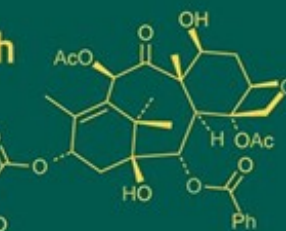
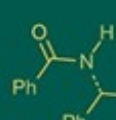


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Sania Mustafa

Department of Food Nutrition and Public Health, Ethelind College of Community Science, SHUATS, 211007, Prayagraj, Uttar Pradesh, India

Neerubala

Department of Food Nutrition and Public Health, Ethelind College of Community Science, SHUATS, 211007, Prayagraj, Uttar Pradesh, India

Tanushri Agrahari

Department of Food Nutrition and Public Health, Ethelind College of Community Science, SHUATS, 211007, Prayagraj, Uttar Pradesh, India

Effect of socioeconomic status on food consumption patterns of rural farm women in Hamirpur district (U.P)

Sania Mustafa¹, Neerubala², Tanushri Agrahari³

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ABSTRACT

Background: Indian women's health is significantly correlated with their standing in society, especially for those who live in rural areas. The study has focused on the effect of socioeconomic status and consumption pattern of farm women in Hamirpur district (U.P), based on the objective to assess the general information and socioeconomic status of farm women and to determine the food consumption and dietary pattern of farm women particular area are examined in terms of their socioeconomic traits and dietary practices.

Method: A total of 200 adult female farm laborers between the ages of 20 - 40 were chosen at random. Using a pretested questionnaire, the survey method was used to collect data from the selected respondents. The Kuppaswami scale (modified) was used to gauge the socioeconomic standing of families.

Result: According to the survey, a substantial number of these women are married, mostly live in joint families, middle-aged women in rural areas lack literacy skills due to socioeconomic limitations and lack of educational infrastructure. High unemployment rates and moderate incomes are prevalent. The study also highlights the complex interactions among demographics, socioeconomic status, and food preferences, emphasizing the need for targeted interventions to improve their wellbeing.

Keywords: Dietary pattern, Food consumption, Rural Farm women, Socioeconomic status

Research Scholar, Professor, Assistant Professor

Affiliation:

Department of Food Nutrition and Public Health, Ethelind College of Community Science, SHUATS, Prayagraj, India.

Introduction

Indian women's status in society is fundamentally linked to their health, particularly for those who reside in rural areas. It is not surprising that women's health varies significantly from state to state given the considerable difference in culture, religion, and economic development among various Indian States. Indian women make significant contributions to their families, but this is frequently forgotten, according to research on the standing of women in society. In the northern belt's rural communities, however, they are frequently seen as financial burdens, which is the prevalent opinion. Since health profiles are changing, the transition to better nutrition in low-income nations is now recognized as an emergent concern. (Popkin, 2008). India is an agrarian economy with about 54.6 percent of total workforce engaged in agricultural and allied sector activities (Census 2011). Women participate heavily in activities related to agriculture and related industries. Compared to urban women's involvement rate of 35.31 percent, rural women's participation rate in the labour is much higher at 41.8 percent (MoSPI, 2017). Economic progress is acknowledged to be significantly hampered by the existence of women who are under-empowered in the areas of the economy, politics, society, and knowledge. Their voices are suppressed because they lack the ability to work and earn a respectable living. The main means of empowering women are thought to be their economic independence or their ability to obtain an inherited or self-generated income. A key method for improving the welfare of the 60 million Indian households living in poverty is to increase women's economic productivity. (Sowmya et al., 2012). The rural population of India spends around 54% of its income exclusively on food. However, share of non-food consumption has increased relative to food in percentage spending on consumption across time as the researchers noticed. Moreover, it might observed that the food's various ingredients a basket filled with grains like rice and wheat has progressively decreased as a percentage of food consumption (Basole and Basu, 2015). One of the key determinants of population health and nutritional status is food consumption. Along with alcohol, tobacco, and a lack of physical exercise, poor food intake is the main risk factor for non-communicable diseases (NCDs). (Ezzati and Riboli 2013). Given its influence on a person's educational background, eating habits, and other lifestyle behaviour aspects, socioeconomic position is considered to be the primary factor determining their health state. (Cheng 2003). Additionally, socioeconomic

Corresponding Author:**Sania Mustafa**

Department of Food Nutrition and Public Health, Ethelind College of Community Science, SHUATS, 211007, Prayagraj, Uttar Pradesh, India

and demographic characteristics have a significant impact on the frequency of food and nutrient consumption. (**Rahman and Rao 2002**). In this study, this research aims to understand the numerous initiatives implemented to support rural farm women. The specific objectives of the study are-

- 1-To assess the general information and socioeconomic status of farm women.
- 2-To determine the food consumption and dietary pattern of farm women.

