

# Assessment of knowledge levels of women farmers in the areas of nutrition and health care

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■ **ABSTRACT** : The study aimed at determining the existing knowledge levels of thirty women farmers in the areas of nutrition and health care of infants and pre school children. A semi structured questionnaire was used to collect the socio demographic data, knowledge, attitude and practices about nutrition and health care during pregnancy. Pre-Post knowledge assessment was done to study the impact of intervention programme. The results revealed that women farmers had poor knowledge of nutritional aspects like balanced diet, protein rich foods, low cost iron foods etc during pre test. After implementing intervention programme to the rural mothers for a period of six months a significant improvement in the knowledge was observed during post-test. Rural mothers had good knowledge on health aspects like immunization, health check-ups during prenatal and post natal periods. The above findings can be used to plan a customized nutritional intervention programme aiming to improve the maternal nutritional knowledge and practices and eventually improve the health status of the pregnant mothers especially in rural areas.

■ **KEY WORDS**: Nutrition, Rural mothers, Intervention

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India has more hungry people than any country in the world. The IFPRI 2010 Global Hunger Index designates national levels of hunger as -alarming, and India scores lower than many sub Saharan African countries despite having a higher GDP (Victora *et al.*, 2008). Millennium Development Goal- 1 aims to halve the proportion of people suffering from hunger, and indicators include: percentage of children under 5 who are underweight, and proportion of the population below minimum level of dietary energy consumption. India is widely expected to miss the MDG hunger target by a

significant margin (Svedberg, 2009 and Chhabra and Rokx, 2004).

Nutrition and health interventions are spread among several government programmes and social safety nets, including the Integrated Child Development Services (ICDS) programme, the Public Distribution System (PDS), the Midday Meal Scheme (MMS), the Total Sanitation Campaign (TSC) and some activities within National Rural Health Mission (NRHM). However, India lacks a comprehensive, national health and nutrition strategy—and linkages

between planning, managing, and implementing these interventions are often weak or ineffective. Major programmes are plagued with severe operational problems, particularly in governance.

To date, nutrition has not been effectively integrated into a larger health strategy, which is reflected in all levels of planning, management, and implementation. Despite some efforts to integrate nutrition into NRHM and converge efforts with ICDS, nutrition components have largely taken a backseat to other interventions geared towards infant and maternal mortality (Gupta and Khaira, 2008 and Srinivasan and Shekhar, 2007).

Improving the health and nutrition status of farm families is the need of the day. This project aims at providing the health and nutrition interventions situations in agriculture as well as in life. Farmer can focus on agriculture and put his heart and soul in agriculture only when his family is healthy and happy. For this the family need to be equipped with sufficient knowledge about nutrition and health aspects which would enable them to access various resources eventually.

Focusing on these lines an integrated strategic intervention model would be evolved in this project wherein the knowledge and skill interventions would be taken up to bring the desirable change in the lives of farm families. This project would be a pilot study to establish the evidence on an integrated approach and strategic interventions which improve the nutritional and health status thereby improving the quality of life of farming community.

### Objectives:

- To assess the knowledge of rural mothers in the areas of nutrition and health care
- To plan and implement intervention programme
- To study the impact of intervention programme in improving the knowledge levels of rural mothers in the areas of nutrition and health.

## ■ RESEARCH METHODS

### Research design :

Pre-Post Experimental design

### Sample size :

30 Rural mothers – mothers of infant children and pre school children were selected.

### Location of the study :

Ananthavarapadu (V) Guntur (dist)

### Sampling technique :

Purposive random sampling

### Tools used for the study:

Sr. No.	Schedules used	
1	General information	Schedule developed for the purpose of study
2	Knowledge assessment schedule (Uma Devi, Bilquis and Sudharani)	To assess the health and nutritional knowledge of rural mothers.

### General information schedule:

General information schedule includes personal and demographic information about children, and their parents. The schedule consists of information about details of name of the mothers of infants, gender, age, family income, type of family, educational status etc.

### Interview schedules for assessing the health and nutrition knowledge of rural mothers :

The Nutritional and health care knowledge assessment schedule consists of information related to health and nutrition aspects of mothers of infants.

### Methods of data collection :

Individual home visits, focused group discussions, personal interviews.

### Intervention programme:

Intervention packages on health and nutrition, Intervention is given to the individual mothers, infants, adolescents using the standardized intervention packages.

### Nutrition intervention:

- Through Nutrition education
- Nutritional garden
- Enriching the diets with low cost nutritious foods.

### Implementation of intervention programme :

Based on the knowledge of the mothers of infants and preschoolers in the areas of health, nutrition components during pre –test, intervention programmes was planned to increase their knowledge levels and

improve the nutrition and health status of rural mothers. The intervention programme was implemented for period of 6 months.

#### Post – test:

After implementation of intervention programme for period of 6 months using the standardized intervention packages and structured infant stimulation programme, post-test was done to study the impact of the intervention programmes in improving the knowledge levels of rural mothers and adolescents and developmental status of infants. To measure the quality of life of rural women, life satisfaction scale was used after the intervention programme. The pre and post test scores were analyzed using appropriate statistical methods.

#### Analysis of data:

The data collected from 30 mothers of infants was pooled and codes were given appropriately. The coded data was entered into data excel sheets for calculating distributive and inferential statistics.

