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ANALYSIS OF NUTRITION AND REPRODUCTIVE HEALTH STATUS OF TRIBAL WOMEN IN KANCHEEPURAM DISTRICT

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Abstract

Indian tribal are a heterogeneous group; most of them remain at the lowest stratum of the society due to various factors like geographical and cultural isolation, low levels of literacy, primitive occupations, and extreme levels of poverty. The issues of women's health in general and reproductive health in particular were the neglected areas in the health care. Reproductive health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and process. With this backdrop this paper brought to focus by a case study of nutrition and health status of Irular tribal women in two villages of Kancheepuram district. A total of 60 tribal women were interviewed using pretested interview schedule. Nutritional statuses of 60 tribal women were assessed by diet- survey, anthropometry and, Diet-survey carried out by the 24 hours recall method and reproductive health. A majority of them had health and nutrition problems such as anemia, malnutrition, vitamin deficiency. This study also analyse the awareness on health and nutrition and is brought to light. The findings revealed that majority of tribal women are under nourished, and young tribal women in pre-pregnancy state would not have optimum level status therefore there is a need to provide nutrition supplements, create awareness on nutrition supplements and nutritional educational programme to the irular tribal women.

Keywords: *Nutrition, Tribal Women, Reproductive Health Status, Body Mass Index, Anemia, Malnutrition.*

Introduction

Nutrition is one of the main environmental issues responsible for the maintenance of health and physical fitness. Rural women constitute an overwhelming majority of women in developing countries. The rural tribal female population is 394.11 lacks in India , 1.84 lacks in Tamilnadu and 0.14 lacks in Kancheepuram district (Rural Development Statistics - (2009-10) and Census, 2011). Women are doing major and multiple roles in a family such as mothers, housekeepers and also participation in family revenue as wage earners, agricultural procedures, nutrition providers etc. women are playing the important role in the acquisition of food including preparation, storage and distribution. Anyhow they are affected by malnutrition and form a group highly vulnerable to morbidity and mortality due to under nutrition. All society peoples are suffered in malnutrition, the lack of nutrition are commonly affected to women from their infant and continue their entire life. (Chatterjee – 1990 ; Desai, 994). The working efficiency and family welfare are strongly affected by women health problem due to short time rest than men and degradation of environmental also increasing women's workload (Mariamma and Janet, 2000). The household level is very important role to understand the nutritional patterns of women and assess if their nutritional requirement are met. The data must be collected periodically it will help to agricultural strategies to bridge the gap could be planed (Chittemma Rao, 1993). The rural women don't have sufficient in nutrition and healthcare due to several factors, particularly in socio economic status. According to smaller scale studies the young girls and women are strongly affected by micronutrient deficiencies and anemia. The main reason such as poor nutrition, poor quality of food, etc.., from this we can understand that they are suffer by macronutrient deficiency cum micronutrient deficiency. (Kanani and Poojara, 2000; Baby,2000). The nutrition transition in low income countries is being recognized as an emerging crisis due to changing health profiles. While the problem of under nutrition is not mitigated to a large extent, it coexists along with over nutrition in countries such as India. Chronic diseases are becoming major contributors of death and disability adjusted life years.

The anemia affected the women several ways including increased of maternal morbidity and lowered

physical activity, strongly affected in mental concentration and productivity. The women work capacity reducing and weakness body increasing by mild anemia. Due to malnutrition the iron deficiency anemia is mostly detrimental effects on the health of women and may be the reason for maternal mortality and prenatal mortality. Anemic affection initially finds out will help to avoid complication in delivery period and improve child development. In Tamil Nadu 57% of women have some degree of anemia i.e. 37% of women are mildly anemic, 16% are moderately anemic and 4% are severely anemic. The older women prevalence of anemia is slightly lesser than younger women less than age 25.The rural women having little higher (59%) than urban women (52%).Due to the mortality pattern and related malnutrition for children and pregnant women, the government is requested to launching of nutrition intervention programmes.

