



Effect of Acquired Nutrition Knowledge on Nutritional Status And Dietary Practices Among Nutritionists

Shivani Sharma

Department of Nutrition and Dietetics Manav Rachna International University, Faridabad, Haryana 121004,

**Pratima Arora
Kadian**

Department of Nutrition and Dietetics Faculty of Applied Science Manav Rachna International University, Faridabad, Haryana 121004, India

G. Vani Bhushanam

Department of Foods and Nutrition Sports Science Centre Sports Authority of India, New Delhi 110003, India

ABSTRACT

The study entitled "Effect of acquired nutrition knowledge on nutritional status and dietary practices among nutritionists" was conducted with the objectives to assess the impact of long-term acquired nutrition knowledge on dietary practices among nutritionists and to identify the barriers in following the healthy lifestyle.

Nutritionist is a person who advises on matters of food and nutrition and its impacts on health. The study was conducted in different hospitals of Faridabad, Delhi and Gurgaon. Anthropometric measurements, 24 hour dietary recall Food Frequency Questionnaire (FFQ) method was used to assess the nutritional status of the nutritionists. Questionnaire-cum-interview schedule was used to elicit information on life style pattern and dietary practices.

The results revealed that 40% of the subjects were had normal BMI. 34% were overweight, 14% and 8% subjects fall under Obese I –Obese II category respectively and 4% subjects fall under underweight category. The calorie, carbohydrate, and iron intake was below the RDA. The protein intake was adequate, while calcium and fat intake was above the RDA. 42% subjects skipped atleast one meal and the frequency of skipping meal was mostly, once a week. 40% of the subjects consume packed food once a month and 12% of the subjects consumed supplements like (multi-vitamin, vitamin D3, B12 and protein) on the advice of a doctor.

KEYWORDS

Anthropometric measurement, dietary intake, life style pattern, nutritional status.

Introduction:

Nutritionist is a person who advises on matters of food and nutrition and its impacts on health in order to lead a healthy lifestyle or to achieve a specific health-related goal. The need for dietitians and nutritionists is increasing every day with sedentary lifestyles, high consumption of fast food and other food related health disorders at an all-time high. They also help to reduce the resistance for diseases, such as malaria, by providing diets rich in protein and calories.^[1]

In recent years, considerable attention has been focused on documenting the rise in overweight and obesity in developing economies,^[2-4] and potential contributing factors that have been investigated include changes in the nature of work and transportation, the expansion of mass media and the increased consumption of energy-dense processed foods^[5,6]. Although obesity has a genetic etiology, the major precipitating factor is environmental, mostly related to sedentary lifestyle and causing conservation of energy as body fat^[7].

One of the strongest predictors of health promotion counseling by primary care physicians is practicing a healthful behavior themselves. It is clear that many physicians report difficulty counseling patients about behaviors they themselves do not practice^[8,9]. Therefore, the may be applicable to nutritionists as role models mediate behavior change which is the key to diet counseling.

This study aimed to investigate the impact of long-term acquired nutrition knowledge of nutritionists and their dietary practices in daily life.

Material & Methods:

A cross sectional study was conducted in different hospitals of Faridabad, Delhi and Gurgaon through purposive sampling. Data on Anthropometric measurement, dietary intake, lifestyle pattern, dietary practices was collected to assess the nutritional status of 50 Nutritionists using Interview cum questionnaire, 24 hour dietary recall and Food Frequency Questionnaire (FFQ) methods. Heights and weights were also recorded and BMI calculated.

Results & Discussion:

The mean age of the subjects was 27 ± 4.76 years, weight was 55.18 ± 7.18 kg and height was 156.62 ± 4.68 cm. The results showed that 40% of the subjects had normal BMI, 34% were

Overweight ; 22% were obese (14% and 8% Obese I and Obese II respectively) and 4% were underweight.

Table 1 depicts the Dietary intake and Nutrient Adequate Ratio (NAR) of the subjects. It reveals that the calorie, carbohydrate, and iron intake was below the RDA. The protein intake was adequate, while calcium and fat intake was above the RDA.

