

Dietary Pattern of Expectant Mothers: A Study from the Rural Area of Balasore District, Orissa

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ABSTRACT In every community pregnancy has been regarded as the most welcome event of successful womanhood, however to remain barren is considered as a 'curse'. Every mother would like her pregnancy to be one without any problem. A healthy mother can produce a healthy baby. The diet of pregnant mother is one single factor, which directly affects the outcome of pregnancy. The present study was conducted in 4 villages of Balasore district, Orissa. Data was collected with the help of structured interview schedule. 50 samples were selected using simple random sampling method. The study attempts to explore the dietary pattern taboos and beliefs regarding dietary habits in relation to their socio economic condition and finally suggest some measures of rectification for improvement in their diet pattern.

INTRODUCTION

Expectant mothers constitute the most vulnerable segment from the nutritional point of view. Pregnancy is a period of physiological changes and high nutritional demands. If maternal reserves are adequate, the fetus is well protected. When nutritional status is poor and nutritional intake is less, then hormonal adjustment and maternal reserve is jeopardized. Nutritive value of the diet of pregnant women is one of the important factors, which would directly affect the outcome of pregnancy (Purohit and Sharma, 1973). Many food taboos prevalent in the society either allow or prohibit the expectant mothers to consume some food (Agrawal et al., 1992). Food habits and customs differs from culture to culture. The ill effects of malnutrition during pregnancy are well recognized. It can be avoided by adequate intake of nourishing foods.

The present paper highlights some aspects of dietary pattern of expectant mothers in the rural area of Balasore district of Orissa.

OBJECTIVES

1. To understand the demographic features and socio economic status of the respondents.
2. To find out the food habits of the respondents.
3. To observe the relation between family income/respondents education and age with common clinical features of the respondents.
4. To assess the nutritional status of the preg-

nant women with the help of anthro-pometric measurements.

MATERIALS AND METHODS

Balasore district is located on the East Coast of Orissa. On the basis of population situation it ranks 4th place in Orissa. 50 expectant mothers of four villages such as: Gadiamal, Nuagaon, Panchagarh and Seragarh from Remuna Block constitute as our sample. Those women who were pregnant at the time of data collection were included in the sample. Information regarding their age, education, husband occupation, family structure, family income, type of work, foods habits, special foods taken, foods avoided during pregnancy, illness and medical checkup, clinical features etc. were collected through structured pretested interview schedule. Respondent's height in centimeter and weight in kilogram were also collected with the help of anthropometric rod and weighing machine. 24 hours recall method for one day (Wahab and Sakode 1994: 177 and Reddy et al 1994: 235) was used to elicit information on the daily food intake of the respondents. The Sample was limited to 50 only. It was not possible to weigh the exact amount of food during the interview period because of cultural barriers.

RESULTS AND DISCUSSION

Demographic and Socio Economic Features: Of the total respondents, one third (34%) belonged to the age group of 21- 25 years and

equal percentage (28%) of respondents belonged to both the age group of up to 20 years and 26 to 30 years respectively. The rest 10 percent are of 31 years and above. Caste distribution of the respondents indicates that only 18% belonged to high caste like Brahmin, Kshyatriya and Karan. 40% belonged to middle caste i.e. caste Hindus like Khandayat, Teli, Chasa and Gouda, where as majority (42%) belonged to Schedule Caste and Tribe. Family structure of the respondents indicates that an over whelming percentage (70%) of respondents belonged to Joint family and a little less than one third (30%) were from nuclear family.

Educational background of the respondents revealed that 22% are illiterate. Majority (44%) had middle school education. 24% had completed their high school education. Very few respondents (10%) could step into college education.

Income distribution of the respondents indicated that maximum (68%) respondents belonged to middle income group (Rs.1501/-Rs.3000/-) where as low-income group (up to Rs. 1500/-) constituted 14 percent and high income group (Rs. 3001/-and above) represented 18 percent. (Table1).

Table 2: Income distribution of the respondents

	Number	Percent
1.1 Age		
Up to 20	14	28
21-25	17	34
26-30	14	28
31 & Above	5	10
1.2 Caste		
High	9	18
Middle	20	40
SC&ST	21	42
1.3 Family Structure		
Nuclear	15	30
Joint	35	70
1.4 Income		
Up to 1500/-	7	14
1501-3000/-	34	68
3001/- and above	9	18
1.5 Education		
Illiterate	11	22
Middle	22	44
High school	12	24
+2 and above	5	10

Dietary Pattern: Of the total sample an over whelming percentage (84%) of respondents were non vegetarian. Only few were vegetarian (16%). Majority of mothers (72%) did not observe any kind of food restriction or taboos during

pregnancy. On the other hand more than one fourth of the respondent (28%) observed some sort of food restriction during pregnancy. These restricted food items were spices chillies, sour items, egg, meat, fish. In addition banana, black berries, onion, mushroom coconut water were also restricted. The general concept was that these food items would either cause cold and cough to the mother or would lead to abortion.