Materials and method

Study design: The present study on effect of socio-economic status on food consumption patterns of rural women was conducted in selected eight villages of Hamirpur district in Uttar Pradesh state. There are 7 block in Hamirpur District namely Gohand, Kurara, Maudaha, Muskara, Rath, Sarila, Sumerpur out of which four blocks were selected namely Kurara, Muskara, Rath and Sumerpur. From these selected blocks two villages from each block were randomly selected. In all the selected villages, agriculture was the main occupation of the population. Rural women from affluent families were found to be going for work on own farm whereas women from poor families were mostly doing wage work on others' farm as a daily wage. Total number of 200 adult farm women of aged between, 20-40 years were randomly selected from Hamirpur district (U.P).

Data collection- Survey method was adopted in order to collect the data from the selected respondents with the help of pretested questionnaire. The questionnaire included aspects which led to the fulfilment of the objectives of this study.

General profile- General profile includes the variables such as Population's Age, Sex, marital status, type of family, etc. All factors were assessed by questionnaire.

Nutritional Status- Diet survey constitute an essential part of any complete study of nutritional status of individuals or group, providing essential information on nutrient intake levels, sources of nutrients, food habits and attitudes (**Swaminathan, 2013**).

Measurement- The socio-economic status (SES) of families was assessed by using Kuppaswami Scale (modified), 1976 and **Ghosh and Ghosh (2009)**. In the modified scale, the educational and occupational criterion remains the same. However, to modify economic criteria, national urban consumer price index for India was noted for the year (2011-12) and the conversion factor between the index of 1976 and 2012 was determined. Subsequently, all the income groups in the scale were multiplied with the conversion factor to get appropriate income groups. The data on socio-economic status related to the age, education, and type of family, family size, occupation and land holdings and income of the family. Dietary pattern was assessed by 24 hour recall method for 7-days. Subsequently, the Individual consumption of nutrients like energy, protein, fat, iron, calcium, thiamine, riboflavin and niacin were calculated using food composition table and compared with the recommended dietary allowance (**Gopalan et al., 2020**).

Results and discussion

General information

General information includes the age of the respondents in years, family type whether nuclear or joint a respondent living in, marital status and gender of the respondent. Socio-economic characteristics of rural farm women were depicted in **Table 1**.

It was observed that 65.5 percent of farm women were in the medium age group (31-40), while 34.5 percent of farm women were in the young (20-30) age group. These findings are in line with the findings of **Zia-ud-Din et al., (2019)** who observed that majority of rural farm women were in the medium (31-40) age group. A majority of farm women, accounting for 55 percent, lived in joint family setups, while 45 percent resided in nuclear families. It meant that joint families were more in number than single families. Similar findings were reported by **Nivedita Tewari* & Amit Kumar Dwivedi**. The data further showed that 89.5 percent of the respondents were married, with the remaining 10 percent being unmarried. In terms of age distribution, 65 percent were adults, while 35 percent were children.

Table 1. Percent Distribution of the selected respondents according to general information.

Particulars	category	No.	percentage
Age (yrs)	20-30 yrs	69	34.5
	31-40 yrs	131	65.5
Family Type	Nuclear	90	45
	joint	110	55
Marital Status	Married	179	89.5
	Unmarried	21	10.5
Family Size (No.)	Adult	130	65
	children	70	35

Socioeconomic status

The socio-economic status (SES) of families was assessed by using Kuppaswami Scale (modified), 1976 and **Ghosh and Ghosh (2009)** regarding education levels, Socio-economic characteristics of rural farm women were depicted in **Table 2**. The survey found that 41.5 percent of the farm women were illiterate, meaning they could not read or write. Additionally, 20 percent held middle school certificates, 13 percent had high school certificates, 11.5 percent possessed primary school certificates, 9 percent had completed intermediate or obtained a diploma, and only 5 percent were graduates (with education beyond the 12th standard). The limited access to education for rural women was primarily attributed to low family socioeconomic status, lack of preparedness, and the scarcity of schools in their communities. These findings are in line with **Dr. Soma Srivastava and Dr. Bhagwan Singh (2014)**.

