Nutritional Knowledge Among Women Tea Garden Workers of Tinsukia District of Assam

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Abstract

The present research study entitled knowledge of women tea garden workers of Tinsukia district of Assam on nutrition was done with the objectives, to study the socio-personal characteristics of women tea plantation workers of Tinsukia district of Assam, to assess the existing knowledge of women tea plantation workers on nutrition, to find out the relationship of women tea plantation workers knowledge with the selected independent variables on nutrition. The study was carried out in two Tea Estates i.e. Bogapani T.E., Powai T.E., of Tinsukia district of Assam. Sixty respondents were selected from each garden totaling 120 women tea plantation workers from the two selected tea gardens were the respondents of the present study. The findings show that the women tea plantation workers of Tinsukia district had medium level of knowledge on nutrition.

Key words: Nutrition, Knowledge, Socio-personal

INTRODUCTION:

Women tea plantation workers are the backbone of the tea industry, particularly in regions like Assam, India. Despite their significant contributions to the economy and their families, these workers often face numerous challenges related to nutrition, health, and well-being. Malnutrition and poor health outcomes are prevalent among women tea plantation workers, which can be attributed to various factors, including limited access to education, healthcare and nutritious food options. Furthermore, cultural and traditional practices may also influence their dietary habits and nutritional knowledge.

Objectives:
- o To study the socio-personal characteristics of women tea plantation workers of Assam.
- o To assess the existing knowledge of women tea plantation workers on nutrition.
- o To find out the relationship of women tea plantation workers knowledge with selected independent variables on nutrition.

METHODOLOGY:

The study was carried out in two tea estates of Tinsukia district of Assam i.e. Bogapani T.E. and Powai T.E. Sixty women tea plantation workers were selected from each garden totaling one hundred twenty women tea plantation workers from two selected tea gardens were the respondents of the present study.

In the present study, knowledge of women tea plantation workers were considered as dependent variable and independent variables were age, educational qualification, family type, family size, monthly family income, organizational membership and mass media exposure.

The data was collected through personal interview method. After data collection, the gathered data were coded, tabulated and statistically analyzed by the following statistical methods.

Frequency: Frequency and percentage were calculated to find out the socio-personal characteristics of the respondents.

Mean: The formula used for calculation of mean is:

$$\text{Mean } (\overline{x}) = \sum \frac{fx}{N}$$

Where**,**
$\sum fx$ = total scores
N= total number of respondents

Standard deviation: standard deviation is considered to be the best measure of dispersion to categories the variables. Standard deviation was calculated by following formula:

$$SD = \sqrt{\frac{\sum X^2 - \frac{(\sum x)^2}{n}}{n-1}}$$

Where,

x = Scores of knowledge and adoption

n = Total number of respondents

Mean $\pm$ standard deviation (SD) criterion was used on the basis of their knowledge scores obtained to classify the respondents according to their existing knowledge level on nutrition in the following procedure:

The scores less than mean - SD = Low level
The scores between mean - SD and mean + SD = Medium level
The scores more than mean + SD = High level

1. **Correlation co-efficient**

   Correlation Co-efficient was also computed to see the relationship of independent variables with dependent variables such as knowledge adopted by the respondents.

$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

Where,

r = Simple correlation coefficient

x = Independent variable

y = Dependent variable

x = Sum of 'x' values

y = Sum of 'y' values

x^2 = Sum of squares of 'x' values

y^2 = Sum of squares of 'y' values

xy = Sum of product of 'xy' values

n = Number of pairs of observationsd

RESULTS AND DISCUSSION:

The observations of the present study as well as relevant analysis have been summarized under the following heads:

Socio-personal characteristics of respondents:

A majority of the respondents (60 %) belonged to younger age group followed by 33.33 per cent of respondents in the middle age group. A negligible percentage of respondents belonged to the old age group (Table 1). Regarding educational qualification, 40 per cent respondents were studied up to primary level, 35 per cent respondents were illiterate, 17.50 per cent respondents studied upto high school level and a negligible percentage of the respondent was HSLC passed. A large majority of the respondents (80 %) were from nuclear family and only twenty per cent respondents were from joint

family. It was also evident from Table 1 that more than half of the respondents (56.67%) had small family size followed by 26.67 per cent had medium family size and 16.67 per cent of respondents had large family size. A large majority of the respondents (85%) were family income up to Rs.3000- 7000 per month. It was also noted from the Table 1 that a large majority of the respondents (83.33%) had no membership in any organization. The majority of respondents (69.17%) had a medium level of exposure to the media, followed by low exposure (20.00%) and high exposure (10.83%).

