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Dietary Pattern of Farm Women Enterpruners in Hassan District of Karnataka

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ABSTRACT

Multiple roles of women entrepreneurs, lack of experience in planning, lack of training in enterprise, followed by inadequate working capital, lack of adequate infrastructure, either no and less access to skilled laborers, lack of advertising and branding of the products, competition from branded products and lack of skills in sales promotion are the major planning, production and marketing problems faced by women entrepreneurs. The gap in women's participation to world's income is due to various social and personal constraints. Hence, an attempt was made to analyze the extent of involvement of farm women's, their dietary pattern in Hassan district. With this background, the present study on "Dietary Pattern of Farm Women Enterpruner: A Study in Hassan District of Karnataka". The present study was carried out to understand and analyze the dietary pattern of farm women Enterpruner involved in farm activities. The population was from lower middle class with agriculture being the major occupation. The study was conducted in Hassan district of Karnataka during the year 2014-15. Hassan district was purposively selected for the study. Farm women Enterpruner aged between 20-40 years, engaged in household chores from agricultural families were selected by purposive random sampling (N=300). Respondents were consuming more cereals (107%) when compared to other food groups and it is more than RDA. The probable reason may be their cropping pattern and food habit of the respondents in the study area. The consumption of pulses (76.13%), Sugar and Jaggary (87.10%), fish and flesh foods (42.36%), fats and oils (76.40%) were fairly good. The mean intake of protein (41.18 g), fat (18.56g), fibre (23.08g), calcium (730.50 mg), iron (12.24mg), β carotene (1821.61 µg) and vitamin C (26.15 mg).

Key words: *Sugar, Jaggary, Protein, Enterpruner, Women*

INTRODUCTION

A nation's development depends on the health and wellbeing of the people who live in the country. Good health of woman is very important as women are not only the carriers of coming generation, but builders of civilization and sustainable development[6]. They are the best upholders of environment, ecological and social balances, hence women should get adequate care and attention in the matter of health, nutrition, education or matters related to their social and economic development.

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Food is vital for the health and well being of an individual. Right to food is the fundamental right with equal footing to that of right to life. We find a whole hymn in praise of food in the Rig- Veda and food was regarded as the sources of all our nutritional status, health physical and mental well-being.

Good nutrition is the cornerstone for survival, health and development for current and succeeding generation[9]. Good nutrition or nutritional status is the outcome of many complex and interrelated determinants such as access to adequate, safe, affordable and nutritious food, care and health services.

Nutritional status is categorized as under nutrition and over nutrition which together is known as malnutrition. World Health Organization defines malnutrition as a term used to refer to a number of diseases, each with a specific cause related to one or more nutrients (for example, protein, iodine or iron) and each characterized by cellular imbalance between the supply of nutrients and energy on the one hand, and the body's demand for them to ensure growth, maintenance and specific functions on the other. Under nutrition in women of reproductive age may hamper the generations to come as because in an undernourished mother the supply of essential nutrients is insufficient. Under nutrition during adolescence and during pregnancy may lead to maternal mortality, low birth weight infants and infant mortality The latest statistical report (RGI, 2013) states that MMR of Assam is 257 against national average of 178. The reduction of mortality of women is an area of concern for the governments across the globe.

In the process of entrepreneurship women face various problems associated with entrepreneurship and these problems get doubled because of her dual role as a wage earner and a home maker. Multiple roles of women entrepreneurs, lack of experience in planning, lack of training in enterprise, followed by inadequate working capital, lack of adequate infrastructure, either no and less access to skilled laborers, lack of advertising and branding of the products, competition from branded products and lack of skills in sales promotion are the major planning, production and marketing problems faced by women entrepreneurs[3]. Women entrepreneurs are no different from men in terms of their personality, cognition, achievement, motivation, dependency and other related attitudes. The gap in women's participation to world's income is due to various social and personal constraints.

Hence, an attempt was made to analyze the extent of involvement of farm women's, their dietary pattern in Hassan district. With this background, the present study on "Dietary Pattern of Farm Women Enterpruner: A Study in Hassan District of Karnataka".

MATERIAL AND METHODS

The present study was carried out to understand and analyze the dietary pattern of farm women Enterpruner involved in farm activities. The population was from lower middle class with agriculture being the major occupation. The study was conducted in Hassan district of Karnataka during the year 2014-15. Hassan district was purposively selected for the study. Farm women Enterpruner aged between 20-40 years, engaged in household chores from agricultural families were selected by purposive random sampling (N=300).

