# **Research Article**

# SOCIO ECONOMIC STATUS AND NUTRITIONAL STATUS OF FARM WOMEN IN BANASKANTHA DISTRICT OF GUJARAT

### JOSHI S.\* AND PATEL B.G.

Department of Food Science and Nutrition, ASPEE College of Home Science & Nutrition, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, 385505, Gujarat, India

\*Corresponding Author: Email - jsumit291@gmail.com

Received: November 02, 2019; Revised: November 26, 2019; Accepted: November 27, 2019; Published: November 30, 2019

Abstract: The present study was undertaken to observe the nutritional and health status of farm women in Banaskantha District of North Gujarat. One thousand two hundred fifty farm women were included in the present investigation. The farm women belonged to nuclear family and had small family size. The educational status of farm women was low and engaged largely on agricultural labour work, had very less annual income and lived in Kachcha house. Apart from the diet, low socio-economic status and poverty, high level of illiteracy, physical work load, unavailability of different foods, ignorance and superstitions, lack of medical facilities, lack of use of modern contraceptives.

**Keywords:** Socio economic, Anthropometric measurements, Dietary

Citation: Joshi S. and Patel B.G. (2019) Socio Economic Status and Nutritional Status of farm women in Banaskantha District of Gujarat. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 11, Issue 22, pp.- 9220-9222.

**Copyright:** Copyright©2019 Joshi S. and Patel B.G. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Academic Editor / Reviewer: Axaykumar Babulal Joshi, Mitul Patel, Dr Mehul Shrimali, Dr Gopal Shankla, Medini Ibrahim, Dr Sunil Doley, Dr Narendra Swaroop

### Introduction

Women are the backbone of the agricultural sector and constitute about 70% of the agricultural labour force in the rural sector, producing 60 to 80 percent of the food in developing countries (and 50 percent worldwide). Rural women constitute an overwhelming majority of women in developing countries [1]. About two third of the manual labour in farming is constituted by rural women. Irrespective of their degree of affluence, they provide 14 to 18 hour of productive physical labour every day in a wide variety of activities directly connected with agriculture, allied and domestic chores [2].

## **Objectives**

- 1. Socio-economic profile of farm women
- 2. Nutritional Status of farm women
- 3. Dietary pattern of farm women

# Methodology

Methodology means description, explanation and justification of methods. A method is a tool or a technique used to collect data. It is the procedure of obtaining knowledge based on empirical observations and logical reasonings. As stated by Ahuja (2005), methodology is a plan and procedure for carrying out the research [3]. It refers to research techniques and strategies for obtaining valid information and it is an approach to understanding phenomenon. In short, methodology refers to philosophy on which research is based. Study was conducted in the areas of Banaskantha district Gujarat state, which was selected by purposive sampling method. A separate list of the villages falling under the Banskantha district was prepared. The detail information regarding the Out of total 508 villages in six selected talukas, a total of 50 villages were selected proportionate randomly. Respondents were selected on the basis of information provided by village and anganwadis worker.

Nutritional status was assessed by using the following methods.

Anthropometric measurements

- (A) Height
- (B) Weight

(C) BMI

Diet survey of farm women

#### Results

The present study entitled "Socio-economic and Nutritional status of farm women in Banaskantha District of Guiarat" was carried out to appraise the nutritional profile of farm women and their interdependency and also the extent of influence of various factors on the above parameters. It was found that majority (68.20%) of the farm women belonged to the age group of 36 to 55 years followed by the age group of above 55 years (28.30 %) and only 03.50 percent were in the age group of 18 to 35 years respectively. It could be seen that nearly (41.40 %) of farm women had Illiterate education at all while (36.00%) of the women had education till primary level. Another interesting observation of the study is that some of the women had the education till secondary and higher secondary (16.40%) and beyond viz., above higher (6.20%). As the depicts majority (77.10 %) of the farm women belonged to nuclear family system while joint family system was seen only among (22.90%) subjects. Most of the families included in the study had 5 to 8 members (67.80%). Even small family with four members (28.20%) also existed in this area. Another important observation is that extended family concept with large number of family members is also observed in miniscule proportion (04.00%). Majority of the 99.20 percent women belonged to Hindu while only 00.80 percent of women were Muslim. 73.80 percent of farm women belonged to OBC, 02.40 percent women belonged to general category, 09.50 percent were SC and 14.30 percent were ST. the family of farm women had medium income, i.e. Rs. 50,000 to Rs. 100,000 Remaining families of farm women had less than Rs. 50000 (30.90 %) or more than Rs 100000 (22.00 %) income per annual. It shows that nearly half (47.10 %) of the family of farm women had 2 to 9 ha. of land who have been considered medium farmer while the family of farm women who had less than 2 ha. were considered to be small farmer and were having approximately (30.90%) of land. The family with more than 10 or above ten was only (22.0%) which is considered as big farmer farm women (76.20 %) had Socio

||Bioinfo Publications|| 9220

Kachcha house with no basic facility of water, sanitation, inadequate lighting and ventilation. Only very small proportion of farm women (23.80 %) had Pakka house with very little facilities Since most of the houses are located in the unhygienic environment, mostly low-lying areas, and the chances of water stagnation is more, which was quite evident in the present study.

