

IMPACT ASSESSMENT OF NUTRITION EDUCATION PROGRAMME ON NUTRITIONAL KNOWLEDGE OF ADOLESCENT GIRLS

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ABSTRACT

The present study was conducted with the objective to assess impact of nutrition education on nutritional knowledge of adolescent girls. Pre and post-test experimental research design was used for carrying out the research. The study was conducted in randomly selected village Mangrop of Suwana panchayat samiti of Bhilwara district, Rajasthan. One Kasturba Gandhi Balika Vidhayalaya was selected from Mangrop village purposively because these schools are residential and thus are easily approachable. Total sample consisted of 50 adolescent girls in the age range of 13-18 years. The education programme was organized for two days in a week continuously for six weeks and pre-test was done before giving the educational package and post-test was done after 15 days of the programme. The data was collected by using questionnaire technique and analyzed using frequency, per cent, mean per cent score and paired t-test. Major findings of the study revealed that a significant difference was found in overall and aspect wise pre and post knowledge of respondents prior to nutrition education programme. In the aspect 'food', before imparting education 56 per cent respondents had medium knowledge followed by low knowledge (24%). Only 40 per cent of respondents fell into high knowledge category. Regarding 'food groups', 44 per cent respondents already had medium knowledge, while 30 percent had low knowledge and only 26 per cent had high knowledge. But after imparting nutrition education the knowledge of the adolescent girls was increased and the initial and final values of knowledge test were statistically significant.

KEY WORDS: Nutrition, Nutrition Knowledge, Food, Food Groups, Adolescent

INTRODUCTION

Adolescence is the period of rapid physical growth, sexual and psychological changes. Habits and behaviour picked up during adolescence have lifelong impact. It is the last chance to correct the growth lag and malnutrition. Seventy per cent of the deaths in adulthood are linked to habits picked up during adolescence. Therefore, it is essential to train this vulnerable group regarding health and nutritional awareness because, today's girls are future mothers and their health and well-being are crucial. With the Right To Education Act, 2009 coming into force with effect from 1st April 2010, and the SSA Framework of Implementation being revised to correspond to the Right to Education (RTE Act), the KGBV component of SSA would also be implemented in the overall context of child rights and child entitlements and in harmony with the spirit and stipulations of the Act. The objective of KGBV is to ensure access and quality education to the girls of disadvantaged groups of society by setting up residential schools with boarding facilities at elementary level.

The Kasturba Gandhi Balika Vidyalaya (KGBV) scheme was launched by the Government of India in August 2004 for setting up residential schools at upper primary level for girls belonging predominantly to the SC, ST, OBC and minorities in difficult areas (SSA components KGBV 2007).

Awareness of rural adolescent girls is a complicated and uphill task. India has one of the fastest growing youth populations in world and adolescent girls of age 13 to 19 years constitute nearly 66 million. The lives of these girls are characterized by limited education, lack of knowledge pertaining to social as well as health aspects and also limited influence on decisions affecting their lives. During this period, attitudes, beliefs and values tend to settle into a pattern, out of which emerges the shape and directions of one's life style (Sharma *et al*, 2009). Information building is one of the best tools for improving awareness of rural adolescent girls regarding health, social, cultural, legal and political issues. It can enable these girls to gain more and more knowledge about the world outside home, improve their skills and can help them to achieve the status. Eating habits of adolescents are not the same as that of children because adolescents can eat whenever or whatever they want; therefore, it is important for adolescents to know the information regarding nutrition in the food they consume for their future (Aprilianti, 2011). So the present study conducted with an objective to assess impact of nutrition education programme on nutritional knowledge of adolescent girls of Mangrop, Bhilwara district.

METHODOLOGY

One group pre and post-test experimental research design was used for the present study. The study was conducted in Bhilwara district of Rajasthan. A total sample of 50 adolescent girls was selected in the age group of 13 to 18 years from one villages having KGBV i.e. Mangrop. Different aspects of nutrition were selected (food, food groups and functions of food) after an extensive review of literature relevant and available on nutrition like text books. Knowledge test tool was developed different selected aspects of nutrition. General information on type of family, family size, occupation, age, educational level and income of family was collected. Nutritional knowledge of adolescents was assessed by developed tool before and after imparting nutrition education. For each selected aspect flash cards, power point presentations (PPT's), posters, games were developed. Conversely, the impact of nutrition education was assessed by the change in nutrition knowledge of the selected adolescent girls.

RESULTS

General Background Information

All the respondents (100%) were belonging to Hindu family. Majority of respondents (64%) were from other backward caste (OBC) and 32 per cent were from schedule caste. Sixty four per cent adolescent girls had joint type of family structure. Majority (92%) of them were vegetarian. Only 4 per cent were from ovo vegetarian. Their main family occupation was business, farming and labourer work. Sixty per cent of respondents had 5000-10000 as their monthly family income.

