

CHAPTER - VII

NUTRITION EDUCATION

This chapter deals with the few aspects of nutrition and health education. The points in this chapter are :

- I) Introduction
- II) Earlier Works
- III) Results and Discussions
- IV) Conclusion

I INTRODUCTION

India's food and nutrition problem continues to be formidable and malnutrition is still one of the crucial problem in the process of development. A majority of population of every age group including both the sexes suffer from malnutrition bordering on both calorie and protein starvation and a complete lack of protective food.

Malnutrition is not exclusively due to non-availability of nutritious food. Failure to use the available resources in meaningful manner can be another cause. This is mainly due to lack of knowledge of value of foods in relation to the needs of individual. Ignorance and superstitions play a great role in rejection of locally available cheap nutritious foods.³¹⁶

It is well known that the widespread under-nutrition which exists in countries like India, is due to a gamut of factors such as low income , poor education level, too many births and little parent-attention.³²⁶

The determinants of malnutrition at different levels are many. Socio economic factors like family size, food habits and beliefs, purchasing capacity of family, health aspects and environment directly influence the diet of people. At the individual level food and nutrient intake and its utilisation depend on factors like age, physiological and pathological status of the person.

In India, where the literacy level of tribal people is very low as formal education , non-formal education like nutrition education can play important role for the upliftment of tribal population.

The nutritional well being of a population is an indication of national development and as such reflects the combined performance of social, economic, agricultural and health sectors. Nutrition is also an essential input for national development with healthy, well nourished and educated population, being the best foundation for promoting overall national productivity and progress.³²³

Albanese³¹⁷ defined nutrition education as means of translating nutritional requirement into food, and adjusting the food choice to satisfy nutritional, cultural, psychological and economic needs. Nutrition education is the progress by which beliefs, attitudes, environmental influences and understanding about food are converted into practices, which are nutritionally sound and consistent with individual needs, purchasing power, available food sources and socio cultural background.³¹⁸

To get better result of nutrition education, it is necessary that it should be practical and carefully designed to suit the socio economic conditions of tribal community of the area. The stages in nutrition education are described by Devdas³¹⁹. The individual goes first through AWARENESS or getting the first knowledge about a new idea or practice. ATTENTION comes next creating an INTEREST in the project to what it is, how it will work and what it will achieve. Interest must be followed by the urge or the DESIRE to act. At this stage the individual EVALUATES the information received and decides whether or not the idea, product or practice is suitable for him/her and whether or not he / she wants to adopt it.

Education is primarily matter of communication. The purpose of communication is to transmit information from a person or group of persons to other person or groups with a view to bring about the behavioural changes.

FAO and WHO, have since their inception, provided technical aid and stimulated co-operation among countries in the fields of nutrition education. Recognizing that the education is necessary to improve the health and well being of mother and children, UNICEF has made it possible, for FAO and WHO to expand the programmes.

Method of educating is an important factor in effective communication. In nutrition education either audio or visual or audiovisual both type of methods can be used. Posters, charts, pamphlets are the visual methods and TV, slide, tape combination are the audiovisual methods.

Use of radio or TV is inevitable where very large audiences are required to be exposed simultaneously.³²⁰

Success of implementation of nutrition education is affected by socio economic and cultural factors such as knowledge of people, awareness, interest, poverty, food beliefs, illiteracy, customs etc.

To give awareness regarding certain nutrition and health concepts to hill Korwas, nutrition education was given to them. However a long-term nutrition education is necessary to bring about permanent changes in the knowledge, attitude and practices of the tribe.

II EARLIER WORKS

Arora et al³²¹ reported that maternal literacy was more closely related to early on set of breast-feeding than parental literacy. Statistically significant observation was that the level of literacy was associated with the incidence of schedule feeding. Also the educated introduced solid foods at an early age than the illiterates.

Nagwekar³²² conducted a study on rural mothers of Gujarat and found that the average knowledge of the mothers in child nutrition was below 50% of the total knowledge considered essential for these mothers. This study indicates the need for education in nutrition among the rural mothers.

M.C. Swaminathan³²³, Deputy Director National Institute of Nutrition Hyderabad, had a planning for tribal nutrition. He had suggested that integrated planning should first concentrate on improving the environment. For effective implementation of programmes a suitable administrative machinery may be developed and participation of the community served should also be encouraged.

