



Nutritional Status and Dietary Pattern of Farm Women in Jodhpur District of Rajasthan

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Abstract: The health of Indian women is intrinsically linked to their status in society and good health is essential for wellbeing of households. The present study was conducted in Jodhpur district of Rajasthan to study nutritional status and dietary pattern of the farm women during 2015-2017. The 41% farm women families own medium size land holdings and 75% families were nuclear. The 65% farm women have normal body mass index {(BMI (18.5-25)}. The 55% farm women were having normal nutritional status whereas 16% and 19% were under weight and overweight, respectively. The finding of the study also showed that about 59% were between 31-50 years of age and majority (92%) were illiterate.

Key words: Nutrition, diet pattern, farm women.

Women power contribute significantly to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as "economically active employment" but they are essential for the wellbeing of rural households.

The National Family Health Survey (NFHS) Rajasthan has concluded after its survey that 49% women are anemic to different degrees-32% mildly ($10-10.9 \text{ g dl}^{-1}$), 14% moderately anemic ($7.0-9 \text{ g dl}^{-1}$) and 2% severely anemic (less than 7.0 g dl^{-1}). Rural women are relatively more anemic (49%) than urban (47%). Fifty eight percent of women in southern Rajasthan are anemic. Age wise, the most anemic are those in the 15-19 years age group in which 53.9% were found anemic. Out of them 2.4% were severely anemic (NFHS India Rajasthan). Nutritional status of an individual is normally assessed by

anthropometry, which includes height, weight and other body measurements. The information on height throws light on the past nutritional status, while body weight gives an indication of the current nutritional status. Body mass index (BMI) is assessed by calculating the ratio of body weight and height so as to classify them into groups depending on their nutritional status.

Hence, the issues of nutritional concerns and role of women have emerged as global concerns. This study therefore seeks to investigate and highlight female farmers' nutrition status in the study area.

Objectives

This study was conducted to assess the nutritional status of farm women, with following specific objectives:

- To assess the socio-economic and nutritional status of the farm women.
- To study the dietary pattern of the farm women.

Methodology

The study was conducted under Integrated Farming System project during 2015-2017. Three villages of Bhopalgarh tehsil of Jodhpur district namely, Nagalwas, Palri Ranawata and Asanda were selected. Data were collected by recording through the pre-tested interview schedule. All the respondents were interviewed personally

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by the investigator at work spot, which enabled her to get the first hand information. In the present study, socio-economic status of farm women, anthropometric measurement and daily food intake of the respondents were calculated. Body height (cm) and weight (kg) were the two anthropometric measurements recorded for all the sample women by using standard procedures, to find out health status of the respondents, the BMI was calculated as ratio of weight (kg) and height² (cm) BMI. It provides a reasonable indication of the nutritional status of adults, which has good correlation with the fatness and is also a indicator of health risks.

The BMI cut off values commonly applied for adults are

BMI = < 18.5 = Underweight; 18.5-25 = Normal; 25-30 = Overweight; >30 = Obesity

Nutritional and health status of all selected 100 women were assessed by determining the intake of foods and nutrients. As per the advice of nutritionist 24 hours recall method was used for recording data regarding nutrient intake. The respondents were asked which food items she consumed the day before since morning tea through dinner. Frequencies and percentage were calculated for statistical analysis.

Results and Discussion

General parameters of sample populations such as age, education, caste, size of land holding and family type have been presented in Table 1.

The distribution of sample population showed that 59% were between 31-50 years of age while 34% were between 18-30 years and 7% were above 50 years of age. The educational status of women was quite low with 92% had not attended school and were illiterate and only 8% of women were literate. As per the caste distribution, 67% were in other backward caste category, while 28% in schedule caste and only 5% were in general category. According to land size based classification majority of women belonged to medium farmer category (41%) while 28% were in semi medium and 14% in small category, 13% in marginal category and only 4% belonged to large land holding size. The nuclear family system was predominant in

Table 1. Socio economic characteristics of farm women (n=100)

Socio-economic characteristics	Category	Percentage
Age	18-30	34
	31-50 years	59
	> 50 years	7
Education	Illiterate	92
	Literate	8
Caste	General	5
	OBC	67
	SC	28
Land holding size	Large (> 10 ha)	4
	Medium (4-10 ha)	41
	Semi-medium (2-4 ha)	28
	Small (1-2 ha)	14
	Marginal (< 1 ha)	13
Family type	Nuclear	75
	Joint	25

these villages as 75% were in nuclear and 25% were living in joint family system.