The respondents food intake was observed to be stereotype. They were taking rice either for 3 to 4 times a day with a meager amount of dal and/ or curry or vegetable fry. Foods like fish, meat milk was taken very occasionally.

Intake of different foods per day by the pregnant women is given in table 2. Consumption of cereals, pulses, roots and tubers, leafy vegetables, other vegetables fats and oil, sugar, milk, milk products and fruits were less than the values of the recommended dietary allowances. (RDA) of ICMR. The result shows that the diet was not able to meet the requirements of expectant mothers inadequate amount. Similar observations were reported by others also (Nath and Geervani 1978: 422-428; Kaur et al 1982: 50-58).

Table 2: Average food intake of pregnant women

Food stuff (gm)	Recommended dietary allowance	Mean intake of the respondents
Cereals	475	296
Pulses	60	36
Roots and tubers	50	40
Leafy vegetables	100	85
Other vegetables	40	36
Fats and oils	25	18
Sugar and jaggery	30	20
Milk and milk products	250	78
Fruits	30	12

Clinical Features: From Table 3 it is evident that maximum number of respondents (72%) experienced hair problems like dull and dry hair, lack of natural shine, thin and flag sign. 18% respondents suffered from discolouration over the cheeks and under the eyes.

Eye problems like pale conjunctiva and dryness (Xerosis) of eye membranes were observed few among (10%) respondents while lips problems like angular scar was observed among 18% respondents. 12% respondents complained for swollen, sore tongue. 28% respondents had abnormal teeth with carries and gray spots (flurosis) while about one third (32%)

Table 3: Clinical observation of the respondents

Characteristics	Normal		Abnormal	
	Number	%	Number	%
Hair	14	28	36	72
Face	41	82	9	18
Eye	45	90	5	10
Lips	41	82	9	18
Tongue	44	88	6	12
Teeth	36	72	14	28
Gum	34	68	16	32
Skin	39	78	11	22

Total N= 50 (100%)

reported about bleeding and spongy gums. Dry skin and follicular hyper Keratosis (Sand paper feeling of skin) was observed among 22%. Besides hair problem majority respondents seemed to be normal. Devdas et al (1978: 31-37) also observed similar results among the poorly fed expectant mothers.

Association of 4 clinical features i.e. hair teeth, gum and skin were observed with respondents age education and income. Figure 1 indicate distribution of clinical features according to the age of the respondents. It was observed that hair problem was more prevalent (26%) among the young respondents of 21 to 25 years compared to other age group. This may be due to tension of child bearing and lack of proper nutrients. It was less (10%) among the respondents of higher age group. Teeth problems like

carries and mottled enamel were equally distributed (8% each) among the respondents of all age of group except the elderly group (i.e. 31 year and above).

Gum problem was observed to be maximum (14%) among the respondents of 26 to 30 years of age compared to other age group. Skin problem was found to be maximum (8%) in the age group of 21 to 25 years.

Figure 2 reveals association of family income with respondents clinical features. It indicates that maximum disorder in each clinical feature were prevalent among the respondents of middle-income group. (Rs. 1501/- 3000/-) compared to other income categories. It is 52% incase of hair problem, 20% in case of teeth problem, 34% incase of gum problem, 20% in case of skin problem. The reasons may be attributed to low intake of vitamins and minerals as they spent much of there income on education of children, clothing and others items. In addition to this ignorance may also be another cause.

Figure 3 represents distribution of clinical features according to the education of the respondents. Maximum (44%) hair problems were observed among the middle school educated and this problem was not found among the respondents educated up to +2 and above. This trend is observed with teeth problem also. In case of gum and skin problems illiterate women had more problems and those having education up to +2 and above had no problems.

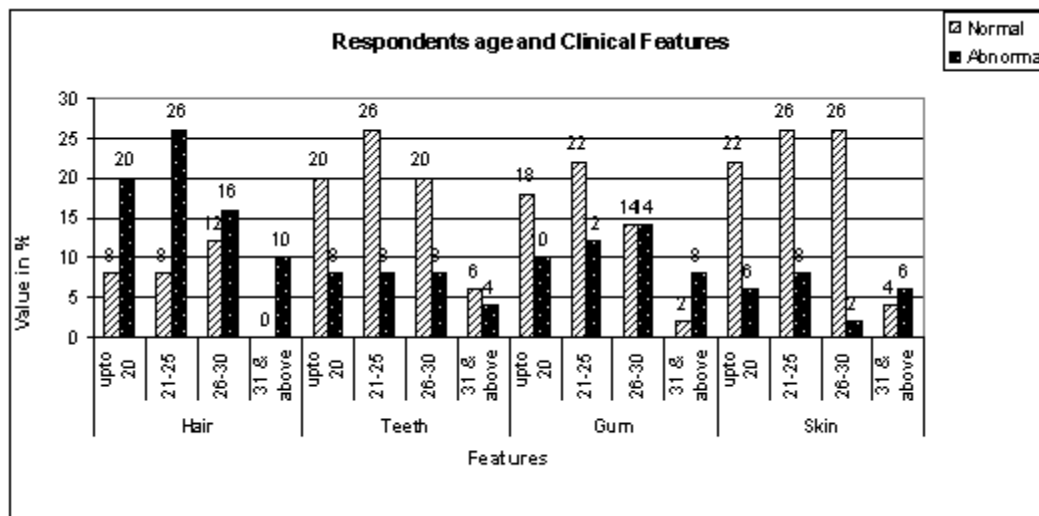


Fig. 1. Distribution of clinical features according to the age of the respondents

