Assessment of Food Habits and Dietary Intake of Rural Women

Shikha Bathla, Manoj Sharma and Renu Bala

Krishi Vigyan Kendra, Langroya-144516 (SBS Nagar), Punjab

ABSTRACT

A survey was carried out to assess the health and dietary status of rural women of Shaheed Bhagat Singh District. The data pertaining to background information, food habits and morbidity status were collected through an interview schedule. The results revealed that there was quite lower intake of green leafy vegetables (3.9%), fruits (14.8%), roots, tubers and other vegetables (31.9%), pulses (62.5%), cereals (71.9%) and milk products (72.3%) as compared to Suggested Dietary Guidelines (SDI) by the Indian Council of Medical Research. While the intake of fats and oils (112.9%) was found more than the SDI probably due to wrong feeding habits. The study also revealed that fever, cold, tiredness, headache and loss of appetite was frequently occurring health problems among the respondents, probably due to less intake of food items as suggested. Thus, it can be said that to improve the heath status of the respondents right feeding practices need to be taught through nutritional counseling, trainings, seminars and campaign etc.

Key Words: Dietary intake, Health status, Morbidity, Rural women.

INTRODUCTION

Dietary Intake and food habits play a key role in determining the nutritional status whereas inadequate nutrition is responsible for the health problems that may arise due to consumption of unbalanced diet. Several factors are responsible for inadequate consumption like, lack of nutritional knowledge, poor purchasing power, wrong feeding practices and food taboos etc. Rao *et al* (2006) reported that inadequate dietary intakes, especially hidden hunger is responsible for the nutritional borne diseases. Kaur and Sharma (2014) observed that 45.3 percent 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. There is a need to develop a database on the diet and nutritional status of the adults from different parts of the country to enable the governments and other nongovernmental agencies to formulate policies and initiate strategies for their well-being. Specific nutritional needs and considerations are required for productive life and to get rid from ailments. Early marriages, low level of education, low income and poor nutritional status are the main health problems among the population in India. So there is an urgent need to initiate nutrition supplementary intervention measures as well as nutrition education programmes to improve the health and nutritional status of women from deprived communities. The situation calls for nutritional intervention and educational programmes immediately to educate rural young women (Nagamani, 2014). Thus, the present study was conducted to assess the food habits and dietary intake of rural women of Shaheed Bhagat Singh nagar district.

MATERIALS AND METHODS

Background information

A statistically adequate sample of 60 women was randomly selected from rural areas of Shaheed Bhagat Singh District, Punjab (India). The data pertaining to general profile of the subjects, age, caste, religion, food habits and morbidity status

Corresponding Author's Email: shikha_bathla@yahoo.com

were collected in June, 2018. The dietary intakes were recorded by using 24 hr recall method. The average daily intakes of food were calculated and compared with the suggested dietary intake for balanced diet by the Indian Council of Medical Research (ICMR 2011).

Statistical Analysis

Computation of some descriptive statistical measures such as percentage distribution, mean and standard deviation for variables was performed.

RESULTS AND DISCUSSION

The general information of selected respondents is presented in Table 1. The data revealed that all the subjects were in the age group of 18-54 yr from different villages of Shaheed Bhagat Singh Nagar. Maximum respondents were in two age-groups *i.e.* 18-25 yr (31.7%) and 25-33 yr (25%). The distribution of subjects on the basis of caste revealed that majority of the subjects, belonged to SC (63.3%) followed by general category (33.3%) and others (3.4%). Religion wise distribution of subjects showed that majority of the selected subjects belonged to Hinduism (66.7%) followed by Sikhism (33.3%)

Majority of the subjects were having nuclear family (61.7%) and rest were having joint family system (38.3%). The data regarding the educational profile of the respondents revealed that 21.7% of the participants were illiterate and 18.3% were matric pass and 11.7% were graduated. It was observed that mostly people from labour class were illiterate.

Table 1. Demographic profile of selected Trainees (n=60)

Sr.No.	Characteristic	Percentage
A	Age (years)	
	18-25	31.7
	25-33	25.0
	33-40	6.7
	40-47	16.7
	47-54	20.0
B	**Caste**	
	General	33.3
	SC/ST	63.3
	Others	3.4
C	**Religion**	
	Sikhism	33.3
	Hinduism	66.7
D	**Family Type**	
	Nuclear	61.7
	Joint	38.3
E	**Education**	
	Illiterate	21.7
	Primary	20.0
	Middle	8.3
	Matric	18.3
	Senior secondary	20.0
	Graduate	11.7
	Post Graduate	0.0
F	**Total monthly income(Rs.)**	
	Less than 10,000	0.0
	10,000-20,000	38.3
	20,000-30,000	50.0
	30,000-40,000	11.7
G	**Source of Income**	
	Farming	20.0
	Business	3.3
	Labour	61.7
	Service	10.0
	Any Other	5.0
H	**Food Habits**	
	Vegetarian	63.3
	Non-Vegetarian	33.4
	Ovatarian	3.3

Majority of the selected families were having average family monthly income ranged from Rs.20, 000-30,000 (50%). Only 11.7 per cent of the families were having average monthly income >Rs.30, 000. The main source of income among the families of selected subjects was labour (61.7%) followed by farming (20%) and service (10%) and

majority of the selected subjects were vegetarian (63.3%) followed by non-vegetarian (33.4%) and ovatraian (3.33%).

Morbidity status of selected respondents

The morbidity status of the selected adolescent girls is presented in Table 2. The data showed that headache (71.6%), tiredness (75%), loss of appetite (15%) cold or cough (46%) and fever (10%) was frequently occurring health problems among the respondents.