Nutritional Assessment of the Farm Women

The anthropometric measurements of the selected respondents as presented in Table 2 reflects that 16% farm women were underweight and 19% were overweight and more than half of the farm women were normal (65%) based on their BMI.

Table 2. Body Mass Index (BMI) (n=100)

BMI cut-off	Weight status	Frequency	Percentage
<18.5	Under weight	16	16
18.5-25	Normal	65	65
25-30	Over weight	19	19
>30	Obese	0	0

Table 3 showed that the selected women were categorized in three age groups to understand the severity of under malnutrition. Out of 16% farm women which were underweight 50% belonged to age group 18-30 while remaining 50% were belonged 31-50 years age. Similarly, overweight was predominantly in 31-50 years of age group. Thus, nutritional issues need to be addressed primarily in young and middle aged farm women in these three villages of Bhopalgarh Tehsil.

Table 3. Nutritional status of farm women of different age groups

Age groups	Under weight (<18.5) (%)	Normal (18.5-25) (%)	Over weight (25-30) (%)	Total
18-30 yrs	8	23	3	34
31-50 yrs	8	38	13	59
>50 yrs	0	4	3	7
Total	16	65	19	100

Daily Intake of Food by the Respondents

Cent per cent women consumed cereals, pulses and legumes and 92% of them were found to be consuming milk and milk products (Table 4). The results in case of cereals are in line with those of Ramnath *et al.* (1993), Bhalerao (2002) and Jha (1994). The result in case of consumption of pulses is similar to Bhalerao (2002). The daily consumption of nuts and oilseeds was found only by 7% of the selected women but majority of them (86%) were consuming fats and oils daily (Singh, 2004). Only 12% of the women were consuming fruits but not regularly or frequently. The same case was found with consumption of vegetables as 76% women consumed root and green leafy and other vegetables. Only 3% of the women were consuming meat products and eggs. They reported that they were not consuming these items frequently due to social taboo and also high cost of the product and their less purchasing power.

In general the nutrient intake of the selected women was normal or satisfactory (WHO) due

Table 4. Daily intake of foods by the farm women

Particulars	Percentage
Cereals	100
Pulses and legumes	100
Vegetables	76
Nuts and oil seeds	7
Fats and oil	86
Milk and milk products	92
Meat, fish, egg (not frequently)	3
Fruits (not Frequently)	12

to the fact that almost hundred per cent women consumed cereals, pulses and legumes daily, while near about three fourth of the women consumed fats and oil seeds and milk and milk products daily. The findings of present study corroborates with the finding of the result of Kale *et al.* (1999) who reported that most of the respondents had fair nutritional status.

Conclusions

Thus, it can be concluded that sixty five per cent farm women had normal BMI (18.5-25) with highest percentage (38%) in age group of 31-50 years. The nutrient intake of the selected women was also satisfactory.

References

- Bhalerao, V.S. 2002. Impact of working status on dietary pattern and nutritional status of rural women. *Ph.D. Thesis* submitted to Swami Ramanand Teerth Marathwada University, Nanded.
- Jha, A. 1994. Nutritional and health status of selected women (30-50 yrs) of Parbhani town. *M.Sc. Thesis*, College of Home Science, MAU, Parbhani.
- Kale, Manisha, Ghalol, Kalpana and Virkhare, Vaishali 1999. Factors associated with nutritional status of postgraduate girl students. *Maharashtra Journal of Extension Education* XVIII, pp. 306-307.
- Ramnath, T., Ganguly, K.K., Mahapatra, A., Yadav, S.P. and Pandey, R.M. 1993. Dietary intakes, knowledge of people about the disease and nutritional disorders in two desert districts of Rajasthan. *Annals of Arid Zone* 33: 59-62
- Singh, M.B. 2004. Anthropometric assessment of the nutrition in female children of Thar Desert of Rajasthan. *Annals of Arid Zone* 43: 199-03.