Table 1: Distribution of respondents according to the socio-personal characteristics

Sl. No.	Variables	Bogapani (n=60)		Powai (n=60)		Total (N=120)	
		f	%	f	%	f	%
1.	**Age (Years)**						
	Young (25-35 yrs)	33	55.00	39	65.00	72	60.00
	Middle (35-45 yrs)	22	36.66	14	23.33	36	33.33
	Old (45 and above)	5	8.33	7	11.67	12	10.00
2.	**Educational qualification**						
	Illiterate	25	41.66	17	28.33	42	35.00
	Primary level	20	33.33	28	46.67	48	40.00
	High school level	10	16.66	11	18.33	21	17.50
	HSLC passed	5	8.33	4	6.67	9	7.50
3.	**Family type**						
	Nuclear	45	75.00	51	85.00	96	80.00
	Joint	15	25.00	9	15.00	24	20.00
4.	**Family size**						
	Small	36	60.00	32	53.33	68	56.67
	Medium	15	25.00	17	28.33	32	26.67
	Large	9	15.00	11	18.33	20	16.67
5.	**Monthly family income**						
	3,000-7,000	53	88.33	49	81.67	102	85.00
	7,000 and above	7	11.67	11	18.33	18	15.00
6.	**Organizational membership**						
	Labour association	8	13.33	12	20.00	20	16.67
	No membership	52	86.67	48	80.00	100	83.33
7.	**Mass media exposure**						
	Low	13	21.67	11	18.33	24	20.00
	Medium	42	70.00	41	68.33	83	69.17
	High	5	8..33	8	13.33	13	10.83

Knowledge on nutrition:

Table2: Distribution of respondents according to their level of knowledge on Nutrition

Knowledge level	Bogapani (n=60)		Powai (n=60)		Total (N=120)	
	f	%	f	%	f	%
Low	14	23.33	12	20.00	26	21.67
Medium	46	76.67	47	78.33	93	77.50
High	0	0.00	1	1.67	1	0.83

Majority of the respondents (77.50%) had medium level of nutrition knowledge regarding conservation of nutrients. 21.67 per cent of respondents had low level of knowledge on nutrition while a negligible percentage of the respondents belonged to high level of nutrition knowledge (Table 2). It signifies that most of the women tea plantation workers of the selected areas had medium level of knowledge on nutrition. It might be due to the respondent's ignorance, lack of awareness and illiteracy, which would avoid them to learn or gather information on nutrition from any source.

Relationship of women tea plantation workers knowledge with selected independent variables on nutrition, health and hygiene :
There was no significant relationship of nutrition knowledge of the respondents with the selected independent variables such as educational qualification, family type, family size, family income, organizational membership.

Table 3 Relationship of nutrition knowledge of respondents with selected independent variables

Variables	Corelation co-efficient ('r')	t value
Age	0.122**	1.235
Educational qualification	0.120	1.201
Family type	0.045	0.471
Family size	0.241	2.521
Monthly family income	0.126	1.290
Organizational membership	0.243	2.651
Mass media exposure	0.359**	3.592

** significant at 0.01 per cent level of significance

There was highly positive significant relationship of nutrition knowledge of the respondents with independent variables such as age and mass media exposure. It means that the level of nutrition knowledge of the respondents increased with the increase in the frequency of more exposure to mass media and age of the respondent. It might be the fact that the respondents who scored better on nutrition assessment, might have collected information from the mass media etc. on nutrition.

Significant relationship of knowledge with the age of the respondents also revealed that health knowledge of respondents increased along with the increase in respondent's age. Respondents with more age might have had more nutrition knowledge due to their experience (Table 3).

Conclusion:

Women tea garden workers often face significant challenges in accessing quality nutrition, impacting their overall health and well-being. Their diets often lack essential nutrients, leading to micronutrient deficiencies and related health issues. Cultural beliefs, socioeconomic status, and work-related constraints influence their food choices and nutritional practices. The findings show that the women tea garden workers of Tinsukia district had medium level of knowledge on nutrition. Many studies reveal that nutritional status of tea plantation workers were not satisfactory. Illiteracy pertained in tea garden area is one of the major causes for respondents to make them less knowledgeable. As the women tea plantation worker's knowledge on nutrition was not found satisfactory, organization of an intervention programmes on nutrition would help the respondents to raise their nutritional status to enhance worker's physical work capacity which in turn help them to live in a healthy environment.

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