An Overview of women's Reproductive Health Status

Generally developed countries having very less maternal mortality than developing countries for example, India is one of the developing country having Maternal Mortality Ratio decline in MMR estimates in 2011-12 over 2007-09, for India: 212 form 254 a fall about 16%(India, Sample Registration system 2011) whereas developed countries have achieved low as 10. Developing countries having 9 out of 10 maternal deaths particularly India shares one fourth of death in worldwide. The socio-economic, nutritional and maternal health care in the communities are generally measured by the MMR drop from 212 deaths per 100,000 live births in 2007-09 to 178 in 2010-12, India is after the target of 103 deaths per live births to be achieved by 2015 under the United Nations-mandated Millennium Development Goals (MDGs). The following states are having high level MMR, Rajasthan, Madhya Pradesh, Jharkhand, Orissa, Uttar Pradesh and Bihar. Females are more affected by illness than male because the nutritional status of young girls and women is less than male and less awareness to receive medical treatment before illness. Generally the cautions for women nutrition status are less unequal access to food, heavy work demands, and deprivation of special nutritional needs. Due to the lack of nutrition females are affected by illness particularly in anemia. The women especially poor women are suffering by illness in cycle period by child manner and hard physical labour. It's strongly noticed that in India this century is unfair to women ratio and favorable to male's ratio.

Objectives

1. To study the socio-demographic characteristics of the respondent.
2. To identify the reproductive health problems of the reproductive women.
3. To assess the nutrition status using anthropometry, and dietary pattern of the reproductive rural women.

Review of Literature

In the article **by Ramanakumar, (2004)** focused that the disease burden among rural India Women as made, The disease burden of rural India women was reviewed by Utilization the data from the surrey of causes of Death (Rural) Annual Reports of Registrar General of India Supplemented with National family health surrey (NFHS-II). The review indicated that bronchitis and asthma were the leading causes of death of rural women will primates marriage and hart attach was second and third respectively. Most of the maternal death wren connected in the age group 20-21 and bleeding was the main case. Rate of suicide burn and anemia, diminished with age ,it conclude that though women wide health plans have succeeded in reducing the family of women's diseases to a certain extent, there was however, a great need for improved and activate area- specific health program to achieve the decide goals.

Subarna Roy (2014) reviewed that the south Indian state of Karnataka, one part of several kingdom and princely status of repute in the Deccan peninsula, is rich in its historic, and anthropological heritage. The state is the home to 42,48,987 tribal people, of whom 50,870 belong to the primitive group. there are as many as 50 different tribal notified by the Government of India, living in Karnataka, of which 14 tribes including two primitive

ones, are primarily natives of this state. Extreme poverty and neglect over generation have life them in poor state of health and nutrition. It is however, interesting to note that most of these tribes who had been original native of the forests of the Western Ghats have been privy to an enormous of knowledge about various medicinal plants and their use in traditional medicine and these practice have been the subject matter of various scientific studies. This article is an attempt to list and map the various tribes of the status of Karnataka.

Udaya Lakshmi, et. al. (2014), found that the nutritional status of sixty women, who were either marginal farmers or landless agricultural workers were assessed by diet survey, anthropometry and estimation of heamoglobin levels. Diet survey carried out by the 24 hour recall method revealed adequate intake of calories and protein but low intake of micro-nutrients. While intake of vitamin C and the B vitamins were poor, iron and vitamin A were grossly deficient in the diet. Anthropometry showed heights and weights close to the mean height and weight values of Indian women. Body mass index was 22.5, indicating the absence of chronic energy malnutrition. Screening for haemoglobin levels showed that on the whole 93.4% of the women suffered from aneamia. However, micro malnutrition or " Hidden hunger" was very common with all micro nutrients especially iron, vitamin A, vitamin C and some extent the B-complex vitamins being grossly deficient.

Mega Mittal',(2013) The study was undertaken to assess the nutritional status, dietary intake and morbidity patterns among 100 non- pregnant & Non- Lactating rural women of reproductive age group of 18-40, in the village Bashapur, Gurgaon, Hariyana state. The mean BMI of the women was found to be 21.12 (3.7) kg/m with 25% of them being underweight and 16% being overweight or obese. The overall quality of food and nutrient intake was poor as the intake of all food groups (except fats, sugars and milk and milk products) was found to be much lower than their RDAs. The mean energy and protein intake was found to be 983.60 (+309.6) kcal and 27.33(8.2)g, reproductively which net only 50% of the nutrient requirements. Similarly, the intake of micronutrients was also found to be inadequate particularly of iron and folic acid which met only 37.8% and 11% of the RDAs respectively. Dietary deficiencies were also present in NPNL women of Badshahpur reflecting their effects in the signs like pale conjunctiva, menstrual problems and pregnancy complications, etc. As is seen above, more than 50% of women are an anemic and more than 36% are severely understand, study intent to make an effort to investigation the nutritional status, dietary intake and the morbidity pattern among rural women.