A report on ICDS (Integrated Children Development Scheme) in Baihar area of Balaghat district of Madhya Pradesh, A.L. Nanheria³²⁴ suggested that the nutritional status of children in project area can be improved without their regular attendance in 'Anganwadies'. This can be developed through nutrition education to their parents. Dr. Aruna Palta⁶² in her studies on Baigas has suggested some points to improve the nutritional status of Baigas. She also suggested that an intensive extension health and hygiene education should be given to Baigas.

Urmila Pingle¹²⁸ has suggested in her project that a crèche for children of working tribal women can relieve the mothers and it can also be used as a place for imparting nutrition and health education to the mothers.

In another study Asha Mane and Vijaya Bantey¹²⁴ found that nutrition education programme improved the knowledge of mothers and the tribal woman had prepared different types of nutritious food for their children after such an education campaign.

In her study Nisha Sharma²⁰⁴ found that knowledge of Kamar tribe about nutrition was poor. After the short-term nutrition education Kamars had changed their attitude towards locally available food supplements.

III RESULTS AND DISCUSSIONS

Nutrition education programme in this study was conducted into two steps. In first step knowledge of tribal people was collected through a questionnaire which consisted of 56 questions. This questionnaire was further categorized into six groups. In second step, the effect of nutrition education was evaluated through the same questionnaire.

The mean score of 'before' and 'after' nutrition education are shown in table - 61 whereas the concepts of health of subjects are shown in table - 54-60.

The knowledge of Hill Korwas regarding different aspects of nutrition and health was assessed by the number of correct answers given by them.

The first group " Basics of health and nutrition " consisted of 7 questions. For first question, percentage for correct answer in terms of 'before' and 'after' education was 11.34 percent and 14.38 percent. Percentage for incorrect answer in terms of 'before' and 'after' education ^{was} 40.45 percent and 39.33 percent, while percentage for doubtful answers was 47.92 percent and 45.68 Percent. : 'before' and 'after' nutrition education.

The scores for second question in this group 'before' nutrition education were 5.92 percent, 53.64 percent and 40.44 percent, for correct, incorrect and doubtful answers. After nutrition education, the figures were 13.03 percent, 47.38 and 37.90 percent, respectively. Before nutrition education the score for third question for correct, incorrect and doubtful answers were 9.14 percent, 44.84 percent and 46.02 percent respectively. After nutrition education scores were found to be 34.91 percent, 41.79 percent and 40.79 percent. Percentages for fourth question 'before' nutrition education were 6.26 percent, 44.5 percent and 49.24 percent respectively for correct, incorrect and doubtful answers, whereas for fifth question the answers for 'before' nutrition education were found to be 29.44 percent, 34.35 percent and 36.21 percent for correct, incorrect and doubtful

answer respectively. After nutrition education the scores were 31.39% for correct, 33.5% for incorrect and 35.19% for doubtful answers. For sixth question the answers were 9.47%, 46.02% and 44.5% for correct, incorrect and doubtful answers, for 'before' education. The results for 'after' nutrition education were 14.72%, 42.64% and 42.64% for correct, incorrect and doubtful answers respectively. For seventh question, the answers were found to be 13.71% for correct, 53.3% for incorrect and 32.99% for doubtful condition 'before' education. 'After' nutrition education the scores were found to be 24.87%, 46.02% and 23.6% for correct, incorrect and doubtful conditions respectively. (Table- 54)

Second group of questions was on "nutrition for vulnerable groups". The scores for 'before' and 'after' nutrition education for first question of this group were 3.05% and 7.78%, 50.42% and 47.38% and 46.53% and 43.15% for correct, incorrect and doubtful answers respectively. For second question the answers for 'before' and 'after' nutrition education were 4.74% and 10.32%, 47.22% and 43.82%, 47.56%, and 45.85% for correct, incorrect and doubtful answers respectively. The third question was about consumption of green leafy vegetables by pregnant lady. The scores were 32.15% for correct, 37.64% for incorrect and 36.21% for doubtful answers 'before' nutrition education. The answers after nutrition education were 39.36% correct, 27.58% incorrect and 35.07% for doubt. For fourth question 'before' education, 32.15% gave correct answers, 31.64% gave incorrect answers while 36.21% gave doubtful answers. 'After' nutrition education the percentage of answers for correct, incorrect and doubtful were 39.96%, 27.58% and 35.87% respectively.