Regarding the occupation of the head of the family, the data showed that 52 percent of farm women had family heads who were unem-

ployed. Furthermore, 21 percent of the family heads were unskilled workers, 17 percent were semi-skilled workers, and 20 percent worked in clerical or shop-related positions. In terms of income distribution, 62.5 percent of farm women fell into the income range of rupees 7,102-11,836, followed by 14 percent in the income range of rupees 11,837-17,755. Thirteen percent of respondents had incomes between rupees 2,391-7,101, and 9 percent earned between rupees 17,756-23,673. Only 1.5 percent of respondents reported a high income range of rupees 23,674-47,347. The finding of the present study agreed with the findings of **Nivedita Tewari* & Amit Kumar Dwivedi**.

When assessing socioeconomic status or classes based on the calculated points from the Kuppaswami classification categories, the results indicated that 7.5 percent of respondents belonged to the upper class, 11 percent were in the upper-middle class, and 24.5 percent were in the lower-middle class. Additionally, 14.5 percent were classified as upper-lower class, while the most significantly affected group

was the lower socioeconomic class, comprising 42.5 percent of the respondents.

Table 2. Percent Distribution of the selected respondents according to Socioeconomic status.

Particulars	category	No.	percentage
Education of the Head	Professional degree	0	0
	Graduate	10	5
	Intermediate/Diploma	18	9
	High School	26	13
	Middle School	40	20
	Primary School	23	11.5
	Illiterate	83	41.5
Occupation of the head	Professional	0	0
	Semi profession	0	0
	Clerical/shop/farm	20	10
	Skilled worker	0	0
	Semiskilled worker	34	17
	Unskilled worker	42	21
	Unemployed	104	52
Family Income /Month in Rupee	Rs 47348 and above	0	0
	Rs 23674-47347	3	1.5
	Rs 17756-23673	18	9
	Rs 11837-17755	28	14
	Rs 7102-11836	125	62.5
	Rs 2391-7101	26	13
	Less than 2390	0	0
Socioeconomic class	Upper (I)	15	7.5
	Upper Middle(II)	22	11
	Lower Middle (III)	49	24.5
	Upper lower(IV)	29	14.5
	Lower (V)	85	42.5

Food consumption pattern of farm women

Food habits of the rural families are shown in Table 3. It is important to have a detailed knowledge regarding the diets actually eaten by the respondents both for assessing their nutritional adequacy and taking steps for correcting deficiencies in the diets.

In the present study, ICMRs 24 hour recall method was used to gather information about foods consumed in one day further each woman was interviewed about the dietary pattern, frequency of food preparation, frequency of food intake the quality and quantity of food consumed was taken. The data collected from farm women showed that all of them eat cereals every day.

However, only about one-third of them include pulses in their daily diet. Among different social groups, the upper class eats more pulses, while the lower class eats them less often. Many rural respondents eat pulses only 1-2 times a week. When it comes to roots and tubers, 66%

of all respondents eat them daily, mostly from the upper class. For milk and milk products, 58% eat them every day, but 10% never do. Green leafy vegetables are only eaten 1-2 times a week by 75% of respondents. Other vegetables are consumed daily by 34% of individuals, with differences among social groups. Fruits are eaten daily by 11%, occasionally by 42%, and never by 10%. Meat and meat products are rarely consumed. Fat and oil are eaten daily by everyone. Sugar and jaggery are included in daily meals by 66%, occasionally by 10%, and 25% eat them 5-6 times a week. Some rural respondents eat fast food occasionally (85%), while others never do (7%). In terms of milk preference, cow's milk is favored by 72.5%, buffalo milk by 19.5%, and goat milk by 8%, with variations among social groups. Some consume alcohol sometimes (62.5%), while others rarely do (37.5%). Overall, the data shows how people's eating habits are influenced by their income and lifestyle.

Table 3. Percent Distribution of the selected respondents according to food consumption of farm women.

