition Initiative Reducing the global burden of type 2 diabetes by improving the quality of staple foods: The Global Nutrition and Epidemiologic Transition Initiative. *Global Heal*. 2015;11:23.  
Bazzano LA, Thompson AM, Tees MT, Nguyen CH, Winham DM. Non-soy legume consumption lowers cholesterol levels: a meta-analysis of randomized controlled trials. *Nutr Metab Cardiovasc Dis*. 2011;21:94-103.

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