Table 1: Dietary Intake and Nutrient Adequate Ratio (NAR) of the Subjects

Nutrients	RDA,2010 ^[10]	Nutrient Intake	NAR
Energy (Kcal)	1875	1629	0.8
Protein (g)	50	48.8	0.9
Fat (g)	20	54.7	2.7
Carbohydrate (g)	281	225.3	0.8
Calcium (mg)	400	747.5	1.8
Iron (mg)	30	12.5	0.4

Table 2 depicts the mean intake of different food groups of the subjects. The study revealed that the intake of cereals & millets, leafy vegetables was less while the intake of pulses & legumes, roots & tubers, other vegetables, fruits and milk was more than the required amount. 50% of the subjects consumed toned milk while 28% and 22 % subjects consumed double toned and full cream respectively. The intake of the meat and meat products by non vegetarians was less than the recommended allowance. Though the mean intake of fats and oils was less, the consumption of fried foods like katchori, samosa resulted in higher fat intake than recommended. The intake of sugar and jaggery was less than the required amount.

Table 2: Daily mean intake of different food groups.

FOOD ITEMS	RDA (in grams) ^[11]		INTAKE	
	Vegetarians (n=23)	Non-vegetarians (n=27)	Vegetarians (n=23)	Non-vegetarians (n=27)
Cereals and millets	260	250	221.7±57.4	232.7±67.3
Pulses and legumes	60	50	95.2±71.5	80.2±61.18
Leafy vegetables	100	100	56.41±47.7	43.0±30.8
Other veg.	75	75	183.7±86.8	167.3±81.4
Roots and tubers	50	50	518.4±88.3	568.5±156.3
Fruits	60	60	239.8±216.7	323.6±277.1
Milk and milk products	400	250	526.9±266.5	495.1±249.4
Meat and meat products	0	90	-	58.6±15.3
Fat and oil	30	35	15.0±11.7	16.9±9.4
Sugar and Jaggery	30	30	12.3±6.9	14.0±63.8

It was found that 5 meals pattern was followed by (54 %) of the subjects. It was also found that 42% subjects skipped meals. The subjects reported that dinner was the most due to lack of time. The alternative food items consumed during the skipped meal time included chips, burger, pizza, patties, juice, samosa and other junk food in their diets. 40% of the subjects consume packed food once a month and 12% of the subjects consumed supplements like (multi-vitamin, vitamin D₃, B₁₂ and protein) on the advice of a doctor.

This study shows that 62% of the total subjects were involved in daily physical activity and around 38% were not involved in any kind of physical activity. It was found that brisk walking was the most preferred. Other activities included jogging, indoor games, outdoor games, swimming and others. The mean time expended on physical activity was around 1 hour and 18 minutes (78.7minutes) daily.

Conclusion:

Long-term acquired nutrition knowledge can hold good when the knowledge is translated in practice. Healthy life style and dietary practices can lead to long health benefits. The impact and benefit of role modeling by the health care professional can be an easy way in convincing desired behavior change with patients.

Bibliography:

1. Messer, Ellen (1989). *Indian nutritionists and international nutritional standards: Concepts and controversies. Social Science and Medicine* 29(12): 1393-1399.
2. Mendez M A, Monteiro C A, Popkin B M. (2005). Overweight exceeds underweight among women in most developing countries. *Am J Clin Nutr*; 81:714-21.

3. Caballero B. (2001). Obesity in developing countries: biological and ecological factors. *Journal of Nutrition*; 131:866-70S.
4. Monteiro C A, Conde W L, Lu B, B M Popkin. (2004) Obesity and inequities in health in the developing world. *International Journal of Obesity*; 28:1181-6. 28, 1181-1186. doi:10.1038/sj.ijo.0802716
5. Popkin B M, Horton S, Kim S, Barry M, Susan Horton, Ajay Mahal, Jin Shuigao. (2001) Trends in diet, nutritional status, and diet-related non-communicable diseases in China and India: the economic costs of nutrition transition. *Nutr Rev*; 59:379-90.
6. Popkin B M. (2003). The nutrition transition in the developing world. *Development Policy Review*; 21:581-97.
7. Arye Lev-Ran: (2001). Human obesity: an evolutionary approach to understanding our bulging waistline. *Diabetes Meta Res Rev* 17:347-362.
8. Frank E. Physician health and patient care. *JAMA*. (2004); 291:637. doi: 10.1001/jama.291.5.637.
9. Vickers KS, Kircher KJ, Smith MD, Petersen Larra R, Rasmussen Norman H. (2007). Health behavior counseling in primary care: provider-reported rate and confidence. *Fam Med*; 39:730-5.
10. Recommended Dietary Allowances (2010) Nutrient Requirement and Recommended Dietary allowances for Indians, National Institute of Nutrition.
11. M. Swaminathan (2006) *Balanced diet for normal women I.C.M.R, Expert group, 1968*, Advanced Textbook of Food & Nutrition, Volume-2, pg no.20.