Socioeconomic class	FOOD GROUP					
	Daily	1 to 2 times /week	3 to 4 Time/wee k	5 to 6 times/week	Occasiona lly	Never
CEREALS						
Upper	15(100)	-	-	-	-	-
Upper middle	22(100)	-	-	-	-	-
Lower middle	49(100)	-	-	-	-	-
Upper lower	29(100)	-	-	-	-	-
lower	85(100)	-	-	-	-	-
TOTAL	200(100)	-	-	-	-	-

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FOOD GROUP						
PULSES						
Upper	14(93)	-	-	1(7)	-	-
Upper middle	18(82)	-	2(9)	2(9)	-	-
Lower middle	6(12)	35(71)	8(16)	-	-	-
Upper lower	19(66)	2(7)	3(10)	5(17)	-	-
lower	10(11)	31(36)	32(38)	12(14)	-	-
TOTAL	67(33.5)	68(34)	45(22.5)	20(10)	-	-
ROOTS AND TUBER						
Upper	12(80)	-	-	3(20)	-	-
Upper middle	15(68)	1(5)	3(14)	3(14)	-	-
Lower middle	34(69)	6(12)	3(6)	6(12)	-	-
Upper lower	18(62)	5(17)	6(21)	-	-	-
lower	52(61)	9(11)	18(21)	6(7)	-	-
TOTAL	131(66)	21(11)	30(15)	18(9)	-	-
MILK AND MILK PRODUCTS						
Upper	15(100)	-	-	-	-	-
Upper middle	15(68)	2(9)	4(18)	1(5)	-	-
Lower middle	28(57)	11(22)	7(14)	3(6)	-	-
Upper lower	10(34)	4(14)	5(17)	-	-	10(34)
lower	48(56)	9(11)	14(16)	4(5)	-	10(12)
TOTAL	116(58)	26(13)	30(15)	8(4)	-	20(10)
GREEN LEAFY VEGETABLE						
Upper	-	2(13)	13(87)	-	-	-
Upper middle	-	12(55)	10(45)	-	-	-
Lower middle	-	40(82)	9(18)	-	-	-
Upper lower	-	24(83)	5(17)	-	-	-
lower	-	71(84)	14(16)	-	-	-
TOTAL	-	149(75)	51(26)	-	-	-
OTHER VEGETABLE						
Upper	10(67)	-	4(27)	1(7)	-	-
Upper middle	8(36)	-	5(23)	9(41)	-	-
Lower middle	12(24)	7(14)	17(35)	13(27)	-	-
Upper lower	14(48)	5(17)	5(17)	5(17)	-	-
lower	24(28)	22(26)	14(16)	25(29)	-	-
TOTAL	68(34)	34(17)	45(23)	53(27)	-	-
FRUITS						
Upper	6(40)	3(20)	3(20)	3(20)	-	-
Upper middle	4(18)	8(36)	5(23)	-	5(23)	-
Lower middle	3(6)	20(41)	10(20)	-	10(20)	6(21)
Upper lower	2(7)	15(52)	5(17)	-	5(17)	6(21)
lower	7(8)	38(45)	8(9)	7(8)	10(12)	8(9)
TOTAL	22(11)	84(42)	33(17)	11(6)	30(15)	20(10)
MEAT AND MEAT PRODUCT						
Upper	-	1(7)	-	-	4(27)	10(67)
Upper middle	-	7(32)	-	-	4(18)	11(50)
Lower middle	-	5(10)	-	-	6(12)	38(78)
Upper lower	-	5(17)	-	-	7(24)	17(59)
lower	-	15(18)	-	-	5(6)	65(76)
TOTAL	-	33(16.5)	-	-	26(13)	141(70.5)
FAT AND OIL						
Upper	15(100)	-	-	-	-	-
Upper middle	22(100)	-	-	-	-	-
Lower middle	49(100)	-	-	-	-	-
Upper lower	29(100)	-	-	-	-	-
lower	85(100)	-	-	-	-	-
TOTAL	200(100)	-	-	-	-	-