Fifth question was about special diet of lactating mothers and 'before' nutrition education 16.58%, 45.01% and 40.78% gave correct, incorrect and doubtful answers respectively. 'After' nutrition education the answers were 18.87% for correct 42.64% for incorrect and 39.09% for doubtful condition.

For sixth question answers were 23.35%, 30.46% and 46.19% respectively for correct, incorrect and doubtful condition, 'before' education. 'After' nutrition education the answers were 27.92%, 27.61% and 44.67% respectively for correct, incorrect and doubtful conditions. Seventh question was about breast-feeding of infants, and 'before' nutrition education 67.51% answers were found to be correct, while only 14.04% and 18.44% answers were incorrect and doubtful. Infants were breast fed just after the birth. 'After' nutrition education the percentage were 71.51%, 11.67% and 16.75% for doubtful answers respectively.

For eighth question 9.14% correct, 46.87% incorrect and 43.99% doubtful answers were received 'before' nutrition education. 'After' nutrition education the answers were 15.74% for correct, 42.18% for incorrect and 42.13% were doubtful condition. For ninth question 57.36 %, 17.09 % and 25.55 % correct, incorrect and doubtful answers were received for ' before' nutrition education. 'After' nutrition education 67.34% correct, 14.09% incorrect and 18.61 % doubtful answers were received. For tenth question 15.4% correct, 46.87% incorrect and 37.73% doubtful answers were received 'before' nutrition education. 'After' nutrition education 25.38% correct, 42.81% incorrect and 31.81% doubtful answers were received. Answers for eleventh question "before " nutrition education were 56.34% correct, 25.04% incorrect and 18.61% doubtful. "After" nutrition education the answers were 67.51% correct 19.8% incorrect and 12.69% doubtful, respectively. For twelfth question 'before' and 'after' nutrition education, answers were 72.43% and 85.42%, for correct, 13.07% and 6.77% for incorrect and 14.04% and 7.61% for doubtful conditions respectively. For thirteenth question 'before' and 'after' nutrition education answers were 0.51% and 10.83% for correct. 60.57% and 52.45% for incorrect and 38.92% and 36.92% for doubtful answers. For fourteenth question 23.18% correct 42.98% incorrect and 33.84%

doubtful answers were received 'before' nutrition education. Answers 'after' nutrition education were 30.46%, 40.61% and 28.93% for correct, incorrect and doubtful conditions respectively. 16.75%, 37.06% and 52.59% correct, incorrect and doubtful answers were received respectively for 'before' nutrition education for fifteenth question. After nutrition education the percentage of correct answers was 48.54% with a markable difference and 30.96% and 30.29% for incorrect and doubtful answers respectively. For sixteenth question 'before' nutrition education the scores were 95.6% for correct, 1.35% incorrect and 3.05% for doubtful condition. After nutrition education scores were 33.84%, 1.01% and 2.2% for correct, incorrect and doubtful answers respectively. (Table - 55)

Third group of questions was on "Cooking Practices and Food Beliefs". This category consisted of 12 questions. The scores for first question "before" nutrition education were 2.54% 55.16% and 42.3% for correct, incorrect and doubtful answers respectively. 'After' nutrition education 10.15% correct, 34.35% incorrect and 38.58% doubtful answers were scored. For second question answers were 6.26% for correct, 48.73% for incorrect and 45.01% for doubtful conditions 'before' nutrition education. After nutrition education answers were 26.9%, 39.25% and 33.84% for the same categories. For third question correct answers for 'before' and 'after' nutrition education were 17.77% and 35.36%. Incorrect answers were 45.18% and 34.86% and doubtful answers were 37.06% and 29.78% respectively. 'Before' nutrition education 36.72% correct. 32.66% incorrect and 31.62% doubtful answers were received for fourth question. "After" nutrition education 46.35% correct, 26.36% incorrect and 26.9% doubtful answers were received. For fifth question 40.95% and 54.48% correct, 34.01% and 26.4% incorrect and 25.04% and 19.18% doubtful answers were received. For sixth question 'before' nutrition education 3.05% correct, 41.96% incorrect, and 54.99% doubtful answers were

