

## ESTABLISHMENT AND PERFORMANCE EVALUATION OF NUTRITION COUNSELLING CENTER

**KAVITA PATIL & RAMA NAIK**

Rural Home Science College, University of Agricultural Sciences, Dharwad, Karnataka, India

### ABSTRACT

Modernization and industrialization have created several health related problems. The prevention of any disorder is through intervention nowadays. Inclusion of health education and counselling regarding nutrition aspects act as most effective measure. A nutrition counselling center was established in the University of Agricultural sciences, Dharwad, Karnataka. Among visitors of the center majority were rural people (63.84%). It was found that, among the total visitors having nutritional problems, 81.13 per cent (n=129) of subjects were undernourished, 11.95 per cent (n=19) were obese and 4.40 per cent (n=7) were diabetic. Evaluation of performance of the nutrition counselling center at the end of study period (6 months) revealed that, both on campus and off campus counsellees appreciated the working hours, publicity given about the center and mode of counselling programme conducted. Counsellees also suggested to increase the working hours and off campus activities of the center for the benefit of the population.

**KEYWORDS:** Nutrition Counselling. Nutrition Counselling Center On-Campus Counselling and Off-campus Counselling

### INTRODUCTION

Modernization and industrialization have created several health related problems. The World Health Organization (WHO) has estimated over 57 million Indians will suffer due to diabetes by 2025 (Anon 1999). Cardiovascular disease is emerging as a major health problem in India, where diet plays an important role in the causation of this multifaceted disease (Abraham and Jagannathan 1989).

The prevention of any disorder is through intervention. Inclusion of health education and nutrition counselling act as most an effective measure for the treatment of many disorders. As many people are ignorant about their health problems, in the present study an attempt was made to assess the nutritional status of the population. Both urban and rural population was included in the study to impart nutrition counselling to empower them to avail both preventive and therapeutic counselling services by themselves.

Agricultural University is a place where both rural and urban population for visit. Hence a research has been undertaken to establish a counselling centre in Agricultural University, to create public awareness about the centre, to perform counselling activities and to evaluate the performance of the center.

### METHODOLOGY

Nutrition counselling center was established in the Agricultural University, Dharwad campus at Agricultural Technology information centre (ATIC) utilizing the available material and human resources. To create, inter public

awareness about the center, different advertising media *viz*, print media, mass media and interpersonal communication in local hospitals and Mahila Mandals were utilized.

People visiting ATIC unit were registered, besides the public from city and nearby villages. As the first step of counselling, a good rapport was established with the subjects and the public with cordial talks and homely environment. The anthropometric measurements *viz*, height, weight, mid upper arm circumference and waist to hip ratios were recorded during their first visit. The measurements were repeated at their subsequent visits, wherever needed. The meals of the registered group were checked for the basic five food groups. Few of the referral cases such as diabetes, hypertensive, anemic etc were either sent by general practitioners or had come voluntarily were also considered for counselling. Through background information and medical reports of the subject, and the degree of their problem was assessed and necessary counselling was planned and imparted by the nutrition specialists of the center.

As a part of off campus counselling activity, counselling in- pediatrics and gynaec wards of randomly selected two hospitals of Dharwad city was carried out. Nutrition education was imparted on importance of food in maintenance of health and prevention of disease in randomly selected three mahila mandals of the city.

To conduct on campus counselling activities, a counselling day for diabetes was organized where-in medically diagnosed diabetics were grouped and counselled for modification of diet. Obese subjects from the University voluntarily participated in the in-depth counselling activities for period of one month. Various approaches used in nutrition education also need to be evaluated to decide the course of future action (Brown et al. 1992). Hence, the counselling centre was evaluated by both on-campus and off-campus counselees who visited the centre for the second time.

## RESULTS

A total of 318 visitors registered for nutrition counselling center. Distribution of the visitors belonging to different age groups is presented in Table 1. It is evident from the table that among the population visited; total number of males was higher (92.76%) than the females (7.24%). Similarly, higher number of the rural population (63.83%) visited the center against urban population (36.16%), as the nutrition counselling center was established in Agricultural University, mostly villagers visited the center.