Methodology

Selection of Study Area

The present study was carried out in two villages among the tribal hamlets of Manamathy and Thandarai, Thiruporur Block in Kancheepuram district. All the two villages' hamlets have similar socio-demographic backgrounds. These hamlets tribal communities belong to the Irular community.

Sample Design

The sample consisted of 60 females belonging to the age groups between15-49. All the women in the two villages were taken as the sample and sampling method was used.

Tools of Data Collection

The main tools used for data collection was a qualitative and quantitative methods. It was constructed after reviewing the past researches on women conducted in India with the tribal's covering the various nutrition and reproductive health aspects.

Material and Methods

In this study, quantitative research design was adopted, because of availability and feasibility of the samples. Based on the problem statement and objectives of the study, investigative approach was used for this study. The purpose of investigative study is to observe and explore the reproductive health problems exist in the tribal area of Kancheepuram. Here the investigator identifies, explore and evaluate the nutrition and

reproductive health problems among reproductive age group women with the help of structured questionnaire related to nutrition and reproductive health problems.The study was carried out in Manamathy and Thandarai Village, Thiruporur Block, Kancheepuram District, Tamil Nadu state South India as per the feasibility of the researchers and the availability of the sample. The subjects were 60 tribal women (15-49 years of age group). All the two villages have similar socio-demographic backgrounds, anthropometry and Diet-survey carried out by the 24 hours recall method and reproductive health status of tribal women. These village tribal communities belong to the Irular community.

Body Mass Index (BMI)

Body mass index was calculated using height weight data and women were classified into different degrees of nutritional status using the cutoff levels suggested for Asian women (IOTF/WHO, 2000).

BMI was calculated using the formula

$$BMI = \frac{Height}{Weight(M)^2}$$

The subjects were categorized into four groups based on BMI according to WHO Asian pacific standers as

< 18.5 kg/m^2 - chronic energy deficiency or under weight
18.5-22.99 Kg/m^2 - Normal
23-24.99 Kg/m^2 - Over weight
>25 Kg/m^2 - Obese

Dietary Data

A diet survey as the part of nutritional assessment was conducted and the nutrient intake of the subjects were assessed for 24 hours following using the food recall method. The serving sires were described in house hold measures or as number of pieces to find out the intake of various food items in different meals of day. Nutrient percentage of adequacy was also assessed by using a formula.

$$\frac{Nutrient\ Intake}{RDA} X\ 100$$

Results and Discussion

General information of the subject was shown in Table 1. The sample consisted of reproductive tribal women (n=60). Out of this total number 61.6% were between the age group of 15-30 years, and 38.4% between30-49. A majority of the respondents were Hindu 93.4% and the remaining Christians 6.6%.

Occupational Status

Out of the total 60 respondent, 46.7 percent are daily wages (coolie), 41.7 percent are private sector employees and remaining 1.6 percent of the women were housewives taking care of the children.

Economic Status

Although economic status is a very relative term but for the purpose of the present study income of the respondents, women most of them were working and had income. Out of the total 60 respondent, 81.7% percent have income of Rs. 2000-5000 as per month and the remaining 18.3% percent have income of Rs.5000-7000 as per month.