received. 'After' nutrition education 9.98% correct, 37.56% incorrect and 52.45% doubtful answers were received. For seventh question, 25.04% and 31.93% correct, 40.61% and 35.19 % incorrect and 34.35 % and 32.83 % doubtful answers were received, 'before' and 'after' nutrition education. 'Before' nutrition education 2.71% correct, 59.22% incorrect and 38.07% doubtful answers were received for eighth question. 'After' nutrition education 21.15% correct, 43.65% incorrect and 35.19% doubtful answers were scored. For ninth question 53.47% and 65.99% correct, 17.77% and 13.71% incorrect and 28.76% and 20.3% doubtful answers were scored for 'before' and 'after' nutrition education. For question number ten, the answers 'before' nutrition education were 30.12% 29.95% and 27.58% for correct, incorrect and doubtful conditions respectively. 'After' nutrition education 29.44% correct, 28.76% incorrect and 25.72% doubtful answers were received. For eleventh question 41.45%, 30.46% and 28.09% answers were obtained for correct, incorrect and doubtful conditions respectively. For question number twelve 'before' nutrition education 3.55% correct, 63.79% incorrect and 32.66% doubtful answers were obtained. 'After' nutrition education, 5.92%, 62.27% and 31.81% scores were obtained for correct, incorrect and doubtful answers respectively. (Table - 56)

Fourth set considered questions on "Immunization". It had 5 questions. For first question 2.54%, 43.15% and 54.31% correct, incorrect and doubtful answers were received respectively, 'before' nutrition education. 'After' nutrition education 6.77% correct, 40.1% incorrect and 53.13% doubtful answers were received. For second question 7.61%, 48.56% and 43.82% answers were received for correct, incorrect and doubtful answers respectively. 'After' nutrition education 10.49% correct, 47.04% incorrect and 42.47% doubtful answers were received. 'Before' nutrition education 0.34% correct, 51.54% incorrect and 48.22% doubtful answers were received for third question. 'After' nutrition

education 2.71% correct, 50.08% incorrect and 47.21% doubtful answers were received. 'Before' and 'after' nutrition education the answers for fourth question were 2.2% and 7.61%, 51.1% and 48.22% and 29.78% and 44.16% for correct, incorrect and doubtful answers respectively. For fifth question 1.13% correct, 32.32% incorrect and 49.58% doubtful answers were received 'before' nutrition education. 'After' nutrition education 6.26% correct, 46.87% incorrect and 46.87% doubtful answers were received. (Table-57)

Knowledge regarding health and 'hygiene' was very poor. This was judged by a set of questions. For first question 10.83%, 39.42% and 49.75% correct, incorrect and doubtful answers were received 'before' nutrition education. 'After' nutrition education 24.36% correct, 35.02% incorrect and 40.61% doubtful answers were obtained. In second question 'before' nutrition education 6.09% correct, 44.16% incorrect and 49.75% doubtful answers were received. 'After' nutrition education 16.41%, 36.35% and 47.04% correct, incorrect and doubtful answers were received. 'Before' and 'after' nutrition education 1.35% and 7.61%, 48.22% and 45.85 % and 50.42% and 46.53% correct, incorrect and doubtful answers were received respectively for third question. 'Before' and 'after' nutrition education, 2.54% and 18.78%, 49.91% and 44.84% and 47.55% and 36.38% correct, incorrect and doubtful answers were received for fourth question. For fifth question 29.44% correct, 32.83% incorrect and 37.73% doubtful answers were received 'before' nutrition education. 'after' nutrition education 40.1% correct, 26.4% incorrect and 33.5% doubtful answers were received. 'Before' nutrition education 1.52% correct, 50.25% incorrect and 48.56% doubtful answers were scored for sixth question. 'After' nutrition education 9.98% correct, 43.65% incorrect and 46.53% doubtful answers were scored. For seventh question. 4.4% correct, 45.35% incorrect and 50.25% doubtful answers were recorded, 'before' nutrition education. 'After' nutrition education 13.87%, 47.04% and 39.09% correct,

incorrect and doubtful answers were recorded respectively. For question number eight 'before' nutrition education no correct answers were received while 60.74% incorrect and 39.25% doubtful answers were recorded. 'After' nutrition education 3.21% correct, 59.73% incorrect and 37.06% doubtful answers were scored. For question number nine 'before' nutrition education 0.34% correct, 50.42% incorrect and 47.55% doubtful answers were recorded. 'After' nutrition education 4.23% correct, 48.9% incorrect and 46.87% doubtful answers were recorded. (Table-58)

