



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2021; 10(3): 55-60

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[www.thepharmajournal.com](http://www.thepharmajournal.com)

Received: 07-01-2021

Accepted: 18-02-2021

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## A sociological study on specific knowledge of rural and urban women about health and food aspects

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### Abstract

The women's health and well-being has the direct bearing on the health status of the family members as well. Women are usually vulnerable to malnutrition for both social and biological reasons, throughout their life cycle. The present study was conducted to assess the knowledge of women about food and health aspects. A total of 120 women respondents (60 each from rural and urban) were surveyed with the help of well structures Interview schedule as per objectives. The basic difference between the rural and urban consumption pattern was that more respondents of urban were daily consuming rice (70.00%) and fruits (86.67%) whereas daily consumption of these items in rural areas was 55.00 and 65.00 per cent respectively. The pearl millet was mainly consumed by rural respondents seasonally (85.00%). The specific knowledge of respondents about food and health aspects was somewhat higher among urban respondents as 50% respondents from urban were having high specific knowledge whereas only 21.67% rural respondents were having high level of specific knowledge. The results indicated that specific knowledge about food and health aspect was significantly affected by education, service occupation, land holding, income, SES and mass media exposure. It was found that main health problems of rural women were common disease (51.66%), infectious (18.33%), chronic(11.67%), pregnancy and gynecological (6.67%), whereas respondents from urban area were suffering from infectious(47.62%), common (36.67%), chronic problems (20.00%) and psychological (15.00%). It is suggested that specific knowledge about health and nutrition aspects must be imparted to rural as well as urban women

**Keywords:** Women, knowledge, food, health, diseases

### 1. Introduction

“Every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties”.

United Nations

According to a United Nations report on healthcare, about 75% of the healthcare infrastructure, including medical experts and doctors are concentrated in urban areas in India even through only 27% of the population lives in urban parts. India is the country of huge population, as per Census 2011, the total population of India is 121 core, out of which the rural population is 83.3 crore (68.84%) and urban population is 37.7 crore (31.16%). It is obvious that majority of population lives in rural area.

Where the people in the world are facing hunger due to poverty and limited resources, food and nutrition are essential components for human survival. Good health and nutritious diet is necessary for not only survival but also for the sustainable development of nations. Awareness about food and nutrition among the women is very important for maintaining the good health of the overall family.

A woman is the care taker of the members of the family and the complete household. The women's health and well-being has the direct bearing on the health status of the family members as well. Women specifically in India are found to be taking the responsibilities of the family management and the children and elders as well because of their nurturing behaviour. Members of the family from all age group connect easily with the mother, sister or daughters at their home. Thus they play dominant role in rural and urban families. Poor health conditions of women disable them from taking care of the family members and also impact their socio-economic lives Chauhan (2018) [3]. Women not only share the responsibilities of home but are also actively involved in economic activities to support their families and children, as rural women are found to be working at the farm whereas urban women are mostly employed at office jobs.

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The World Health Organisation defines 'Health' as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" whereas nutrition is the pre-requirement of the health status. The most widely accepted definition of nutrition, as given by Robinson, "it is the science of foods, nutrients and other substances, their action, interaction and balance in relation to health and disease, the process by which the organism ingests, digests, absorbs and utilizes nutrients and disposes off their end products". Individuals need a wide range of nutrients to keep them healthy and active. Nutrition according to science is considered an important factor to prevent body from chronic disease such as diabetes, cancer, obesity that are found in most of the human beings nowadays. The lifestyle changes that are seen from rural to urban shift has given rise to many health problems as of food intake timings, decreased physical activity, increased fat consumption etc. resulting in prevalence of nutrition related non-communicable diseases.