Table 2 represents the frequency and percentage of population who are normal and with nutritional problems. Out of 295 total adult subjects 145(47.69%) were found normal without any nutrition related problems, whereas majority, that is, 159 (52.31%) subjects had both felt and unfelt nutritional problems. Among these subjects with nutritional problems 81.13 per cent of the subjects (n=129) were found undernourished. Most of the visitors were farmers who had meager land and were economically poor. Further, 0.63 per cent (n=1) were anemic, 4.40 per cent (n=7) were diabetic, 1.89 per cent (n=3) were hypertensive and 11.95 per cent (n=19) of the subjects were found obese.

To evaluate the performance of nutrition counselling center, the location of the center, working hours, adequacy of publicity given, counselling programme and suggestions to the center were the points considered for on-campus and off-campus counselees (Table 3). It can be seen that 87.50 per cent (n=7) on campus counselees considered the center as easy to locate as they were residing within the campus. The agricultural university is situated 5 km away from the city, hence few of the (12.50%) city dwellers/ off campus counselees felt it as located in an interior place (n=8) found that the center was difficult to locate.

All the campus dwellers (n=8) and 19 off-campus dwellers felt that the working hours of the center was convenient. All off campus counsellees suggested extending the working hours. 63.33 per cent of off-campus counsellees opined the need of more publicity whereas, majority (62.50%) of on campus counsellees felt that the publicity given was adequate.

Majority of the on-campus counsellees (75%) and off-campus counsellees (63.33%) rated the counselling programme as excellently conducted. Further, 23.34 per cent of off-campus counsellees felt the need to increase the course content and 13.33 per cent suggested increasing audio-visual aids. About 63.33 per cent of the off campus counsellees suggested to increase off campus counselling activities whereas, 23.34 per cent suggested increasing working hours and then 13.33 per cent suggested collecting fees from the clients.

## DISCUSSIONS

Nutrition is a multidisciplinary concept. Hence, to deal with any nutritional disorder a multidisciplinary approach is essential. As Agricultural University has multidiscipline, dealing with food production, processing and consumption in general, it was ideal to establish a nutrition counselling center at the college of Rural Home Science in ATIC. It is pertinent to establish the center in ATIC as the center works on the principle of single window concept to depict to the community a clear picture about the university functioning. Nearby villagers very often visit the information centre. Coupled with this, the ATIC had access both to urban and rural population.

Different advertising media *viz*, handouts, All India Radio, film slides, personal contacts with medical personnel and Mahila Mandals became helpful in creating public awareness about the centre. Advertisement plays an important role in driving the attention of consumers (Rasool et al. 2012). The impact made by advertisement about the center was visible as a total of 318 people visited the center (Table 1).

Majority of the subjects visited the center were not having any realized nutritional problem but were under nourished. Hence, requirement of proper nutrition is unfelt problem. Only few were having felt nutritional problems such as, anaemia, diabetes, hypertension and obesity (Table 2). Poverty, poor nutritional knowledge and household problems were the prime causes of the impending under nutrition.

The center worked from 9.00 am to 4.00 p.m. on all the working days of the University. All the campus dwellers and majority of off-campus dwellers felt that the working hours of the center were convenient as they can come to the center during leisure (Table 3). All off-campus counsellees comprising housewives opined that they get time usually during evenings and hence suggested to extend the working hours beyond 4.00 p.m. Further, the need to continue advertising about the center was felt because many of the off-campus counsellees opined the need of more publicity. But majority of on campus counsellees felt that the publicity given was adequate as they often observed the community activities of the foods and nutrition department and the advertising media used were effective in conveying the message.

The counselling programme which was carried out with the help of nutrition specialists was effective in conveying the nutrition related messages. The off-campus counsellees were dealt in group, not individually. In group usually the counselling will be carried out in general considering the overall aspect about the disorder. Hence the counsellees expressed the need to increase the course content and audio-visual aids (Table 3). Importance of audio-visual aids was also expressed by glucoma patients to make counselling effective (Taylor et al. 2005).

Having observed the importance of nutritional counselling, several counselees gave suggestions to the center. To get more benefit and to be aware of several nutritional factors many of the off campus counselees suggested to increase off campus counselling activities. To make the information given through counselling effective, important and weighty counseles suggested to increase working hours and to collect fees from the clients (Table 3).