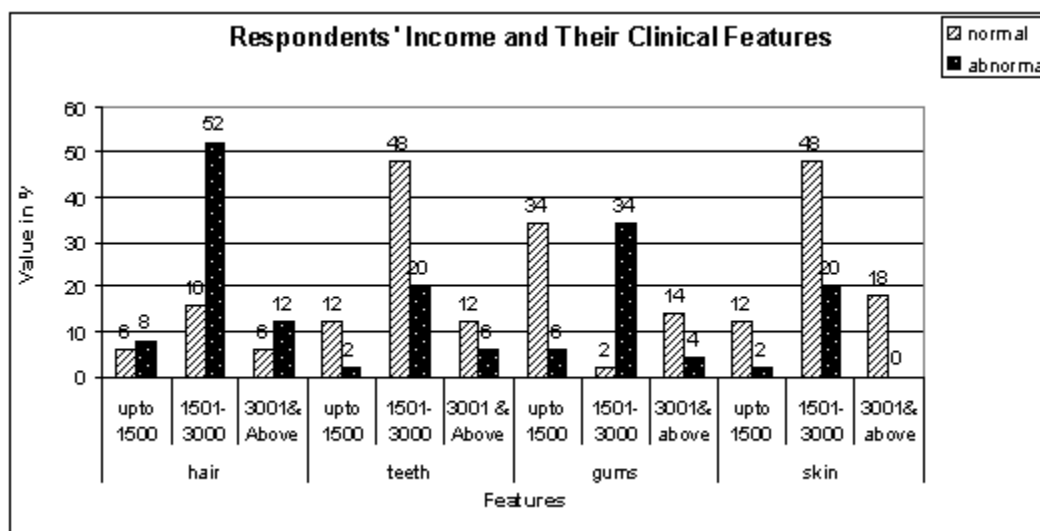


Fig. 2. Association of family income with respondents clinical features

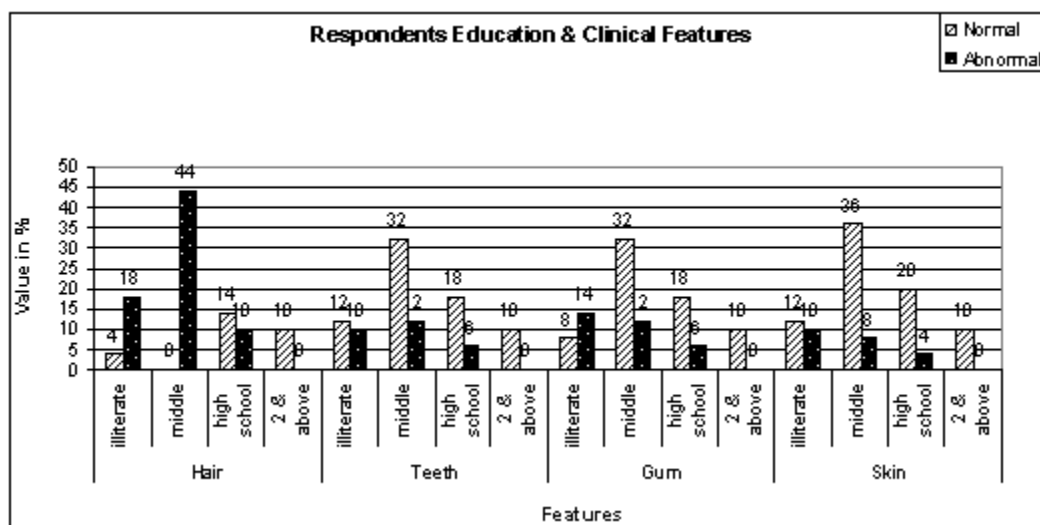


Fig. 3. Distribution of clinical features according to the education of the respondents.

From this figure we are able say that education has positive impact in the health care of the pregnant women.

Finally it is found that respondents dietary intake through out the reproductive period was found to be unsatisfactory. Leafy vegetable and other vegetables were consumed but milk and animal foods were rarely consumed. Mothers had food restriction due to taboos and beliefs.

Because of small sample size of the study, no

particular trend is observed in some aspects. But nutrition in pregnancy has assured importance because of its implication of well being of the mother. Proper food intake is very essential in this period.

Hence nutrition education programmes should be started in the villages. Girls, should be given school and college education. Income generation scheme among women should start in the rural area to make the women economi-cally

independent by which their status can be improved. Health education programme be popularized among the people and more particularly among the women and finally study of the dietary pattern and nutritional status should be conducted at intervals to monitor the impact of health and nutrition programme.

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