Among women the knowledge about food and health aspects is a very essential requirement. As maintaining the health is a basic need of the human being and women are the operators of kitchen in Indian households thus they can provide healthy food only with prior knowledge about the nutrient value of food for maintaining good health. Also, females constitute almost a-half of the total population and more than one-third of the total workforce. Major responsibility of bearing and rearing children lies with the women. The health status of the mother directly influences the health and well-being of a new born for the rest of the life. An inadequate intake of nutrients could lead to malnutrition and deficiency diseases in a mother as well as a child. Low nutritional status makes men, women and children prone to certain ailments. Lower health status manifests itself in lower life expectancy, higher rates of morbidity and mortality, lower levels of productivity, and a decreased ability to earn and support. Research scientists have pointed toward the importance of food security and nutrition requirement of people in India (Sahu *et. al.*, 2015; Chadha, 2016; Srinivas, 2017) <sup>[11, 2, 13]</sup> but studies about food habits and knowledge toward food and health aspects among women are lacking. Keeping this background in view the present study was planned to appraise food habits of women and their specific knowledge toward food and health aspects and socio-economic factors affecting it.

## 2. Materials and Methods

The study was conducted in Hisar district of Haryana. From this District, two village Shamsukh and Rajpura were selected randomly for rural and Hisar city was taken for urban for the purpose of the study. On the whole, a total of 120 women respondents (60 each from rural and urban) were surveyed with the help of well structures Interview schedule as per objectives. Questions in interview schedule were framed regarding socio-economic profile of the respondents. Various questions were framed to assess the food habits of women and their specific knowledge about food and health aspects and

the socio-economic factors affecting these. Data were analyzed and tabulated to draw the inferences.

## 3. Results and Discussion

### 3.1 Contextual Matrix of Respondents

The socio-economic profile of respondents revealed that majority of them were from general caste (70.83%), married (89.17%) and were having nuclear type of family (61.67%). About 45% respondents were between 36-50 years of age, having farming as main occupation and were having high mass media exposure. A comparison between respondents of rural and urban areas indicated that more respondents from urban areas were having higher education as senior secondary (23.33%) and above graduation (40.00%) as compared to rural respondents having these qualifications as 11.67% and 18.33% respectively. Another difference was that 85% respondents in urban area were having nuclear type family and 56.67% were having up to 4 family members, whereas in rural areas, 61.67% were having joint families with 5-8 members (60.00%). More number of rural respondents were having farming as occupation (66.67%) whereas it was service in urban areas (46.67%). There was a wide gap in annual family income of rural and urban respondents.

### 3.2 Food habits of the rural and urban women

Eating habits and type of food items of particular area is greatly influenced by local conditions, soil type, urban contact, customs, rituals, traditions and interaction etc. Food habits have great impact on health of human beings. Efforts were made to know the consumption pattern of different food items and results are presented in Table 1. All of the rural and urban respondents were consuming wheat and other vegetables daily. The basic difference between the rural and urban consumption pattern was that more respondents of urban were daily consuming rice (70.00%) and fruits (86.67%) whereas daily consumption of these items in rural areas was 55.00 and 65.00 per cent respectively. The pearl millet was mainly consumed by rural respondents seasonally (85.00%). About 50% respondents in rural areas consumed roots and tubers daily, whereas about three fifth respondents from urban areas consumed it weekly. Egg and meat were never consumed by rural respondents whereas about 27% urban respondents consumed it. And as revealed by Ronzio (2004) <sup>[10]</sup>, women are usually vulnerable to malnutrition for both social and biological reasons, throughout their life cycle. Kaur and Sharma (2014) observed that 45.3 per cent farming families were not keeping any dairy animals and therefore, the milk availability was only 0.456 kg/d/family. Likewise, 40-45 per cent of farm women were suffering from lower backache in district Kapurthala of Punjab. Therefore, nutritional assessment is the systematic process of collecting and interpreting information in order to make decisions about the nature and cause of nutrition related health issues that affect an individual. The ultimate goal is to improve human health.