Diet Survey

Baseline diet survey of the selected farm women was conducted by using 24 hour recall method for one day the sample size was 300. Standardized cups, vessels, paper discs and rubber balls were used to measure the food intake. Subjects were asked to recall the type of preparation made for breakfast, lunch, evening tea and dinner etc. for the previous day (other than feasting and fasting day). Information on amount of raw ingredients used for each preparation and also on the total cooked amount of each preparation was recorded in terms of standardized tools (standardization as per the procedure indicated by *Bamji et al 2009* The average raw ingredients in all the meals consumed by each subject per day were calculated.

The schedules were properly sorted out after verification and serially numbered. Data on intake of foods- cereals, pulses, vegetables etc. evaluated. Using the quantity of foods consumed per day nutrient intake for calories, protein, fat, fibre, calcium, iron, carotene and vitamin C per day was calculated4. These figures were compared against the (RDA, 2010) to provide a measure of adequacy or inadequacy of food and nutrient consumption.

$$\% \text{ adequacy} = \frac{\text{Intake of each nutrient}}{\text{Recommended allowances}} \times 100$$

RESULTS AND DISCUSSION

The dietary pattern of women is presented in Table 1which shows that majority of the respondents were non-vegetarian (59.33%) by habit. Among the non-vegetarian respondents, majority of them (37.33%) were consuming non-vegetarian food once in a week followed by twice (16.67%) and thrice (5.33%) in a fortnight. It was observed that 77.67 per cent of the respondents were following the habit of consuming three meals in a day followed by two meals (22.33%) a day. Even though the frequency of consumption of non-vegetarian food item was comparatively high, the overall quantity of consumption was lower than RDA. Majority of the respondents were consuming both vegetarian and non-vegetarian food items was also found by the study conducted by Maruthesh[7] and Chandrakala[2]. Even though results clearly shows that majority of the respondents were consuming three meals a day and non-vegetarian by habit, they are consuming much less than the recommended dietary allowances (RDA). More than one third of the respondents were used to have three meals (77.67 %) breakfast, lunch and dinner, whereas 22.33 per cent of the respondents used to have two meals lunch and dinner or breakfast and dinner. They used to skip their breakfast because of heavy entrepreneurial and household activities. The results were in line with the findings of Chandrakala[2]. About 71.33 per cent of the farm women planned their meal preparation in advance and 63 per cent of the farm women were kept regular time schedule for taking meal. It is mainly because of their awareness about the health.

Table 1: Dietary pattern of the farm women Entrepreneur

Food pattern	Category	Number	Per cent
Food habits	Vegetarian	122	40.67
	Non- Vegetarian	178	59.33
Frequency of non-veg consumption	Weekly once	112	37.33
	Weekly twice	50	16.67
	Weekly thrice	16	5.33
Meals consumed per day	Twice	67	22.33
	Thrice	233	77.67
Planning meal in advance	Planned meal in advance	214	71.33
	No meal planning	86	28.66
Time schedule for taking meal	Kept regular time schedule	189	63.00
	No regular time schedule	111	37.00

Table 2: Mean food intake (g/day) of the selected farm women Entrepreneur (n=300)

Food groups (g)	RDA	Mean	Std. Deviation	% adequacy	' Z' value
Cereals	330	355.2	42.17	107	67.15**
Pulses	75	57.10	6.84	76.13	54.90**
Milk and Milk products	300	85.07	28.61	28.35	16.29**
Roots and Tubers	200	48.87	11.62	24.43	23.05**
Green Leafy Vegetables	100	19.8	5.46	19.80	19.87**
Other vegetables	200	53.13	20.06	26.56	14.51**
Fish and flesh foods	100	42.36	13.52	42.36	17.19**
Fruits	100	16.66	3.40	16.66	26.85**
Sugar& Jaggary	30	26.13	7.81	87.10	27.50**
Fat	25	19.2	7.06	76.40	17.88**