Aspect Wise Overall Knowledge of Respondents

To know the overall knowledge of respondents, three knowledge categories were made i.e. low, medium and high on the basis of the score obtained by respondents in the knowledge test. Three aspects of nutrition were used to assess nutritional knowledge of adolescents girls i.e. food, food groups, functions of food and nutritional deficiency disorders. The aspects wise data has been given in Table 1. It is clearly revealed that in the aspect 'food', before imparting education

56 per cent respondents had medium knowledge followed by low knowledge (24%). Only 40 per cent of respondents fell into high knowledge category. Regarding 'food groups', 44 per cent respondents already had medium knowledge, while 30 percent had low knowledge and only 26 per cent had high knowledge.

Table 1: Aspect Wise Nutritional Knowledge (MPS) of the Respondents During Pre and Post-Test N=50

S. No	Aspects	Pre Test							Post Test							Gain (%)	t-values
		Low		Medium		High		MPS	Low		Medium		High		MPS		
		f	%	f	%	f	%		f	%	f	%	f	%			
1.	Food	12	24	28	56	20	40	63.33	1	2	14	28	35	70	90	26.67	6.5*
2.	Food groups	15	30	22	44	13	26	55	0	0	10	20	40	80	86.66	31.66	7.1*
3.	Functions of food	50	100	0	0	0	0	9.55	2	4	7	14	41	82	74.07	64.52	21.77*

* Significant at 0.5 per

Similarly in the aspect 'functions of food' all of the respondents (100%) possessed low knowledge. Further the t-values confirm the significant difference in the pre and post knowledge of respondents regarding all the aspects. These findings reflect that adolescent girls are potential learners and crucial asset for nation building.

In Depth Knowledge of Respondents on Different Aspects of Nutrition

Results regarding nutritional knowledge about food, shows that at base line survey majority of respondents (68%) had correct knowledge about the food needed to make body healthy and active. About the concept of food 46 percent respondents had correct knowledge. Majority of respondents (76%) had knowledge about consequences of skipping meal i.e. weakness, fatigue, low working capacity, etc. Table 2 clearly reveals that at baseline 40 per cent respondents had knowledge about functions of food i.e. food needed for mental and physical work, for protection from disease, for growth and development and for other body functions.

After the nutrition education programme retention of gained knowledge of the respondents about the functions of food and food were increased up to 84-94%. It may be due to simplicity and clarity of message and as most of the respondents might have been attentive and took interest in gaining knowledge about functions of food in our body.

Table 2: Distribution of Respondents by their Knowledge about Food N= 50

S. No.	Items	Pre Test		Post Test	
		f	(%)	f	(%)
1.	Knowledge about food				
	a. Make body healthy and active	34	68	47	94
	b. Concept of food	23	46	42	84
	c. Consequences of skipping meal	38	76	45	90
2.	Functions of food	20	40	43	86

It is evident from Table 3 that at baseline 8 per cent of respondents opted for option 'a' while 36 per cent opted for option 'e' as the correct answer regarding knowledge about food groups. But after imparting nutrition education 78 percent of respondents said that option 'e' was the correct answer. It can be concluded that NEP has helped the respondents in increasing knowledge.

Majority (56%) of the respondents already had knowledge about sprouting while only 46 percent respondents had knowledge about its health benefits. About 78 per cent of respondents had knowledge regarding seasonal fruits and vegetable. They already had the knowledge of seasonal fruits and vegetables as there were charts and posters related to it in their classroom.

Table 3: Distribution of Respondents by their Knowledge about Foods to Be Included in Diet N=50

S. No.	Items	Pre Test		Post Test	
		f	%	f	%
1.	Food groups				
a.	Cereals + pulses	4	8	0	0
b.	Cereals + pulses + milk products	8	16	0	0
c.	Cereals + pulses + milk products + fruits and vegetables	4	8	3	6
d.	Cereals + pulses + milk products + fruits and vegetables + fat and sugar	16	32	8	16
e.	Cereals + pulses + milk products + fruits and vegetables + fat and sugar + meat, fish and eggs	18	36	39	78
2.	Sprouts				
a.	Knowledge about sprouting	28	56	46	92
b.	Benefits of sprouting	23	46	46	92
3.	Knowledge about seasonal fruits and vegetables	39	78	46	92
4.	Amount of water to drink in a day	20	40	41	82

After 6 weeks of NEP, knowledge regarding sprouting, seasonal fruits and vegetable was increased (80-92%). This increase in knowledge was higher, may be because of use of mass media programme i.e. videos, poems and storytelling during NEP. According to Kanashiro *et al.* (2003), after imparting nutrition education through community kitchens, the knowledge of adolescent girls regarding health, relationship between health and food and food groups increased.

CONCLUSIONS

From the findings of the present study it can be concluded that, even after the efforts of the government the knowledge about nutrition has not reached to rural adolescents up to desired level. The poor knowledge of respondents may be due to low education level of the family especially mothers so no one is there to give information about the health and nutrition as mothers themselves are not aware about the importance of nutrition. The overall knowledge of girls in general, about nutrition was marginally on an average side. But after imparting nutrition education tremendous improvement was observed in the knowledge of respondents as they gained knowledge in all the aspects of nutrition. This indicates that the nutrition education programme was effective in creating awareness in rural adolescent girls; hence retention in gained knowledge was desirable.

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