**Table 1:** Food habits of rural and urban women of Hisar district in Haryana. (n=120)

Food items	Rural					Urban				
	Daily	Weekly	Seasonally	Rarely	Never	Daily	Weekly	Seasonally	Rarely	Never
<b>Cereals</b>										
Wheat	60 (100)	-	-	-	-	60 (100)	-	-	-	-
Rice	33 (55.00)	27 (45.00)	-	-	-	42 (70.00)	12 (48.34)	-	06 (10)	-

Pearl millet	-	-	51 (85.00)	09 (15.00)	-	-	-	5 (8.33)	7 (11.67)	48 (80.00)
Maize	4 (6.66)	-	26 (43.33)	30 (50.00)	-	12 (20.00)	-	48 (80.00)	-	-
<b>Pulses</b>	13 (21.66)	35 (58.33)	-	02 (3.34)	-	38 (63.33)	22 (36.67)	-	-	-
Milk and milk products	50 (83.34)	06 (10.00)	02 (3.33)	2 (3.33)	-	50 (83.33)	03 (5.00)	-	7 (11.67)	-
Root and tubers	31 (51.67)	17 (28.33)	10 (16.67)	02 (3.33)	-	20 (33.34)	35 (58.33)	5 (8.33)	-	-
Green leafy veg.	-	15 (15.00)	42 (70.00)	03 (05.00)	-	-	22 (36.67)	38 (63.33)	-	-
Other veg.	60 (100)	-	-	-	-	60 (100)	-	-	-	-
Fruits	39 (65.00)	7 (11.37)	14 (23.33)	-	-	52 (86.67)	-	8 (13.33)	-	-
Fat and Oils	56 (93.33)	-	-	-	4 (6.67)	55 (91.67)	-	-	-	5 (8.33)
Sugar and jaggary	48 (80.00)	-	-	-	4 (6.67)	40 (66.67)	-	-	12 (20.00)	8 (13.33)
Egg and meat	-	-	-	-	60 (100)	-	4 (6.67)	10 (16.67)	2 (3.33)	44 (73.33)

Figures in parenthesis denote percentage

### 3.3 Knowledge of women about food and health aspects

The knowledge level of respondents about food and health aspects was assessed. For specific knowledge 17 questions were asked about specific knowledge like peanut/til/flex seeds are nutritious, fruits and vegetable provide energy, sprouted pulses are more nutritious, amla and citrus are rich source of

vit-C, one should use seasonal fruits, thin skin should be removed while peeling, sources of vitamins and minerals, etc. These statements were having true/false or fill in the blank answers. Specific knowledge was categorized as low (17-23 points), moderate (24-30) and high (>30 points). The results are presented in Table 2

**Table 2:** Knowledge of rural and urban women of Hisar district about food and health aspects. (n=120)

Type of knowledge	Level of knowledge (Rural)			Level of knowledge (urban)			Total
	Low	Moderate	High	Low	Moderate	High	
Specific knowledge	29(48.33)	18(30.00)	13(21.67)	13(21.67)	17(28.33)	30(50.00)	120(100)

Figures in parenthesis denote percentage

The results indicated that the specific knowledge of respondents about food and health aspects was somewhat higher among urban respondents as 50% respondents from urban were having high specific knowledge whereas only 21.67% rural respondents were having high level of specific knowledge. According to Swaminathan (1982) [14], good nutrition is a function of both economy and education.

### 3.4 Association of socio-economic variables with specific food & health knowledge of rural women

The association of specific knowledge of rural respondents with their socio-economic profile was analysed and presented

in table 3. The results indicated that specific knowledge of rural respondents about food and health aspect was significantly affected by all the socio-economic factors. In general, more percentage of rural respondents having high specific knowledge were from above 50 years' age group, scheduled caste, joint families, educated up to graduation, having medium land holding, service as family occupation and high socio-economic status and mass media exposure. Mainwal (2014) [5] observed that the women enjoyed freedom in education, marriage, family issues, political, economic and other such issues, increased awareness and education has inspired women to come out of walls of home.