Table 1: Socio- Economic Characteristics of Sample Rural Women

	No. of respondents	Manamathy village	Percentage	Thandarai village	Percentage
Religion Group					
Hindu	56	29	96.7	27	90.0
Christian	4	1	3.3	3	10.0
Muslim	0	0	0.0	0	0.0
Total	**60**	**30**	100.0	**30**	100.0
Age Group					
15-30	37	19	63.3	18	60.0
30-49	23	11	36.7	12	40.0
Total	**60**	**30**	100.0	**30**	100.0
Education Group					
Illiterate	39	21	70.0	18	60.0
Primary Education	18	7	23.3	11	36.7
Secondary Education	3	2	6.7	1	3.3
Degree	0	0	0.0	0	0.0
Diploma	0	0	0.0	0	0.0
Total	**60**	**30**	100.0	**30**	100.0
Occupation Group					
Housewife	**7**	**4**	13.3	**3**	10.0
Government employees	**0**	**0**	0.0	**0**	0.0
Private sector	**15**	**11**	36.7	**14**	46.7
Daily wages(coolie)	**38**	**15**	50.0	**13**	43.3
Total	**60**	30	100.0	**30**	100.0
Income Group					
2000-5000	39	**23**	76.7	**26**	86.7
5000-7000	**21**	**7**	23.3	**16**	53.3
7000+Above	**0**	**0**	0.0	**0**	0.0
Total	**60**	**30**	100.0	**30**	100.0

Source: Primary data

The most of the tribal women don't have any knowledge about Balance diet particularly some people don't have breakfast at the morning. The rural women don't meet sufficient calories even the pregnancy and lactating period. The food intake of subjects, their RDA and the percent adequacy of the diet in relation to each food item was given in Table 2. The data indicates that the milk & milk product consumption was more than the RDA that is 176 adequacy. Similarly the cereals requirement was met up to 135 adequacies and the usage of pulses was up to 42 adequacy of requirement. There was a deficiency in the consumption of Green vegetable products, other vegetable as well as fruits by about 50%. However fat consumption was lowest, being even less than half of the requirement 20%. Among Green leafy vegetable, fruits, pulses, was very less in terms of poor micronutrient intake of the subjects.

Table 2: Foods intake of subjects per day

Food group	RDA	Actual intake (Kcal/day)	Adequacy
Cereals	330	195	135
Pulses	75	33	42
Green leafy vegetables	100	42	48
Other vegetable	200	145	55
Fruits	100	36	64
Milk & Milk products	300	124	176
Fat & Oils	25	20	5

Source: Primary data

The normal BMI of the details were 23 (38.4%) normal, 11 (18.3%) were above normal, 5 (8.3%) were overweight, 21 (35%) below normal (Table 3). The BMI of the details was 22.49 i.e. above normal. 8.3 percentage of the respondents has chronic energy deficiency or under weight

Table 3: BMI of the details

Sl. No	Range	No.of women	Percentage
1	Normal (18.5-22.99)	23	38.4
2	Above Normal (>25)	11	18.3
3	Over weight (23-24.99)	5	8.3
4	Below normal (<18.5)	21	35

Source: Primary data

Reproductive Health

The health awareness of reproductive health is very strong less among the rural tribal women. According with most of the tribal women assuming that "Each and every women having the reproductive health issue such as irregular periods, prolong period, menstrual pain, sixteen women who have vaginal discharge problem. Because no need to worry and take any further treatment for this ". Due to the tribal women lack of awareness about reproductive health issue, most o the respondents had reproductive health problems, the most common being menstrual problems such as irregular periods 44%, over bleeding 16%, menstrual time having vomiting and nausea 26%, remaining Inter-menstrual bleeding 4% at the same time 90% of the tribal women having awareness about HIV.

Suggestions

1. Should be conduct women health related program including nutrition defiance at least yearly once.
2. The Village health women (nurses) must be conduct awareness classes at every six month for every village.
3. NGO's can request to conduct nutritional and reproductive women health class for each and every month such as they conduct regular schools in tribal areas.
4. The new generation mostly attracted by Television mega serials particularly the women so the good and quality advertisement can telecast between the serials.

Conclusion

This study on the nutrition and reproductive health status of tribal women in Kancheepuram district showed that both energy and protein intake were sufficiently high to maintain a good body mass index. It is clear that these women face problems regarding the accessibility and availability of food. Inconvenient public transport facilities available ever three an hours. The poor nutrient intake and limited dietary diversity have resulted in about one third of the women suffering from chronic energy deficiency. Out of the fifteen women who experience menstrual pain, sixteen women who have vaginal discharge problem, and the five women who have irregular period's problems, only two sought medical help. All the women rely on the government hospital for their antenatal check-ups and delivery. Overall the dietary status of the women needs to be improved to enable them and their daughters to break away from the cycle of under-nutrition due to poor intake of food.

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