The last category of the questions were on 'environmental sanitation' which had seven questions. 'Before' nutrition education, answers for first question were 0.85% correct, 46.02% incorrect and 53.13% doubtful. 'After' nutrition education 4.91%, 44.16% and 50.93% answers were received for correct, incorrect and doubtful conditions respectively. For second question answers for 'before' and 'after' nutrition education were 1.01% and 8.29%, 48.56% and 44.5% and 51.44% and 47.21% for correct, incorrect and doubtful conditions respectively. 9.98% correct, 43.82% incorrect and 46.19% doubtful answers were recorded for third question, 'before' nutrition education. 'After' nutrition education 25.21% correct, 37.39% incorrect and 37.39% doubtful answers were received. For fourth question 2.2% and 9.14% correct, 48.22% and 44.67% incorrect, and 49.58% and 46.14% doubtful answers were recorded for 'before' and 'after' nutrition education respectively. For fifth question 1.69% correct, 49.41% incorrect and 48.9% doubtful answers were received 'before' nutrition education. 'After' nutrition education 10.51%, 42.64% and 47.21% correct, incorrect and doubtful answers were received. For sixth question 1.35% and 8.63% correct, 49.58% and 44.33% incorrect and 49.07% and 47.04% doubtful answers were received 'before' and 'after' nutrition education. For seventh question 2.17% correct, 52.45% incorrect and 42.47% doubtful answers were recorded 'before' nutrition education. 7.95% correct, 49.58% incorrect and 42.47% doubtful answers were received after nutrition education. (Table-59)

Mean of 'before' nutrition education score was 76.56% while 'after' nutrition education it was 88.07%. Range was found to be between 38-76, 'before' nutrition education and 49-112.5 'after' nutrition education. (Table-60)

As compared to Kamar tribe of Raipur district the knowledge regarding "Basics of Health and Nutrition of Korwas" 'before' and 'after' nutrition education was 12.18% and 18.44% respectively for right answers. The data for Kamars were 32.45% and 48.31% for the same. Thus the Kamars seem to be better in this respect than the Hill Korwas. The knowledge for the second set of questions for 'vulnerable groups of Korwas' 'before' and 'after' nutrition education was 21.17% and 31.98 respectively for right answers. The data for Kamars was 20.13% and 51.46% for the same. Thus the Kamar seem to be better in this respect also than the Hill Korwas.

The knowledge regarding "Cooking practices and food beliefs", the correct answers for Korwas was 30.67% and 31.7% for 'before' and 'after' nutrition education respectively. The data for Kamars was 45.45% and 62.29% for the same. Thus the Kamars seem to be better in this respect also than the Hill Korwas.

As compared to Kamars, the knowledge regarding "Immunization" of Korwas 'before' and 'after' nutrition education was 2.84% and 6.7% respectively for right answers. The data for Kamars was 3.95% and 48.65 for the same. The results shows that the knowledge of immunization of Kamars was better than the Hill Korwas.

The knowledge regarding "health and hygiene" of Kamars for right answers were 49.21% and 64.29% for 'before' and 'after' nutrition education respectively. The data for Hill Korwas were 6.28% and 16.34% for same, which is lower than the Kamars.

The knowledge regarding "Environmental Sanitation" before' and 'after' nutrition edu-

education was 2.78% and 10.61% respectively for the right answers. The data for Kamars was 62.41% and 73.6% for the same. Thus the Kamars seem to be better in this respect than the Hill Korwas. (Table-61)

The knowledge of Hill Korwas regarding immunization, health and hygiene and environmental sanitation was very poor. The use of herbal medicines was in practice. The knowledge about vaccines and antibiotics was found to be very poor. The chief causes of their unawareness was poverty, socioeconomic culture and deep rooted customs and lack of primary health centres.

Hygienic condition of this tribe was found to be unsatisfactory. Daily brushing and bathing practices were not appropriate. According to Korwas bathing means throwing water on their body. Ponds or 'Dhondies' are for all kinds of works like bathing, drinking water, animal bathing etc. Use of soap or detergent was quite uncommon. 'Datone' of Babool or any other tree are used for cleaning teeth. Habit of brushing teeth in children was not developed. This is the main reason of foul breath from their mouth.

Hill Korwa tribe mostly keep some of their domestic animal inside the house by their side which produces so many diseases. The same condition was found in Kamar tribe of Raipur district also.

There are no food fads found among the Hill Korwas. They take all kinds of food during pregnancy and ^{ta}lactation periods. Some women avoid jack fruit during pregnancy period because they believe that if it is eaten, the child's foot will bear many cracks after birth. Only after delivery they gave rice and turmeric to mother for three days. Cholestrum feeding practice was prevalent among the Hill Korwas.