Table-1 Socio-economic profile of farm women

rable-i Socio-economic profile of famil women			
Particulars	Frequency (1250)	Percentage (100 %)	
AGE			
18 to 35	44	3.5	
36 to 55	852	68.2	
Above 55	354	28.3	
Level of Education			
Illiterate	518	41.4	
Primary	450	36	
Secondary and higher secondary	205	16.4	
Above higher	77	6.2	
Type of family			
Joint family	286	22.9	
Nuclear family	964	77.1	
Size of family			
Small (up to 4 members)	353	28.2	
Medium (5-8 members)	847	67.8	
Extended (above 8 members)	50	4	
Religion			
Hindu	1240	99.2	
Muslim	10	0.8	
Caste			
General	30	2.4	
SC	119	9.5	
ST	179	14.3	
OBC	922	73.8	
Annual income (Rs)			
Low (< 50,000)	386	30.9	
Medium (50,000 to 1,00,000)	589	47.1	
High (> 1,00,000)	275	22	
Size of land			
Small farmer (≥ 1.00 to 1.99 ha)	386	30.9	
Medium farmer (2.00 to 9.99 ha)	589	47.1	
Big farmer (> 10.00 ha)	275	22	
Housing condition	-: •		
Kachcha house	952	76.2	
Pakka house	298	23.8	
T dittid House	230	20.0	

# **Nutritional Status of Farm women**

Table-2 Anthropometric measurements

Table-2 Antinopolitettic measurements				
Anthropometric measurement	Frequency	Percentage		
Height: (cm)				
< 145	100	8		
145 to 155	726	58.1		
>155	424	33.9		
Weight: (kg)				
< 40	219	17.5		
40 to 50	648	51.8		
> 50	383	30.6		
Body Mass Index (BMI)				
Low weight <18.5	730	58.4		
Normal 18.5-25	406	32.5		
Obese grade I 25-29.9	114	9.1		

That the maximum 58.10 percent of the farm women had the height in between 145 to 155 cm and 33.90 percent farm women were found to have height above 155 cm while, only 08.50 percent farm women had the height below 145 cm. Further, it was also observed that maximum 51.80 percent farm women had body weight in between 40 to 50 kg while 30.60 percent farm women had weight above 50 kg. Only 17.50 percent of the farm women had body weight below 40 kg, BMI classification, approximately. 58.40 percent farm women were having low weight, while 32.50 percent of farm women had normal weight and 09.10 percent of farm were obese (grade I).

### General pattern of dietary habits of the farm women

It can be seen from the data presented that a majority 83.30 percent of farm women were vegetarian and only 16.70 percent were non-vegetarian.

Table-3 Food habit of farm women

Food habit	Frequency	Percentage
Vegetarian	1041	83.3
Non-vegetarian	209	16.7
Total	1250	100

Table-4 Percentage of farm women according to food consumption

Food	Daily	Twice	Once	Monthly		Never
products	(%)	a week (%)	a week (%)	(%)	or seasonally (%)	(%)
Cereals	100	-	-	-	-	-
Pulses	-	22.75	37.47	39.78	-	-
Green leafy vegetables	-	12.5	-	27.25	60.25	-
Other vegetables	24.75	9.5	25.5	40.25	-	-
Roots and tubers	37	22.5	4	4.75	31.75	-
Fruits	-	14.5	13.75	21.5	50.25	-
Milk and milk products	71	13.5	10.5	5	-	-
Fats and oils	100	-	-	-	-	-
Sugar and Jaggery	45.5	54.5	-	-	-	-
Preserved and processed foods	-	-	0.75	36.5	2.25	60.5
Fast foods	-	17	20.5	37	-	25.5
Meat and meat products	-		-	16.7	-	83.3