**Table 3:** Association of socio-economic variables with specific food & health knowledge of rural women.

Socio-economic variables	Specific food & health knowledge level			Total	χ <sup>2</sup> value
	Low	Moderate	High		
<b>Age</b>					
Upto 35 years	18(78.26)	03(13.04)	02(08.70)	23(38.33)	20.99*
36-50 years	08(26.67)	14(46.67)	08(26.67)	30(50.00)	
Above 50	03(42.85)	01(14.28)	03(42.86)	07(11.67)	
<b>Total</b>	29(48.33)	18(30.003)	13(21.68)	60(100.0)	
<b>Caste</b>					
General	23(58.97)	13(33.33)	03(07.70)	39(65.00)	27.18*
Backward	03(37.50)	04(50.00)	01(12.50)	08(13.33)	
Scheduled caste	03(23.08)	01(07.69)	09(69.23)	13(21.67)	
<b>Family type</b>					
Nuclear	16(69.56)	05(21.74)	02(08.70)	23(38.33)	11.25*
Joint	13(35.14)	13(35.14)	11(29.73)	37(61.67)	
<b>Education of Respondent</b>					

Illiterate	04(44.44)	02(22.22)	01(11.11)	09(31.67)	38.56*
Upto Primary	16(88.88)	01(05.55)	01(05.55)	18(30.00)	
High School	04(26.67)	10(66.67)	01(06.67)	15(25.00)	
Sr. Secondary	03(42.86)	03(42.86)	01(14.28)	07(11.67)	
Graduation	02(18.18)	02(18.18)	07(63.64)	11(18.33)	
<b>Family occupation</b>					
Farming	19(47.50)	14(35.00)	07(17.50)	40(66.67)	31.29*
Labour	08(57.14)	02(14.28)	04(28.57)	14(23.23)	
Business (small enterprise)	00(00)	01(100)	00(00)	01(1.67)	
Service	2(40.00)	1(20.00)	2(40.00)	05(08.33)	
<b>Land holding</b>					
Landless	03(23.08)	08(61.54)	02(15.38)	13(21.67)	29.97*
Marginal	03(42.85)	02(28.57)	02(28.57)	07(11.67)	
Small	04(66.66)	01(16.67)	01(16.67)	06(10.00)	
Semi-medium	13(61.90)	06(28.57)	02(09.53)	21(35.00)	
Medium	06(46.15)	01(07.69)	06(46.15)	13(21.67)	
<b>Socio-economic status</b>					
Low	07(50.00)	04(28.57)	03(21.43)	14(23.33)	16.57*
Medium	19(52.78)	10(27.78)	07(17.94)	36(60.00)	
High	03(30.00)	04(40.00)	03(30.00)	10(16.67)	
<b>Mass-media exposure</b>					
Low	15(71.44)	03(14.28)	03(14.28)	21(35.00)	26.17*
Medium	10(34.48)	13(44.83)	06(20.68)	29(48.33)	
High	04(40.00)	02(20.00)	04(40.00)	10(16.67)	

Figures in parenthesis denote percentage \*Significant at 5% level of significance

### 3.5 Association of socio-economic variables with specific food & health knowledge of urban women.

The association of specific knowledge of urban respondents with their socio-economic profile was analysed and presented in table 4. The results indicated that specific knowledge of urban respondents about food and health aspect was significantly affected by all the socio-economic factors except family type. In general more percentage of urban respondents having high specific knowledge were from above 50 years

age group, scheduled caste, joint families, educated up to graduation, having small land holding, business as family occupation and high socio-economic status and mass media exposure. Vatsala *et al.*, (2017) [15] found that the three major factors that have an influence upon the nutritional status of women are levels of education, standards of living and social status. Status of anemia according to National Family Welfare Statistics, NFHS (2011) [8] is that 20.8% in India and 48.05% in Punjab are anemic.