## CONCLUSION AND RECOMMENDATIONS

It can be concluded that majority of people are having unfelt nutritional problems and are suffering from undernutrition. The problem should be addressed through proper nutrition counselling. The nutrition counselling centers equipped with excellent experts along with good quality teaching material and audio-visual aids can help in combating the problem and also can provide basic nutrition knowledge to increase the healthy living of the population.

## REFERENCES

1. Abraham RA, Jagannathan D 1989. Impact of diet counselling on selected obese cardiovascular patients. *The Ind J of Nutr and Dietet*, 26: 249.
2. Anonymous 1999. Economics of Diabetes. *The Times of India*, Bangalore Edition. November 16, P.5.
3. Brown LV, Zeittin MF, Peterson KE, Chowdhary AM, Rogers BL 1992. Evaluation of the impact of weaning food messages on infant feeding practices and child growth in rural Bangladesh. *Is J of Clin Nutr*, 56(6): 994-1003?
4. Mehta P, Nanavaty K, Phadake S, Baxi S, Parikh N 1989. Effect of dietary counselling on knowledge gain of middle and high income group diabetics. *The Ind J of Nutr and Dietetic*, 26(8): 260-264.
5. Rasool MS, Rafiq Y, Naseem MA, Javaid S, Najeeb M, Hannan M 2012. Impact of advertisement on the consumer behavior of FMCG in Lahore city. *Acad Res Int*, 2(3): 571-574.
6. Taylor JG, Deschamps MA, Bobyn PJ, Leson D 2005. Patients' preferences for methods of counselling about glaucoma. *Canadian Pharmacists Journal*, 138(7): 56-62.

## APPENDICES

**Table 1: Distribution of the Visitors Based on Age Gender and Locality**

Age group (years)	Sex		Locality		Total
	Male	Female	Urban	Rural	
<b>Preschool age (3-6)</b>	3(100)	0(0.00)	2(66.66)	1(33.34)	3(0.95)
<b>School age</b>	9(81.81)	2(18.19)	327.27)	8(72.73)	11(3.46)
<b>Adolescence (13-18)</b>	48(100)	0(0.00)	13(27.08)	35(72.92)	48(5.09)
<b>Adult (19 and above)</b>	235(92.76)	21(8.12)	97(37.89)	159(62.11)	256(80.50)
<b>Total</b>	<b>295(92.76)</b>	<b>23 (7.24)</b>	<b>115(36.16)</b>	<b>203(63.84)</b>	<b>318(100.00)</b>

Figures in the parenthesis indicate percentages.

Table 2: Classification of the Visitors of the Nutrition Counselling Centre Based on Nutritional Problems

Type of Subject	Number of Subjects	Percentage
Normal	145	47.69
Having Nutritional Problems	159	52.31
Undernourished	129	81.13
Anemic	1	0.63
Diabetic	7	4.40
Hypertensive	3	1.89
Obese	19	11.95
Total		

Table 3: Performance Evaluation of Nutrition Counselling Center

Aspects/Parameters	Counselees	
	On-Campus(N=8)	Off-Campus (N=30)
<b>A. Location</b>		
1) Easy to locate	7(87.50)	8(26.67)
2) Located in an interior place	1(12.50)	15(50.00)
3) Difficult locate	0	7(23.33)
<b>B. Working Hours</b>		
1) Convenient	8(100.00)	19(63.33)
2) Not convenient	0	11(36.67)
<b>C. Publicity Given</b>		
1) Adequate	5(62.50)	7(23.34)
2) More publicity needed	3(37.50)	19(63.33)
3) More modes of publicity be used	0	4(13.33)
<b>D. Counselling Programme</b>		
1) Excellently performed	6(75.00)	19(63.33)
2) Contents be increased	0	7(23.34)
3) Audio-visual aids should be increased	2(25.00)	4(13.33)
<b>E. Suggestions</b>		
1) Working hours should be increased	2(25.00)	7(23.34)
2) Out campus counselling should be increased.	3(37.50)	19(63.33)
3) Fees should be collected	3(37.50)	4(13.33)

Figures in the parenthesis indicate percentages.

