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Assessment of nutritional knowledge of women residing in slum areas of Agra

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Abstract

Woman plays an important role in our society. A woman's health is her total well-being which is not only determined by her biological factors but also by the effects of workload, nutrition, stress, war and migration etc. Women's health reflects the health of the family. Nutritional knowledge plays a vital role in improving the nutritional status of the women. The aim of the present study was assess the socio-economic characteristics and nutritional knowledge of women. Agra district was selected conveniently in the present study. Multistage random sampling was used. Two Mohallas were selected by lottery method namely Nunhai and Bapu Nagar. Door to door survey was conducted. A List of women aged between 21 to 49 years was prepared form two selected wards. One twenty women were selected by lottery method for the present study. A self-structured questionnaire was used. It consists the information regarding socio-economic status and nutritional knowledge of women. Scoring procedure was used for evaluating the nutritional knowledge. The finding of the study reveals that out of the total respondents, majority (52.50%) of women were underweight. The nutritional knowledge was positively associate with education and body mass index. It is evident by the p-value which indicates the statistically significant at <0.05 level. Family income was also positively associate with body mass index which is statistically significant at <0.05 level.

Census, 2011 of India[1] has stated the existence of three categories of slums namely Identified, Recognized and Notified slums respectively. The Identified slums comprised 37.20%, Notified slums made up 34.30% and the Recognized slums comprised 28.50% of the total slum population of India. It also stated that 63% of the towns in India have slums whereas 37% of the slums are free from slums. During 2001- 2011, there was an increase in the slum population in India[7]. Nutrition is important for the well-being of humans. The

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major nutritional problems are associated with low quantity and quality consumption of nutrients, thus leading to nutritional deficiencies and health disorders (ICMR, 2010). Woman plays an important role in our society. A woman's health is her total well-being which is not only determined by her biological factors but also by effects of work load, nutrition, stress, war and migration etc. Women's health reflects the health of family. Nutritional knowledge plays vital role in improving the nutritional status of the women[6]. NFHS -5 (2019-20) stated that the nineteen percent of women age 15-49 are thin, 24 percent are overweight or obese, and 57 percent have a BMI in the normal range. The proportion of thin women is higher in rural areas (21%) than in urban areas (13%) and the reverse is observed for the prevalence of overweight or obesity (33% in urban areas and 20% in rural areas.

Objectives :

a. To assess the socio economic status of selected women.
b. To assess the nutritional knowledge of selected women.
c. To find the association of nutritional knowledge with age, education, income and body mass index.
d. To find the association of family income with body mass index.

Agra district was selected conveniently in the present study. Multistage random sampling was used. In stage one, there are 90 wards in Agra district. Out of which Trans-Yamuna and Khandari wards were selected by lottery method. In stage two, there are 459 Mohallas, out of which Nunihai and Bapu nagar were selected by lottery method. Door to door survey was conducted. A List of women was prepared form two selected wards. One twenty women were selected by lottery method for the present study. A self-structured questionnaire was used. It consists the information regarding socio economic status and nutritional knowledge of women. Scoring procedure was used for evaluating the nutritional knowledge.

Table-1. Distribution of socio economic characteristics of selected sample

Socio-Economic Characteristics		**Percentage (%)**
Age (Years)S	21-29	13.3
	30-39	34.16
	40-49	52.5
Education	Illiterate	74.1
	Primary education	25.8
	Secondary education	0.0
	Graduation	0.0

Income (Rupees)	Less than 5000	34.1
	5000-10000	42.5
	10000-15000	40.0
	More than 15000	0.0
Occupation	Housewife	18.4
	Labour	56.6
	Business	25.0
	Private business	0.0
Religion	Hindu	74.1
	Muslim	10.8
	Sikh	0.0
	Others	15.0
Type of Family	Nuclear	24.1
	Joint	70.0.
	Extended	5.8
Number of family members	2-4	24.1
	4-7	72.5
	8 and above	3.3

Table-1 reveals the distribution socio economic characteristics of selected respondents. Out of the total 120 selected respondents, majority of them (52.5%) respondents were belonged to the age group of 40-49 years, followed by 37.50% respondents were belonged to the age of 30-39 years and the least (13.3 %) were belonged to the age of 21-29 years. Further table depicts the education level of respondents and found that majority of them (74.1%) were illiterate and followed by (25.8%) respondents had education at primary level and no one had the education at secondary and graduation level. According to income group, majority of them (42.5 %) had monthly family income between Rs. 5,000-10,000, followed by 40% had monthly family income between Rs. 10,000 – 15,000, and the least 34.1 % respondents had monthly family income of less than Rs. 5000. Respondents were engaged in an occupation, majority of them (56.6%) were enganged in labour work, 25% were engaged in business and 18.4% respondents were engaged in household works.

Further the table explains about the religion of selected respondents, majority of them (74.1%) belonged to the Hindu religion, followed by 10.8 % of respondents belonged to the Muslim religion and 15% belonged to the other religions and also highlights the type of family, majority of respondents (70.0%) belonged to joint family, followed by 24.1% respondents who belonged to nuclear family

and the least (5.8 %) belonged to the extended family. According to the number of family members, majority of them (72.5%) had 4-7 family members, followed by 24.1 % of respondents with 2-4 family members, and the least (3.3 %) of the respondents had above 8 family members.