**Significant at 1 per cent level

Mean food intake (g/day) of farm women is depicted in Table 2. Respondents were consuming more cereals (107%) when compared to other food groups and it is more than RDA. The probable reason may be their cropping pattern and food habit of the respondents in the study area. The consumption of pulses (76.13%), Sugar and Jaggary (87.10%), fish and flesh foods (42.36%), fats and oils (76.40%) were fairly good. This trend may be due to the socio-economic condition and cultural pattern of the respondents. Milk consumption was very less compared to RDA and this might be due to their savings done through milk producers' cooperative societies (milk dairies). It is one of the important stable and consistent incomes for the farm women to look after their financial requirement of the family. With respect to other food groups like green leafy vegetables, roots and tubers, other vegetables, and fruits the consumption was very less compared to RDA. Lack of awareness on nutritional value of these food groups and their socio-economic condition are the twin reasons for the above findings. The lower consumption of green leafy vegetables was the main reason for lower hemoglobin or iron deficiency among rural women. Chandrakala[2] conducted a study on food intake of women entrepreneurs and found that the intake of cereals and milk was 410.5 gram and 105.5 g respectively. Except for green leafy vegetables, other food groups' intake was lower than the suggested level. The intake of foods such as milk, oils and fats was higher when compared to other groups but lower than RDA. Jain and Singh[5] in their study on rural women stated that cereals form the bulk of the daily diet (328-397 grams). Consumption of other food items was low in case of pulses (20.8 g) and green leafy vegetables (6-8g). Hence it shows that cereals occupy the bulk of the daily diet of women respondents. The results were in line with the study done by Chandrakala[2] and Jain *et al.*[5] except for non-vegetarian food items.

Table 3: Mean nutrient intake of selected farm women in comparison with RDA(n=300)

Nutrients	RDA	Mean	SD	% adequacy	'Z' value
Energy (Kcal)	2230	1819	345	81.58	1.190**
Protein (g)	55	41.18	5.4	74.87	2.560**
Fat (g)	25	18.56	4.24	61.87	2.320**
Fibre (g)	30	23.08	3.21	76.93	2.156**
Calcium (mg)	600	730	278	121.66	0.469**
Iron (mg)	21	12.24	3.52	58.28	2.488**
β-Carotene (µg)	4800	1821	542	37.93	5.495**
Vitamin C (mg)	40	26.15	4.58	65.37	3.024**

**Significant at 1 per cent level

The mean nutrient intake of farm women in comparison with recommended dietary allowance is presented in Table 3. The mean intake of protein (41.18 g), fat (18.56g), fibre (23.08g), calcium (730.50 mg), iron (12.24mg), β carotene (1821.61 µg) and vitamin C (26.15 mg). The statistical analysis showed a significant difference in 'z' test at one per cent level of significance. The per cent adequacy of nutrients intake of women respondents was also depicted in the same table. The mean per cent adequacy of calcium (121.66%), energy (81.58%), vitamin C (65.38%) and β carotene (37.95%) of farm women found to be low. The adequacy of protein, fat, iron, fibre was 74.87, 61.87, 58.29 and 76.93 per cent respectively.

Nutritional status usually measured by anthropometry was found to be influenced by large number of factors. One of the important factors is food consumption. The meal pattern and the foods actually consumed by the farm women were recorded for three different alternate days during the entire period of study. The diet of the respondent families was found to be monotonous lacking variety and they care for more bulk food rather than nutritious and protective food. The common meal pattern of the rural families was cereals

for breakfast and rice with vegetables or Samber and finger millet dumpling for dinner. The mean intake of nutrients by women respondents namely protein, fat, energy, calcium, iron, β carotene, vitamin C and fibre were presented in Table 9. The adequacy of nutrients intake shown in table and found to be below RDA. The intake of energy 1819 kcal, protein 41.18 g, fat 18.56 g, iron 12.24 mg, β-carotene 1821.61 µg were found to be low compared to RDA. But calcium 730.50 mg intake was higher than RDA due to the daily consumption of Ragi ball (finger millet) which is the main staple food crop in Hassan district. Maruthesh[7] reported that majority of the rural women were deficit in all the nutrients except calcium. An increment in food intake is always associated with an increment in energy intake. It was observed that the mean intake of energy by women in the study were not up to the recommended level. These findings were in line with Dobhal and Raghuvanshi[4]. However, the diet of farm women was both deficient in calories and protein. These results were in conformity to the observations made by Pushpa *et al.*[8] who reported that the diet of south farm women was both deficient in calories and protein.

Iron intake was deficient in rural women 12.24 mg (58.29 %). This may be due to less consumption of green leafy vegetables. This observation is in line with the findings of Maruthesh[7] who reported that the intake of iron by farm women was inadequate to meet the daily requirements.

A deficit in the intake of vitamin C and β-carotene was found to be less among the respondents compared to RDA. Majority of the farm women in the study area had inadequate consumption of citrus and other vegetables. The low intake of β-carotene among farm women might be due to less consumption of yellow and orange fruits and vegetables and milk and milk products.

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