Table 2. Morbidity profile of selected respondents (n=60).

Sr. No.	Characteristic		
I	**Health problem**	**Frequently**	**From last six month**
	Fever	10.0	26.6
	Typhoid	3.3	6.6
	Diarrhea	-	1.6
	Jaundice	-	3.3
	Cold or cough	46.6	11.6
	Tiredness	75.0	1.6
	Headache	71.6	3.3
	Loss of Appetite	15.0	3.3
II	**Health check-up**		
	Yes	13.3	
	No	3.3	
III	**Health care facility availed**		
	Govt. Hospital	1.7	
	Private hospital	11.7	
	Primary health centre	-	
	Chemist Shop	86.6	

The data further revealed that majority of the subjects during illness availed health care facilities in chemist shop (86.6%) followed by private (11.7%), and government hospitals (1.7%).

Dietary Intake

Cereals

The mean daily food intake and per cent adequacy of food intake among the selected subjects is presented in Table 3. Wheat and rice are stable cereal for their food pattern to meet their nutritional requirements. There was negligible consumption of maize, barley, oats and sorghum. On perusal of the results, it was observed that the average daily intake of cereals among selected respondents was 194.16±5.25g. However, the per cent adequacy of cereals intake by subjects (71.9%) was found to be less than the suggested dietary intake value of 270g by ICMR (2011). This was either due to lack of nutritional knowledge or availability and purchasing power etc.

Pulses

Consumption of pulses was in the form of staple and whole pulses like Bengal gram, rajmash, chickpea, green gram and lentil etc. The mean pulse consumption was 37.5±3.34g/day by the selected subjects as compared to suggested dietary intake (60g) and was found to be inadequate (62.5%).

Fruits

The initial average daily intake of fruits (14.8±4.9g) by the respondents was quite low as compared to suggested dietary intake (100g). This was probably due to very high cost of seasonal fruits and the majority of population was not in position to buy these fruits from the market. Hence, efforts have been started to create a nutrition garden at each household in the area by the Krishi Viyan Kendras and other development departments like horticulture, agriculture, animal husbandry, fisheries, NGOs and banks etc.

Vegetable (Roots, Tubers and Others)

The most commonly consumed roots and tubers by the selected respondents were potatoes, onion, garlic and ginger etc. while the most commonly consumed other vegetables by all the selected subjects were capsicum, cauliflower, lady finger and cucurbits. The daily intake of vegetables was found to be inadequate (31.9%) as compared with the recommended intake of 400g (ICMR 2011) that compromises of roots and tubers (200g) and

other vegetables (200g). The main reason of lower intake of vegetables was lack of purchasing power, poor nutritional knowledge and lower per capita availability of vegetables/day (286g).

Green Leafy Vegetables

The mean daily intake of green leafy vegetables (GLV's) by the selected subjects was 3.8±2.3g/day which was even less than half in comparison to SDI. Inadequate consumption of green leafy vegetables was also reported by Rao *et al* (2010). The low intake of GLV's was due to less production and per capita availability of vegetables as revealed from Horticulture Statistics (2017).

Milk and Milk Products

It was recorded in the dietary survey that that consumption of milk was in the form of buttermilk, tea, curd, paneer and as sweet dish like kheer and vermicelli. The initial mean daily intake of milk and milk products among the selected subjects was 217±15.1g/day. However, the mean intake of milk and milk products was found less as compared to suggested dietary intake value of 300g/day by ICMR (2011). However, the intake of milk products was better than the pulses, fruits and vegetables consumption probably due to the reason that almost every family was keeping one or two milch animals for home consumption purpose in Punjab.

Fats and Oils

The daily intake of fats and oils among the selected respondents was observed to be as 22.5±0.9g/day. However, the intake of fats and oils was more than 20g/day as recommended by ICMR (2011). It was due to consumption of butter and desi ghee in the diet that are home produced.

Sugar and Jaggery

The mean daily intake of sugar and jaggery among the subjects was 16.7±0.9g/day and was little less than of recommended by ICMR (2011). However, the percent adequacy of sugar and jaggery was observed to be 83.7 per cent that was much more as compared to rest of the food groups except fats and oils. The sugar intake was due to consumption of tea at least two times per day among the respondents.

CONCLUSION

The study concluded that there was quite lower intake of green leafy vegetables (3.9%), fruits (14.8%), roots, tubers and other vegetables (31.9%), pulses (62.5%), cereals (71.9%) and milk products (72.3%) as compared to Suggested Dietary Guidelines (SDI) by ICMR whereas the intake of fats and oils (112.9%) was found more than the SDI due to wrong feeding practices. The study also

Table 3. Daily food intake by the selected respondents (n=60)

Sr. No.	Food Group	Suggested Dietary Intake (g)	Mean Dietary Intake (g)	Percentage consumption of required
1	Cereals	270	194.1±5.2	71.9
2	Pulses	60	37.5±3.3	62.5
3	Green leafy vegetables	100	3.8±2.3	3.8
4	Vegetables-Roots, Tubers and others	400	127.6±6.08	31.9
5	Fruits	100	14.8±4.9	14.8
6	Milk and milk products	300	217±15.1	72.3
7	Sugar and jaggery	20	16.7±0.9	83.7
8	Fats/Oils	20	22.5±0.9	112.9

#Suggested Dietary Intake (SDI) by ICMR, 2011

revealed that fever, cold, tiredness, headache and loss of appetite was frequently occurring illness among the respondents due to less intake of food groups as suggested. Therefore, in order to improve the health status of the respondents right feeding practices should be taught through nutritional counseling, trainings camps, seminars, awareness campaigns, use of mass media etc. in this regard.

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