Impact of Socio-Economic Profile on Nutritional Status of Adult Tharu Population in Bahraich District of Uttar Pradesh , India

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ABSTRACT ***Background:*** *Tribes constitute a considerable proportion of the indian population. Most of them are underpriviliged.* ***Objectives:*** *The principal aim of this study was to assess the impact of socio economic condition on nutitional status of adult tharu population in Bahraich district of Uttar Pradesh.* ***Method :*** *A total of 356 adult (aged >18 years) tharus of four villages of Bahraich district, Uttar Pradesh, India were studied. Height,weight has been taken as anthropometric measurements and BMI was calculated to ascertain nutritional status. To classify the socio-economic status of the respondents,Uday Pareek and Trivedi scale has been adopted with subject to preliminary test and slight modification as per the need of the study.* ***Result:*** *Co-relation between socio economic and nutritional status was found to be positive , therefore it can be concluded as the socio economic status increases, simultaneous increases was observed in the nutritional status also.* ***Conclusions:*** *The level of undernutrition among adult tharu was high. It is suggested that some immediate nutritional intervention programme are needed for implementing among Tharu community of Bahraich district of Uttar Pradesh.*

Keywords: *Body Mass Index, Nutritional Status, Socio-Economic status*

Introduction

India one of the biggest democratic countries of the world, has its commitment to the creation of a society free from poverty, ignorance and diseases, so that equality, freedom and justice can be made accessible to all citizen of the country in general and tribes in particular[1]. As per the census of 2011 the tribal population consists of 8.6% while it was 8.2% according to the census of 2001[2]. The term ***Adivasi*** is a Hindi word that comes from Sanskrit language. It is a combination of two words, *Adi* -which means first or the early, and *vasi* – meaning dwellers or settlers or inhabitants. Together it means the first settlers, or early inhabitants or early dwellers. This term is commonly used for groups otherwise categorized as "scheduled tribes" in the constitution of India[3]. Several research studies on tribal population living in different parts of India have found them to be socially and economically vulnerable because of their geographical isolation, socio-economic disadvantage and inadequate health facilities[4,5] The Tharu is well known scheduled tribe of Uttar Pradesh. It was declared as scheduled tribe in U.P. in the year 1967, along with four other tribes.

Nutrition status of individuals and general health condition indicates the socio-economic condition prevalent the society. Although, adult nutritional status can be evaluated in many ways[6], it is established fact that Body Mass Index is useful anthropometric indicator of measuring nutritional status of the population[7]. The prevalence of Chronic Energy Deficiency (CED) measured through BMI. BMI is generally considered a good indicator of not only the nutritional status but also the socioeconomic condition of a population, especially adult populations in developing countries[8,9,10,11]. A BMI of less than 18.5 is widely used as a practical measure of chronic energy deficiency, i.e., a steady condition of underweight in which an individual is in energy balance irrespective of a loss in body weight or body energy stores[12]. Such a steady condition of underweight is likely to be associated with morbidity or other physiological and functional impairments[13,14,]. There is urgent need to evaluate the nutritional status of various tribes of India[15]. In the view of this, the present study has attempted to evaluate prevalence of under-nutrition among adult Tharu. To the best of my knowledge, this is the first report on the anthropometric and nutritional profile of adult tharu popoulation of Uttar Pradesh (India).

Methodology: The basic objective of this study was to assess the impact of socio economic status on Nutritional status of Tharu Tribes of Bahraich District of Uttar Pradesh. Looking to the nature of study descriptive research design was adopted. For the study of Nutritional status of adult tharu tribes, there was 15 blocks in Bahraich district but its Nanpara tehsil has 4 blocks, in these 4 blocks only Mihinpurwa has tharu population. Shivpuri, Vishnapur, Fakeerpuri and Bardiya villages were selected purposely. 356 sample were selected for the study. 89 respondents were selected from each villege. All male and female

individuals were selected at random from the above mentioned villages for the present study. Anthropometric measurements were assess with the help of BMI. Height and weight were recorded to the nearest 0.1 cm and 0.5 kg, respectively.9 BMI was computed from the following standard equation: BMI = weight (kg)/height (m2) . Nutritional status was evaluated according to internationally accepted World Health Organization (WHO) BMI guidelines[13]. The following cutoff points were used:

