

Prevalence of Micronutrient Deficiency among Tribal Women

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Abstract

The status of tribal women in a society is a significant reflection of the level of social justice, in that society women status is often described in terms of their level of income employment, education, health, food, dietary intake and nutrition as well as the roles they play with in family the community and society. Tribal communities lag behind other communities with respect to attainment of income, education, health and other requisites for good community nutrition. Thus the study of tribal women cannot be ignored. For this there is a need of for proper understanding of their problem specific to time and place so that relevant development programmes can be made and implemented. The present study was conducted in different areas of Kanpur. 100 samples were taken randomly. Survey was done by questionnaire-cum-interview method. Micronutrients intake was recorded using 24-hour recall method. Maximum 62.50 percent deficiency of β -carotene was found in the age group of 20 to 30 years. 32.72 percent deficiency of thiamine was found in age group of 50. 76.66 percent deficiency of riboflavin was found in the age group of 40 to 50 years. 69.05 percent deficiency of niacin was found in 40 to 50 years of age group. 58.75 percent deficiency of ascorbic acid was found in the age group of 20 to 30 years. Nutrients like β -carotene, thiamine, riboflavin, niacin and ascorbic acid were found low as compared to recommended dietary allowances due to very low consumption of green leafy vegetables, fruits and poor cooking practices.

Key words: Tribal women, Nutrients intake, Thiamine. Niacin

Introduction

In India, the general health status of the tribal women is known to be poor. The widespread poverty, illiteracy, malnutrition, unavailability of safe drinking water and sanitary and living condition, poor maternal and child health services are possible contributing factors for miserable health conditions prevailing among tribal women.

Thus the study of tribal women associated with nutrition and indirect contributory factors are important. It becomes important because the problems of tribal women differ from a particular area to another area owing to their geographical location, historical background and the processes of social change.

Materials and Methods

The study was carried out in the Department of Food Science and Nutrition, C.S.A University of

Agriculture and Technology, Kanpur. The present study was conducted in different areas of Kanpur. For this 100 samples were taken randomly from Kalyanpur, Barra, Gallamandi Naubasta, Vijaynagar, Chhpeda Pulia, Raina Market of Kanpur city Survey was done by questionnaire-cum-interview method. Micronutrients intake was recorded using 24-hour recall method. The primary tools used in the study were dedicated programme. The information was obtained from the respondent by the interview method. Each subject was selected individually and persuaded to answer all questions in the pretested questionnaire and their response was recorded.

Micronutrient Deficiency among tribal women:

Table 1 shows that maximum 62.50% deficiency of β -carotene was found in the age group of 20 to 30 years as minimum 52.5% deficiency of β -carotene was found in the age group of 40-50 years in comparison to recommended dietary allowances. The higher

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Table 1: β -carotene consumption of tribal women as compared to R.D.A.

Age Group (year)	Frequency	β -carotene (μg)	RDA	Deficient (%)
20-30	15	900 \pm 80	2400	62.50
30-40	56	1020 \pm 110	2400	57.50
40-50	22	1140 \pm 105	2400	52.50
50 and above	7	990 \pm 92	2400	58.75
Total	100	1035 \pm 87		
r		-0.1676		

deficiency in β -carotene intake was due to very low consumption of green leafy vegetables and fruits and poor cooking practices.

Table 2: Thiamine consumption of tribal women as compared to R.D.A.

Age Group (year)	Frequency	Thiamine (mg/d)	RDA	Deficient (%)
20-30	15	1.06 \pm 0.36	1.2	3.63
30-40	56	0.83 \pm 0.41	1.2	24.54
40-50	22	0.81 \pm 0.32	1.2	26.36
50 and above	7	0.74 \pm 0.28	1.2	32.72
Total	100	0.86 \pm 0.39		
r		-0.192		

Table 2 shows that maximum 32.72% deficiency of thiamine was found in age group of 50 and above whereas minimum 3.63 percent deficiency of thiamine was found in the age group of 20 to 30 years in comparison to recommended dietary allowances.

Table 3: Riboflavin consumption of tribal women as compared to R.D.A.

Age Group (year)	Frequency	Riboflavin (μg)	RDA	Deficient (%)
20-30	15	0.50 \pm 0.35	1.5	66.66
30-40	56	0.36 \pm 0.18	1.5	76
40-50	22	0.35 \pm 0.16	1.5	76.66
50 and above	7	0.38 \pm 0.12	1.5	74.66
Total	100	0.38 \pm 0.19		
r		-0.2166		

Table 3 shows that maximum 76.66% deficiency of riboflavin was found in the age group of 40 to 50 years whereas 66.66% deficiency of riboflavin was found in 20 to 30 years in comparison to recommended dietary allowances because of the diet was deficient in green leafy vegetable, fruits, fish, broccoli, poultry, grains and meats etc.

Table 4: Niacin consumption of tribal women as compared to R.D.A.

Age Group (year)	Frequency	Niacin (μg)	RDA	Deficient (%)
20-30	15	8.06 \pm 2.66	16	59.7
30-40	56	6.52 \pm 2.30	16	67.4
40-50	22	6.19 \pm 2.28	16	69.05
50 and above	7	6.49 \pm 2.21	16	67.55
Total	100	6.68 \pm 2.86		
r		-0.2166		

Table 4 shows that maximum 69.05 percent deficiency of niacin was found in 40 to 50 years of age group and minimum 59.7 percent deficiency of niacin was found in 20 to 30 years of age group in comparison to recommended dietary allowances. The higher deficiency of Niacin was due to lower intake of meat, poultry, fish, peanuts, milk and egg.

Table 5: Ascorbic acid consumption of tribal women as compared to R.D.A.

Age Group (year)	Frequency	Ascorbic acid (mg/d)	RDA	Deficient (%)
20-30	15	16.5 \pm 6.2	40	58.75
30-40	56	19.3 \pm 9.3	40	51.75
40-50	22	18.7 \pm 8.2	40	53.25
50-above	7	19.1 \pm 7.7	40	52.25
Total	100	18.2 \pm 2.8.0		
r		-0.1605		

Table 5 shows that maximum 58.75% deficiency of ascorbic acid was found in the age group of 20 to 30 years whereas minimum 51.75% deficiency of ascorbic acid was found in 30 to 40 years in comparison to recommended dietary allowances because the diet was deficient in citrus fruits like orange, amla, lemon etc. They take green chilies as a sources of vitamin C.

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