As compared to Lanjia Saoras of Orissa, Hill Korwas knowledge of nutrition, immunization and hygiene is not satisfactory. Similar results were observed amongst Bhairas of Patalkot.³²⁵

In a study of Baigas it has been observed that Baigas are also unclean tribe. This has led to a high incidence of scabies in this area. They lived with their domestic animals like pig, hen, goat, inside the house by their side. This condition is responsible to generate the mosquitoes and flies which cause a number of diseases among them.¹⁰⁰

IV CONCLUSION

The result after nutrition education shows good grasping power of tribe. During survey nutrition education was given to them about food, benefit of balanced and mixed diet, right cooking practices, nutrition for vulnerable groups, importance of milk, green leafy vegetables, care during illness, etc. The concepts of hygiene and sanitation were also made clear during nutrition education. Information about immunization, sanitation, personal hygiene were given to them.

Methods used in nutrition education are very important, short term nutrition education was used in present study using charts, posters, and lectures. Eagerness towards nutrition education was seen in the entire course of study. Hill Korwas wanted to know about immunization and right cooking practices. They also changed their attitude towards locally available food supplements.

But it is not necessary that the encouraging picture will be the same after some time and the changed dietary practices would be sustained long enough. So it is necessary to impart them long term nutrition education.

Nutrition education is not necessary for improving their health status but is also necessary for them to change their living style in changed environment.

The study has also brought out the need for intensive orientation of the primary school teachers on the elementary principles of food and nutrition. The involvement of tribal women as anganwadi workers will be effective and implementation of several programmes run through anganwadi will directly reach to the tribal people.

TABLE - 54
KNOWLEDGE REGARDING "BASICS OF HEALTH & NUTRITION" OF THE
SUBJECTS "BEFORE" & "AFTER" NUTRITION EDUCATION

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	67 (11.34)	85 (14.38)	242 (40.95)	236 (39.93)	282 (47.92)	270 (45.68)
2	35 (5.92)	77 (13.03)	317 (53.64)	280 (47.38)	239 (40.44)	224 (37.9)
3	54 (9.14)	101 (34.71)	265 (44.84)	247 (41.79)	272 (46.02)	245 (40.78)
4	37 (6.26)	76 (12.86)	263 (44.5)	241 (40.78)	291 (49.24)	280 (47.38)
5	174 (29.44)	185 (31.3)	203 (34.35)	198 (33.5)	214 (36.21)	208 (35.19)
6	56 (9.47)	87 (14.72)	272 (46.02)	252 (42.64)	263 (44.5)	252 (42.64)
7	81 (131.71)	147 (24.87)	315 (53.3)	272 (46.02)	195 (32.99)	169 (28.6)
Total	504 (12.18)	758 (18.32)	1877 (45.37)	1726 (41.72)	1756 (42.45)	1648 (39.86)

Percentage are given in paranthesis.

TABLE - 55

**KNOWLEDGE REGARDING "NUTRITION FOR VULNERABLE GROUP" OF
THE SUBJECTS 'BEFORE' AND 'AFTER' NUTRITION EDUCATION**

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	18 (3.05)	46 (7.78)	298 (50.42)	280 (47.38)	275 (46.53)	255 (43.15)
2	28 (4.74)	61 (10.32)	282 (47.72)	259 (43.82)	201 (47.56)	271 (45.85)
3	29 (4.91)	92 (15.51)	347 (58.71)	296 (50.08)	215 (36.38)	203 (34.35)
4	190 (32.15)	236 (39.96)	187 (31.64)	163 (27.58)	214 (36.21)	212 (35.87)
5	98 (16.58)	108 (18.27)	266 (45.01)	252 (42.64)	241 (40.78)	231 (39.09)
6	138 (23.55)	165 (27.92)	180 (30.46)	162 (27.61)	273 (46.19)	264 (44.67)
7	399 (67.51)	423 (71.57)	83 (14.04)	69 (11.67)	109 (18.44)	99 (16.75)
8	54 (9.14)	93 (15.74)	277 (46.87)	249 (42.13)	260 (43.99)	249 (42.13)
9	339 (57.36)	398 (67.34)	101 (17.09)	83 (14.04)	151 (25.55)	110 (18.61)
10	91 (15.4)	150 (25.38)	227 (46.87)	253 (42.81)	223 (37.73)	188 (31.81)
11	333 (56.34)	399 (67.51)	148 (25.04)	117 (19.8)	110 (18.61)	75 (12.69)
12	431 (72.43)	506 (85.42)	77 (13.03)	40 (6.77)	83 (14.04)	45 (7.61)
13	3 (0.51)	64 (10.83)	358 (60.51)	310 (52.45)	230 (38.92)	217 (36.72)
14	137 (23.18)	180 (30.46)	254 (42.98)	240 (40.61)	200 (33.84)	171 (28.93)
15	99 (16.75)	287 (48.56)	219 (37.06)	183 (30.96)	312 (52.79)	179 (30.29)
16	565 (95.6)	200 (33.84)	8 (1.35)	6 (1.01)	18 (3.05)	13 (2.2)
Total	2952 (31.22)	3408 (36.03)	3312 (35.02)	2962 (31.32)	3115 (32.95)	2782 (29.42)