**Table 4:** Association of socio-economic variables with specific food & health knowledge of urban women.

Socio-economic variables	Specific food & health knowledge level			Total	$\chi^2$ value
	Low	Moderate	High		
<b>Age</b>					
Upto 35 years	07(43.75)	04(25.00)	05(31.25)	16(26.67)	16.83*
36-50 years	03(12.00)	12(48.00)	10(40.00)	25(41.67)	
Above 50	03(15.79)	01(05.26)	15(78.95)	19(31.67)	
<b>Total</b>	13(21.67)	17(28.33)	30(50.00)	60(100)	
<b>Caste</b>					
General	10(21.74)	13(28.26)	23(50.00)	46(76.67)	20.73*
Backward	02(33.33)	02(33.33)	02(33.33)	06(10.00)	
Scheduled caste	01(12.50)	02(25.50)	05(62.50)	08(13.33)	
<b>Family type</b>					
Nuclear	12(23.53)	14(27.46)	25(49.01)	51(85.00)	03.23
Joint	01(11.11)	03(33.33)	05(55.55)	09(15.00)	
<b>Education of Respondent</b>					
Illiterate	01(33.33)	01(33.33)	01(33.33)	03(05.00)	23.88*
Upto Primary	02(20.00)	06(60.00)	02(20.00)	10(16.67)	
High School	02(22.22)	05(55.56)	02(22.22)	09(15.00)	
Sr. Secondary	04(28.57)	03(21.43)	07(50.00)	14(23.33)	
Graduation	04(16.67)	02(08.33)	18(75.00)	24(40.00)	
<b>Family occupation</b>					
Farming	08(72.72)	02(18.18)	01(09.09)	11(18.33)	45.36*
Labour	02(22.22)	04(44.44)	03(33.33)	09(15.00)	
Business (small enterprise)	02(16.67)	02(16.67)	08(66.67)	12(20.00)	
Service	01(03.57)	09(32.14)	18(64.8)	28(46.67)	
<b>Land holding</b>					
Landless	04(57.14)	02(28.57)	01(14.28)	07(11.67)	25.15*
Marginal	00(00)	02(100)	00(00)	02(3.33)	
Small	01(11.11)	01(11.11)	07(77.77)	09(15.00)	
Semi-medium	06(33.33)	05(27.77)	07(38.89)	18(30.00)	

Medium	02(08.33)	07(17.50)	15(62.50)	24(40.00)	
<b>Socio-economic status</b>					
Low	02(40.00)	01(20.00)	02(30.00)	05(08.33)	19.09*
Medium	07(38.88)	08(44.44)	03(16.67)	18(30.00)	
High	04(10.81)	08(21.62)	25(67.57)	37(61.67)	
<b>Mass-media exposure</b>					
Low	05(55.56)	02(22.22)	02(22.22)	09(15.00)	39.60*
Medium	02(15.38)	10(76.92)	01(07.69)	13(21.67)	
High	06(15.78)	05(13.16)	27(71.05)	38(63.33)	

### 3.6 Association of socio-economic variables with specific food & health knowledge of rural and urban women (combined).

The association of specific knowledge of respondents with their socio-economic profile was analysed and presented in table 5. The results indicated that specific knowledge about food and health aspect was significantly affected by education, service occupation, land holding, income, SES and mass media exposure. In general, more percentage of respondents having high specific knowledge were from above 50 years' age group, general caste, joint families, educated up

to senior and medium land holding, service as family occupation, high mass media exposure and belonging to high income group. Nagamani, (2014) [6] also reported that there is a need to develop a database on the diet and nutritional status of the adult women. It also called for nutritional intervention and educational programmes to educate rural young women. Singh *et al.* (2019) [12] also recommended that provision of education, employment and improving their socio economic status by the Government will lead to modification in the overall health scenario of the family, community, state as well as a country.

**Table 5:** Association of socio-economic variables with specific food & health knowledge of women (rural and urban combined).