Table-2. Distribution of women according to their Body Mass Index

Body mass index	Number (120)	Percentage (%)
Underweight (<18.5)	63	52.5
Severe thinness (<16.00)	0	0
Moderate thinness (16.0-16.9)	4	3.33
Mild thinness (17.0-18.4)	7	5.83
Normal (18.5-24.9)	46	38.3
Overweight (25.0-29.9)	0	0
Total	120	100

Table-2 indicates the distribution of respondents (21-49 years) according to their Body Mass Index. Out of total selected respondents, majority of them (52.5%) were underweight (< 18.5), followed by 38.3% of the respondents had normal (18.5-24.9) body mass index and least 3.33 % of respondents had moderate thinness (< 16.0 -16. 9). As per the National Family Health Survey (NFHS)[4] report – 4 conducted by Ministry of Health and Family Welfare in 2015-16, 22.9% women (15-49 years of age) are underweight (BMI less than 18.5 kg/m^2).

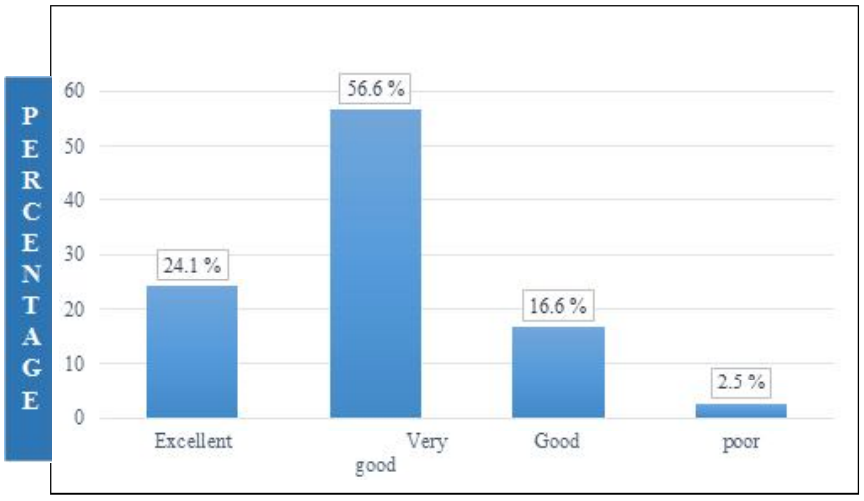

Fig. 1. Distribution of respondents (21-49 years) according to their nutritional practices

Figure 1 explains the distribution of respondents (21-49 years) according to their nutritional knowledge. Out of total selected respondents, majority of them (56.6%) had very good level of nutritional knowledge, followed by 24.1% of respondents had excellent level of nutritional knowledge and 16.6% respondents had good level of nutritional knowledge and least percentage (2.5%) had poor level of nutritional knowledge. Rachappa *et al*.,[6] found in the study that majority of the respondent had good knowledge about both balance diet (70%) and health status (59%), 20% respondent had medium knowledge about balance diet similarly, 27% respondent had medium knowledge about Health status. Fourteen percent had low knowledge about health status and 10% had low knowledge about balanced diet.

Table-3. The association of nutritional knowledge with age

Variable	Mean	SD	r-value	p-value	Significance value
Nutritional Knowledge	7.008	2.060	-0.708	0.0001	<0.05
Age	34.633	6.876			

Above table-3 depicts the correlation between age and nutritional knowledge of respondents. The correlation ranged between age and nutritional knowledge was -0.708 which indicates that there was a negative relation between the variables. The p-value is 0.0001 which indicates that the relationship is statistically significant at <0.05level. Valmorbida *et al*.,[8] reveals that there was a significant association between nutritional knowledge and BMI of the respondents, especially with respect to generating knowledge that enables healthy food choices, implementing programs for disease prevention and health promotion.

Table-4. The association of nutritional knowledge with body mass index

Variable	Mean	SD	r-value	p-value	Significance value
Nutritional Knowledge	7.008	2.060	0.190	0.0372	<0.05
BMI	20.517	2.717			

Table-4 reveals the correlation between nutritional knowledge and body mass index of respondents and found that positive relation between nutritional knowledge and nutritional status. It is evident by the p-value (0.03) which is statistically significant at <0.05 level.

Table-5. The association of nutritional knowledge with education

Variable	Mean	SD	r-value	p-value	Significance value
Nutritional knowledge	7.008	2.060	0.779	0.0001	<0.05
Education	0.258	0.439			

Table-5 highlights the correlation between education qualification and nutritional knowledge of respondents. The correlation range between education qualification and nutritional knowledge was 0.7798 which indicates that there was a positive relation between the variables. The p-value is 0.0001 which indicates that the relationship is statistically significant at 0.05 level. Regression models showed that higher nutrition knowledge was independently associated with lower intake of non-vegetarian diet and higher intake of vegetarian diet. Nutrition education (1 h/week) was statistically significant[2].

Table-6. To find the association of family income with body mass index

Variable	Mean	SD	r-value	p-value	Significance value
Family Income	7950	3516.706	0.839	0.00001	<0.05
BMI	19.025	2.892			

Table-6 highlights the correlation between family income and body mass index of respondents. The correlation range between family income and body mass index was 0.8395 which indicates that there was a positive relation between the variables. The p-value is 0.0001 which indicates that the relationship is statistically significant at 0.05 level.

On the basis of the result obtained from the present study entitled "Assessment of nutritional knowledge of women residing in slum areas of Agra," it can be concluded that majority of them (52.5%) respondents belonged to the age group of 40-49 years and 74.10 % women illiterate. Majority (52.50%) of women were underweight. The nutritional knowledge was positively associated with education and body mass index. It is evident by the p-value which indicates the statistically significant at <0.05 level. Family income was also positively associated with body mass index which is statistically significant at <0.05 level.

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