Indicates wheat, baira and maize that all farm women 100 % consumed it was found that among the cereals, were consumed daily by the farm women. None of the farm women consumed pulses daily, 22.75 percent consumed twice a week, 37.47 percent once a week and 39.78 percent consumed it monthly such as green gram and black gram. that only 12.50 percent farm women consumed green leafy vegetable twice in week, 27.25 percent of the subjects consumed once in a month and 60.25 percent have reported that the consumption of the green leafy vegetables mainly depends upon its availability during various seasons that majority 09.50 percent of the farm women consumed twice a week, 25.50 percent once a week, 24.75 percent consumed regularly on daily basis and 40.25 percent consumed monthly. The 37.00 percent farm women consumed daily, 22.50 percent twice a week, 04.00 percent once in month, 04.75 percent it consumed once in a week and 31.75 percent consumed whenever it is available during the seasons. The results of the study indicated that 50.25 percent consumed fruits during season, 21.50 percent once in a month, 13.75 percent twice a week and 14.50 percent consumed once a week. The low consumption of the fruits among farm women. 71.00 percent women consumed it daily, 13.50 percent twice a week and 10.50 percent consumed it once a week and 05.00 percent consumed it monthly, that all farm women (100 percent) used oil in various cooked food preparations and consumed it daily. Sugar and Jagery 45.50 percent women consumed them daily and 54.50 percent consumed twice a week that 60.00 percent did not consume any preserved or processed foods, while 36.50 percent consumed it once in a month, 00.75 percent consumed once a week and 2.25 percent consumed occasionally or seasonally. Thirty seven percent consumed it monthly, 20.50 percent once a week, 17.00 percent twice a week and 25.50 percent never consumed. The consumption of meat and meat products indicates that 16.70 percent consumed it monthly.

# Correlation between the socio-economic status and nutritional status of farm women

Table-5 Co-efficient correlation between the socio-economic status and nutritional status of farm women

Name of variables	Coefficient correlation 'r' value
Age	0.083**
Caste	-0.035 <sup>NS</sup>
Religion	-0.087**
Family type	0.084**
Family size	0.128**
Women's education	-0.069*
Size of land holding	-0.057*
Annual income	0.035 <sup>NS</sup>
Type of house	0.015 <sup>NS</sup>

The result of coefficient correlation between the socio-economic status, nutritional and health status is shown in [Table-5]. The result indicated that correlation coefficient between age, religion, family type and family size were highly-significant (P<0.01) for the socio-economic, and nutritional status of farm women. However, women's education and size of land holding were significant (P<0.05) effect in the present study. The result of correlation coefficient of BMI with different independent variable which indicated that the respondent age increasing with BMI also increasing. The coefficient correlation between religion and BMI was -0.087 which indicated that as compound to Hindu Muslim religions having higher BMI. Family type and family size coefficient correlation were found 0.084 and 0.128\*\* respectively, which shows that member increasing in family which increasing the BMI due to awareness of farm women.

#### Conclusion

The present study was undertaken to observe the nutritional and health status of farm women in Banaskantha District of North Gujarat. One thousand two hundred fifty farm women were included in the present investigation. The farm women belonged to nuclear family and had small family size. The educational status of farm women was low and engaged largely on agricultural labour work, had very less annual income and lived in Kachcha house. The results of the present study thus, reveals that farm women of this area are still living in state of nutritional deprivation. Importance of nutrition education and family planning to the farm women should be given for improving their socioeconomic and nutritional status.

**Application of research:** The farm of Banaskantha district had poor anthropometric measurements, poor dietary intakes which lead to poor nutritional status.

Research Category: Food Science and Nutrition

Acknowledgement / Funding: Authors are thankful to Department of Food Science and Nutrition, ASPEE College of Home Science & Nutrition, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, 385505, Gujarat, India

# \*Research Guide or Chairperson of research: Prof Dr B G Patel

University: Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, 385505, Gujarat, India Research project name or number: PhD Thesis

Author Contributions: All authors equally contributed

**Author statement:** All authors read, reviewed, agreed and approved the final manuscript. Note-All authors agreed that- Written informed consent was obtained from all participants prior to publish / enrolment

Study area / Sample Collection: Banaskantha District of Gujarat

Cultivar / Variety / Breed name: Nil

Conflict of Interest: None declared

**Ethical approval:** This article does not contain any studies with human participants or animals performed by any of the authors.

Ethical Committee Approval Number: Nil

#### References

- [1] Census (2011) www.census.co.in/census/district/134-guntur.html. Accessed on 14th March, 2016.
- [2] Manju Suman (2002) Maharashtra Journal of Extension Education, 21(1), 105-106.
- [3] Ahuja R. (2005) Research methods. Rawat Publications, Delhi, 41, 179