### ■ RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

#### Socio- demographic profile of the sample:

As a first step the socio-demographic profile of sample is presented. The distribution of sample according to age, family income, and educational status.

Table 1 indicates that 67 per cent of sample fall in the age group of 20-25 years and 33 per cent are from 26-30 years. When the family income considered 63 per cent families have middle income next to 30 per cent had low income families and 7 per cent families were from high income level.

Nearly half of the sample 53 per cent had education up to 10<sup>th</sup> class and 30 per cent sample were completed their college education few sample 17 per cent were completed primary education.

Table 2 shows the distribution of farm women on nutritional knowledge pre and post-test. At pre-test, majority of farm women (57%) had low level of knowledge related to nutrition aspects and 43 per cent of farm women had medium level of nutritional knowledge. After the nutrition education intervention

**Table 1 : Distribution of sample according to age, family income, educational status (n=30)**

Sr. No.	Mother variables		Number	Per cent (%)
1.	Age in years	20-25	20	67
		26-30	10	33
		Total	30	100
2.	Income level	High	7	7
		Middle	19	63
		Low	9	30
		Total	30	100
3.	Educational status	Below 5 <sup>th</sup> class	5	17
		5-10 <sup>th</sup> n class	16	53
		Higher degrees	9	30
		Total	30	100

given for farm women, post test results revealed that majority of mothers of infants (83%) had good knowledge of nutrition and 10 per cent had medium level of nutritional level. The strategies used for giving intervention were nutrition education, promoting nutritional garden and enriching the diets with low cost nutritious foods. Thus, intervention was found to be effective for mothers of infant babies in improving the knowledge levels of rural mothers.

**Table 2 : Knowledge levels of farm women on nutrition component (pre and post test)**

Sr. No.	Nutritional knowledge level	Pre test	Post test
1.	High level	0 (0)	27(90%)
2.	Medium level	13(43%)	3(10%)
3.	Low level	17(57%)	0(0)

Table 3 indicates that during the pre test sixty per cent of farm women were not aware of the importance of balanced diet during pregnancy whereas thirty per cent were aware of balanced diet. After conducting intervention programme for 6 months awareness about the low cost foods and balanced diet was improved. During the post-test it was observed that 86 per cent of farm women were aware of importance of balanced diet during pregnancy whereas 14 per cent were not aware.

**Table 3 : Awareness levels of farm women on importance of balanced diet**

Sr. No.	Variable	Pre test		Post test	
		Aware	Not aware	Aware	Not aware
1.	Balanced diet	40%	60%	86%	14%

**Table 4 : Awareness levels of farm women on importance of nutrients**

Sr. No.	Variable	Pre-test (n=30)		Post-test (n=30)	
		Aware	Not aware	Aware	Not aware
1.	Protein	23%	77%	86%	14%
2.	Carbohydrates	30%	70%	100%	0%
3.	Iron	33%	67%	100%	0%
4.	Vitamins	36%	64%	100%	0%

Table 4 indicates during the pre-test Majority of the farm women were not aware of protein, carbohydrates, iron, vitamins in daily diet after conducting six months intervention programme most of the farm women followed their diet intake and were aware of all nutrients.

There was a significant difference found in the pre and post intervention scores in the area of nutrition. Mothers of infants could comprehend well about the feeding practices and low cost weaning foods for the children. Their knowledge about the balanced diet and nutrients was also increased during post test.

**Table 5 : Comparison of nutritional scores pre and post intervention**

Variables	Mean and S.D. Nutrition scores	t-value
Pre-intervention	15.03(0.26)	6.15*
Post-intervention	20.5(0.14)	

\* indicates significance of value at P=0.01

Table 6 shows the distribution of farm women on health knowledge pre and post-test. At pre-test, majority of farm women (80) had high level of knowledge related to health aspects and 20- per cent of farm women had medium level of health knowledge. After the health education intervention given for farm women, post test results revealed that majority of mothers of infants (90%) had high of knowledge of nutrition and 10 per cent had medium level of nutritional level. The strategies used for giving intervention were through reproductive and child health education, Demonstrations and group discussions on scientific child rearing practices, Infant stimulation , Immunization. Thus, intervention was found to be effective for mothers of infant babies in improving the

**Table 6 : Knowledge levels of farm women on health component pre and post test**

Sr. No.	Health level	Pre test	Post test
1.	High level	24(80%)	27(90%)
2.	Medium level	6(20%)	3(10%)
3.	Low level	-	-

knowledge level of mothers of infant babies similar studies supported. Shamila Hamid in North Kashmir (2011), found that more than half of the of the mothers 184 (61.3%) had good knowledge regarding vaccines. Similar work related to the present investigation was also carried out by Pandey *et al.* (2014); Samuels and Anderson (2014); and White (2005).

### Conclusion:

#### Major findings of the study:

#### Out comes:

- Nutritional knowledge levels of farm mothers indicate that before post-test they had poor knowledge of nutritional aspects like balanced diet, protein rich foods, low cost iron foods etc. After implementing six months of intervention programme the mothers improved their knowledge during post-test.

- A significant difference found in the pre and post intervention scores in the area of nutrition

- Farm mothers had good knowledge on health aspects like immunization, health check-ups during prenatal and post natal periods.

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