Socio-economic variables	Specific food & health knowledge			Total	$\chi^2$ value
	Low	Moderate	High		
<b>Age</b>					
Upto 35 years	21(53.85)	08(20.51)	10(25.64)	39(32.5)	37.03*
36-50 years	18(32.74)	25(45.45)	12(21.81)	55(45.8)	
Above 50	03(13.04)	02(7.69)	21(80.77)	26(21.7)	
Total	42(35.00)	35(29.17)	43(35.83)	120(100)	
<b>Caste</b>					
General	30(35.29)	19(22.35)	36(42.35)	85(70.0)	20.48*
Backward	02(14.29)	11(78.57)	01(7.14)	14(11.67)	
Scheduled caste	10(47.62)	05(23.81)	06(28.57)	21(17.53)	
<b>Family type</b>					
Nuclear	33(44.60)	17(22.97)	24(32.43)	74(61.67)	8.24*
Joint	09(19.57)	18(39.13)	19(41.30)	46(38.33)	
<b>Education of Respondent</b>					
Illiterate	03(25.00)	06(50.00)	03(25.00)	12(10.00)	33.64*
Upto Primary	18(64.29)	05(17.86)	05(17.86)	28(23.33)	
High School	07(29.17)	12(50.00)	05(20.83)	24(20.00)	
Sr. Secondary	03(14.29)	02(9.52)	16(76.19)	21(17.50)	
Graduation	11(31.43)	10(28.57)	14(40.00)	35(29.17)	
<b>Family occupation</b>					
Farming	16(31.37)	08(15.69)	27(52.94)	51(42.50)	31.29*
Labour	01(4.34)	13(56.53)	09(39.13)	23(19.17)	
Business (small enterprise)	00(00)	01(7.69)	12(92.31)	13(10.83)	
Service	02(6.07)	04(12.12)	24(72.73)	33(27.50)	
<b>Land holding</b>					
Landless	07(35.00)	06(30.00)	07(35.00)	20(16.67)	47.57*
Marginal	09(100)	00(00)	00(00)	09(07.50)	
Small	02(13.33)	13(86.67)	00(00)	15(12.50)	
Semi-medium	15(38.46)	07(17.95)	17(43.59)	39(32.50)	
Medium	09(24.32)	09(24.32)	19(51.35)	37(30.83)	
<b>Socio-economic status</b>					
Low	12(63.16)	03(15.79)	04(21.05)	19(15.83)	22.11*
Medium	23(35.94)	25(39.06)	16(25.00)	64(53.33)	
High	07(18.92)	07(18.92)	23(62.16)	37(30.83)	
<b>Mass-media exposure</b>					
Low	21(70.00)	03(10.00)	06(20.00)	30(25.00)	36.06*
Medium	10(23.81)	22(52.38)	10(23.81)	42(35.00)	
High	11(22.92)	10(20.83)	27(56.25)	48(40.00)	

Figures in parenthesis denote percentage \*Significant at 5% level of significance

### 3.7 Health problems/disease faced by rural and urban women.

The respondents were asked to mention the most prominent

problem/disease from which they were suffering. It was found that main health problems of rural women were common disease (51.66%), infectious (18.33%), chronic (11.67%),

pregnancy and gynecological(6.67%), whereas respondents from urban area were suffering from infectious(47.62%), common(36.67%), chronic problems (20.00%) and psychological (15.00%). Rao *et al.* (2006) reported that inadequate dietary intakes, especially hidden hunger is responsible for the nutritional borne diseases. Lack of proper diet and nutrition impedes the growth and development of girls. It may lead to stunted growth and at a later stage they experience a higher risk of complications, particularly during and after child birth (Kowsalya and Manoharan, 2017) <sup>[4]</sup>.

#### 4. Conclusion

It was concluded that majority of urban and more than half of rural respondents were having high specific knowledge about food and health aspects. There was a significantly association between most of the socio-economic factors and knowledge level. It is suggested that specific knowledge about health and nutrition aspects must be imparted to rural as well as urban women. There is need to educate women on healthy life style by organizing awareness campaigns, trainings and workshops.

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