Status	BMI
CED III	16.0
CED II	16.0-16.9
CED I	17.0-18.4
Normal	18.5-24.9
Overweight	≥25
Obese	≥30

To classify the socio-economic status of the respondents, socio economic status scale for rural areas primarily developed by Uday Pareek [16] has been adopted with subject to preliminary test and slight modificationa as per the need of the study. The scale used for data collection consist 9 main items such as (1) Income (2) Family type (3) Education (4) Occupation (5) Land (6) Farm power (7) Material possessions (8) House (9) Social participation of the respondent. Field data was collected by direct observation and personal interview method. Using Uday Pareek scale for the assessment of socio economic status, if the score of the respondent is between 26-32, it is considered that the respondent is belonging to the Upper middle Class. Similarily, if the respondent's score was between 21-26, it is considered as belonging to middle class. The score range of between 15-20 was considered as belonging to Lower-Middle Class; and score between 08-14 was regarded as belonging to lower class.

Result:

Table 1 :Distribution of respondents on the basis of sex

Respondents by Sex	No. of respondents	%
Female	211	59.26
Male	145	40.74
Total	**356**	**100**

Above table indicate that 59.26% respondents belongs to female category and 40.74% respondents belongs to male categoty.

Table 2: Prevalence of under nutrition based on BMI among adult Tharu population

Nutritional Status	Frequency (n)	%	Mean+SD
Underweight	89	24.9	20.98±3.9
Normal	233	65.5	
Overweight	20	5.5	
Obese	14	4.1	
Total	356	100	

The result indicate the distribution of subjects according to nutritional status based on BMI. The mean BMI of the samples were found 20.98 (±3.9). The data shown in table 2 depicts that more than 65% of the sample fell under normal BMI range i.e 18.5-24.99. 24.9% were underweight having BMI <18.5 and 5.5% respondents were overweight. Only 4.1% respondents were obese with BMI more than 30.

Table 3: Prevalence of CED (Chronic Energy Deficiency) among adult Tharu population

Nutritional Status	Frequency (n)	%
CED III	9	9.7
CED II	29	32.2
CED I	51	58.1
Total	89	100

The data indicat the overall distribution of the respondents according to nutritional status based on Chronic Energy Deficiency. Out of 89 respondents who were underweight, 9.7% respondents having CED III, 32.2 %

having CED II and most of the respondents (58.1)
were suffer from CED I.

Table 4: Overall socio-economic status of the respondents:

Category	Score	No. of respondents	%
Upper-middle class	26-32	1	0.28
Middle class	21-25	19	5.33
Lower –middle class	15-20	269	75.56
Lower class	08-14	67	18.83
Total		356	100

Table 4 displays socio-economic conditions of tharu tribes from Uday Pareek and Trivedi scale,it can be concluded that all the tharu tribes belong to four categories viz: Upper Middle Class, Middle Class, Lower Middle Class and Lower Class. 0.28% respondent belongs to upper middle class, 5.33% are middle class, 75.56% belongs to lower middle class and 18.83% lower class.

The result indicate that the co-relation coefficient between socio-economic status and nutritional status was found to be positive that is r = 0.92, therefore it can be concluded that as the socio-economic status increases, simultaneous increases was observed in the nutritional status.

Discussion:

A study conducted by Komuha (2014) [17] on mao naga farmers in senapati district of Manipur where 74% respondents belong to male category and 26% resondents belongs to female catogory.Chakma et al (2009)[18] conducted a study on Nutritional Status of Baiga – A Primitive Tribe of Madhya Pradesh and the nutritional status of adults was assessed by BMI classification. He concluded that prevalence of chronic energy deficiency (BMI<18.5) was about 76per cent among adult population. The present study revealed that malnutrition is widely prevalent among tribe which is mainly due to inadequate dietary intake. Kaushik Bose and Falguni.

Conclusion:

The finding in the present opens a debatable points about the role of socio economic profile on nutritional status assessment of tharu tribe of Uttar Pradesh. This study was co-relate socio economic profile of tharu tribe with their social and economic status and finding that how to nutritional profile of tharus affected from their socio-economic status.

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