Percentage are given in paranthesis.

TABLE - 56
KNOWLEDGE REGARDING "COOKING PRACTICES AND FOOD BELIEFS"
OF SUBJECTS "BEFORE" & "AFTER" NUTRITION EDUCATION

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	15 (2.54)	60 (10.15)	326 (55.16)	203 (34.35)	250 (42.3)	228 (38.58)
2	37 (6.26)	159 (26.9)	288 (48.73)	232 (39.25)	266 (45.01)	200 (33.84)
3	105 (17.77)	209 (35.36)	267 (45.18)	206 (34.86)	219 (37.06)	176 (29.78)
4	217 (36.72)	275 (46.35)	193 (32.66)	159 (26.36)	181 (31.62)	159 (26.9)
5	242 (40.95)	322 (54.48)	201 (34.01)	156 (26.4)	148 (25.04)	113 (19.12)
6	18 (3.05)	59 (9.95)	248 (41.96)	22 (37.56)	325 (54.99)	310 (52.45)
7	148 (26.04)	189 (31.98)	240 (40.61)	208 (35.19)	203 (34.35)	194 (32.83)
8	16 (2.71)	125 (21.15)	350 (59.22)	258 (43.65)	225 (38.07)	208 (35.19)
9	316 (53.47)	390 (65.94)	105 (17.77)	81 (13.71)	170 (28.76)	120 (20.3)
10	178 (30.12)	174 (29.44)	177 (29.95)	170 (28.76)	103 (27.58)	152 (25.72)
11	245 (41.45)	271 (45.85)	180 (30.46)	166 (28.09)	166 (28.09)	154 (26.06)
12	21 (3.55)	35 (5.92)	377 (63.79)	368 (62.27)	193 (32.66)	188 (31.81)
TOTAL	1558 (21.96)	2268 (31.98)	2952 (41.62)	2421 (34.14)	2509 (35.73)	2202 (31.05)

Percentage are given in paranthesis.

TABLE - 57
KNOWLEDGE REGARDING "IMMUNIZATION" OF SUBJECTS "BEFORE" &
"AFTER" NUTRITION EDUCATION

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	15 (2.54)	40 (6.77)	255 (43.15)	237 (40.1)	321 (54.31)	314 (53.13)
2	45 (7.61)	62 (10.49)	287 (48.56)	278 (47.04)	259 (43.82)	251 (42.47)
3	2 (0.34)	16 (2.71)	304 (51.44)	296 (50.08)	285 (48.22)	279 (47.21)
4	13 (2.2)	45 (7.61)	302 (51.1)	285 (48.22)	176 (29.78)	261 (44.16)
5	7 (1.18)	37 (6.26)	191 (32.32)	277 (46.87)	293 (49.58)	277 (46.87)
TOTAL	82 (2.77)	200 (6.77)	1339 (45.31)	1373 (46.46)	1334 (45.14)	1382 (46.79)

Percentage are given in paranthesis.