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FOOD GROUP						
SUGAR AND JAGGERY						
Upper	7(47)	-	3(20)	5(33)	-	-
Upper middle	15(68)	-	-	7(32)	-	-
Lower middle	33(67)	-	4(8)	12(24)	-	-
Upper lower	19(66)	-	2(7)	8(28)	-	-
lower	57(67)	-	11(13)	17(20)	-	-
TOTAL	131(66)	-	20(10)	49(25)	-	-
FAST FOOD CONSUMPTION						
Upper	-	5(33)	-	8(53)	-	2(13)
Upper middle	-	14(64)	-	6(27)	-	2(9)
Lower middle	-	46(94)	-	2(4)	-	1(2)
Upper lower	-	27(93)	-	0(0)	-	2(7)
lower	-	78(92)	-	0(0)	-	7(8)
TOTAL	-	170(85)	-	16(8)	-	14(7)
FRUIT JUICE AND SOFT DRINK CONSUMPTION						
Upper	-	2(3)	13(87)	-	-	-
Upper middle	-	7(32)	15(68)	-	-	-
Lower middle	-	24(49)	25(51)	-	-	-
Upper lower	-	19(66)	10(34)	-	-	-
lower	-	47(55)	38(45)	-	-	-
TOTAL	-	99(49.5)	101(50.5)	-	-	-

Dietary pattern of farm women

Food habits of the rural families are shown in Table 4. It was observed that 4% followed an eggitarian diet, 24% were non-vegetarians, and the majority, 72%, were vegetarians. When it came to meat consumption, 16.5% ate meat and meat products 1-2 times a week, 13% did so occasionally, while 70.5% never included meat in their diet. In terms of meal patterns, 51.5% had two meals a day, 40.5% had three meals, and only 8% had four meals. Socioeconomic differ-

ences played a role, with the lower group having an 88% rate of two meals, the upper-middle group having a 14% rate, the upper-middle group having a 68% rate of three meals, and the upper group having a 33% rate of four meals. Regarding milk, 72.5% preferred cow's milk, with lower and lower-middle groups consuming more. 19.5% liked buffalo milk, especially in the upper and upper-middle groups, while 8% opted for goat milk, primarily in the upper and lower socioeconomic groups. These findings provide insights into dietary choices and meal habits in rural areas.

Table 4. Percent Distribution of the selected respondents according to dietary pattern of farm women.

FOOD PATTERN			
FOOD HABITS			
Socioeconomic class	Vegetarian	Non vegetarian	Eggitarian
Upper	5(33.3)	8(53.3)	2(13.3)
Upper middle	11(50)	8(36.3)	3(13.6)
Lower middle	42(86)	7(14)	0(0)
Upper lower	17(59)	10(34)	2(7)
lower	70(82)	10(12)	5(6)
TOTAL	144(72)	48(24)	8(4)
FREQUENCY OF NON VEG CONSUMPTION			
Socioeconomic class	Weekly once/twice	Occasionally	Never
Upper	1(7)	4(27)	10(67)
Upper middle	7(32)	4(18)	11(50)
Lower middle	5(10)	6(12)	38(78)
Upper lower	5(17)	7(24)	17(59)
lower	15(18)	5(6)	65(76)
TOTAL	33(16.5)	26(13)	141(70.5)
NUMBER OF MEALS CONSUMED PER DAY			
Socioeconomic class	2 meals	3 meals	4 meals
Upper	0(0)	10(67)	5(33)
Upper middle	3(14)	15(68)	4(18)
Lower middle	17(35)	29(59)	3(6)
Upper lower	8(28)	17(59)	4(14)

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FOOD PATTERN			
lower	75(88)	10(12)	0(0)
TOTAL	103(51.5)	81(40.5)	16(8)
TYPES OF MILK CONSUMED			
Socioeconomic class	Cow milk	Buffalo milk	Goat milk
Upper	6(40)	6(40)	3(15)
Upper middle	15(68)	5(23)	2(9)
Lower middle	36(73)	10(20)	3(6)
Upper lower	20(69)	6(21)	3(10)
lower	68(80)	12(14)	5(6)
TOTAL	145(72.5)	39(19.5)	16(8)

Conclusion

The socio-demographic, economical, and dietary traits of farm women in the study area are clarified by this extensive study. It demonstrates that the majority of these women were married, in joint families, and of a middle age. Family heads frequently encounter unemployment, there is a sizable population that is illiterate, and education levels vary. With a sizable representation in the lowest socioeconomic classes, income is mainly concentrated in the middle range. There are differences in eating patterns between social groupings, with fewer people consuming pulses but more people consuming roots, milk, and vegetables. The study highlights the complex interactions among these farm women demographics, socioeconomic status, and food preferences, emphasizing the need for focused interventions to improve their wellbeing.

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