TABLE - 58
KNOWLEDGE REGARDING "HEALTH & HYGIENE" OF THE SUBJECTS
"BEFORE" & "AFTER" NUTRITION EDUCATION

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	64 (10.33)	144 (24.36)	233 (39.42)	207 (35.02)	294 (49.75)	240 (40.61)
2	36 (6.09)	97 (16.41)	261 (44.16)	216 (36.55)	244 (49.75)	278 (47.04)
3	8 (1.35)	45 (7.61)	285 (48.22)	271 (45.85)	298 (50.42)	275 (46.53)
4	15 (2.54)	111 (18.78)	295 (49.91)	265 (44.84)	281 (47.55)	215 (36.38)
5	174 (29.44)	237 (40.1)	194 (32.82)	156 (26.4)	223 (37.73)	198 (33.5)
6	9 (1.52)	59 (9.98)	297 (50.25)	258 (43.65)	287 (48.56)	275 (46.53)
7	26 (4.4)	82 (13.87)	268 (45.35)	278 (47.04)	297 (50.25)	231 (39.09)
8	-	19 (3.21)	359 (60.74)	353 (59.73)	232 (39.25)	219 (37.06)
9	2 (0.34)	25 (4.23)	298 (50.42)	289 (48.9)	281 (47.55)	277 (44.87)
Total	334 (62.28)	869 (16.34)	2490 (46.81)	2242 (41.15)	2487 (46.76)	2208 (41.58)

Percentage are given in paranthesis.

TABLE - 59
KNOWLEDGE REGARDING " ENVIRONMENTAL SANITATION" OF
SUBJECTS "BEFORE" & "AFTER" NUTRITION EDUCATION

QUESTION NO.	CORRECT		INCORRECT		DOUBT	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
1	5 (0.85)	29 (4.91)	272 (46.02)	261 (44.16)	314 (53.13)	301 (50.93)
2	6 (1.01)	49 (8.29)	287 (48.56)	263 (44.5)	304 (51.44)	279 (47.21)
3	59 (9.98)	144 (25.21)	234 (43.82)	221 (37.39)	273 (46.19)	221 (37.39)
4	13 (2.2)	54 (9.14)	285 (48.22)	264 (44.67)	293 (49.58)	273 (46.19)
5	10 (1.69)	60 (10.51)	292 (49.41)	252 (42.64)	289 (48.9)	274 (47.21)
6	8 (1.35)	51 (8.63)	293 (49.58)	262 (44.33)	290 (49.07)	278 (47.04)
7	15 (2.7)	47 (7.95)	310 (52.45)	293 (49.58)	265 (41.74)	251 (42.47)
Total	117 (2.83)	439 (10.61)	1998 (48.30)	1816 (43.65)	2028 (49.02)	1882 (45.49)

Percentage are given in paranthesis.

TABLE - 60
MEAN SCORES (+ SD) OF THE SUBJECTS "BEFORE" AND "AFTER"
NUTRITION AND HEALTH EDUCATION OF HILL - KORWAS

CONTENT	BEFORE NUTITION EDUCATION	AFTER NUTRITION EDUCATION
MEAN	76.556	88.07
SD	± 7.28	± 7.89
RANGE	38 - 96	49 - 112.5

TABLE - 61

DATA IN PERCENT SHOWING RESPONSE OF SUBJECTS TO CERTAIN NUTRITION AND HEALTH CONCEPT "BEFORE" AND "AFTER" NUTRITION EDUCATION AS COMPARED TO KAMAR TRIBE OF RAIPUR.

Group Name	CORRECT			INCORRECT			DOUBT					
	BEFORE	AFTER		BEFORE	AFTER		BEFORE	AFTER				
	Hill Korwa	Kamar	Hill-Korwa	Kamar	Hill-Korwa	Kamar	Hill Korwa	Kamar	Hill-Korwa	Kamar		
Basics of health & nutrition	12.18%	32.45%	18.44%	48.31%	45.37%	32.99%	41.72%	8.96%	42.45%	34.55%	39.84%	42.72%
Nutrition for vulnerable group	21.17%	20.18%	31.98%	51.46%	41.62%	43.35%	34.22%	4.05%	35.38%	28.46%	31.05%	44.47%
Cooking practices & food beliefs	30.67%	45.45%	37.1%	62.29%	35.54%	18.99%	31.94%	3.79%	33.79%	35.55%	30.96%	33.91%
Immunization	2.84%	23.95%	6.77%	48.6%	48.7%	35.66%	46.46%	4.54%	48.46%	40.38%	46.77%	46.85%
Health & hygiene	6.28%	49.21%	16.34%	64.29%	46.96%	11.06%	42.17%	4.19%	46.76%	39.76%	41.49%	31.51%
Environmental sanitation	2.78%	62.41%	10.61%	73.6%	48.3%	8.3%	43.9%	4.02%	48.92%	29.3%	45.49%	22.37%