HEALTH AWARENESS OF RURAL ADOLESCENT GIRLS: AN INTERVENTION STUDY

G.R.Jadeja*

B.R.Panchasara*

K.N.Rana*

ABSTRACT:

A study was planned to fulfill the objectives of awareness in adolescent girls regarding the health aspects and an intervention impact of health awareness of the adolescent girls. A total of 244 adolescent girls in the age of 14 to 19 years were selected randomly from government schools of two villages of *Bhal* region of Ahmedabad district of Gujarat. The tools for assessment consisted of socio-economic status scale and a general awareness scale. The sample group was pretested on their level of general awareness which focused specifically on health aspects. The intervention was given for six months to the girls through lectures, discussions and demonstrations. Post testing was done on the girls after the period of intervention. Results showed that the knowledge of girls regarding health aspects improved significantly after intervention. There was a considerable increase in the awareness levels of girls with regard to knowledge of health problems, environmental health, nutritional awareness and reproductive and child health. Thus informative and educable intervention seems to have a positive effect on awareness levels which would eventually encourage expansion of knowledge and positive health habits.

KEY WORDS : Intervention, Health, Nutrition, Awareness, Knowledge

* **Krishi Vigyan Kendra, Arnej (Anand Agricultural University) Gujarat**

INTRODUCTION

Women's reproductive health is largely influenced by their health status during infancy, childhood and adolescence. Compared to boys, the adolescent girls health, nutrition, education and development are more neglected which has adverse effect on reproductive health. Adolescent girls face more problems than boys, largely due to socio-cultural factors. They are deprived of adequate health care, good nutrition and opportunity for schooling. Health is one of the major issues revolving the stage of adolescence. In spite of much effort from different governmental and non governmental agencies focusing on different health aspects, this young population, especially the girls, are deprived of the basic health care and awareness. The girls are often very ignorant of how their bodies function in terms of sex and reproduction and frequently express a strong desire for the opportunity to discuss such issues. These girls need special care in view of their role in shaping the health and well being of the present as well as future generations (Chaudhary PD, 1995). In his study analyzed the gender discrimination against the girl child in relation to health, nutrition, education, work participation and adolescence. Educational intervention programmes can help in creating and promoting awareness among the youth and women. Common belief is that acquiring nutritional knowledge will itself lead to improved dietary practices. Nutrition education can be defined as "the process of helping individuals to develop the knowledge, skills and motivation needed to make appropriate food choices throughout the life. A study by Dongre et al. (Dongre et al., 2006) showed significant improvement in personal hygiene of students and concluded that the school health education programmes with active involvement of school teacher lead to improvement in personal hygiene in school children and reduction in related morbidities. Through the diverse nutrition and health related roles, women can influence the nutritional status of individual household members and of the entire household as a unit. Hence, the type of care she provides depends to a large extent on her knowledge and understanding of aspects of basic nutrition and health care. Several nutritional studies in rural Indian communities have shown that regular and frequent nutrition and health education provided with health care, food producing and infants generating activities resulted in a striking improvement in nutritional status of infants and preschool children. With the above background, the present study was formulated in order to see the awareness of adolescent girls in relation to health and also to see the effect of educational intervention on their knowledge levels.

METHODOLOGY

A sample group of 244 adolescent girls of age 14 to 19 years were selected randomly from adapted villages of KVK, Arnej, of Ahmedabad district of Gujarat. The sample was selected from the villages nearer to the KVK. The tool consisted of Socio-Economic Status (SES) Scale and a General awareness schedule. The SES inventory comprised of general information on age, ordinal position, family type, educational status, etc. The general awareness schedule consisted of specific information on health aspects, hygiene, nutritional aspects and reproductive and child health. A pretest-posttest design was used for the study with intervention for a specific period. The secondary and higher secondary government schools located within villages were selected, out of which efforts were made to choose at least 20 girls between the age group of 14 to 19 years from each school. Each girl was contacted separately for the interview within the schools. A pretest was conducted on the girls for knowing their general awareness skills and based on their responses an intervention package was developed. This information, as a part of intervention was given for six months to the girls. Post testing was done after six months to see the effects of intervention. Intervention in the areas of general awareness was provided to the girls in the schools. Visit to each school were made once a month and the information were given through lectures, discussions and stories. The data was then statistically analyzed to see the effect of intervention on girls' awareness.

RESULTS AND DISCUSSION

The background of a person helps in revealing possession of certain knowledge and qualities. The background information of the adolescent girls is given in table 1, according to which majority of girls (36.48%) were in the age group of 18 to 19 years followed by 36.07%in the age group of 14 to 15 years. 47.54% of girls were the first bond and 24.59% were second born in their families. Majority of the girls came from nuclear families (65.57%) and had small family size (22.95%) of one to four members. The educational level of the parents reveal that majority of the parents of the respondents were educated at least up to middle and high school.

Table 1: Socio economic status of respondents

Sr. No.	SES Variables	Number	Percentage
1	Age of Respondents - 14 to 15 years	88	36.07

	- 16 to 17 years	67	27.46
	- 18 to 19 years	89	36.48
2	Ordinal Position		
	- First	116	47.54
	- Second	60	24.59
	- Third	36	14.75
	- Above third	32	13.11
3	Family type		
	- Nuclear	160	65.57
	- Joint	84	34.43
4	Family size		
	- Small	56	22.95
	- Medium	143	58.61
	- Large	45	18.44
5	Fathers education		
	- Illiterate	16	6.56
	- Up to primary	122	50.00
	- Up to secondary	55	22.54
	- Up to higher secondary	30	12.30
	- Diploma	3	1.23
	- Graduate	18	7.38
6	Mothers education		
	- Illiterate	65	26.64
	- Up to primary	122	50.00
	- Up to secondary	35	14.34
	-Up to higher secondary	12	4.92
	- Diploma	1	0.41
	- Graduate	9	3.69

Health awareness is one of the major indicators which reveal a person's knowledge about health problems. It was observed that awareness regarding general health problems increased to

certain extent after post testing. This was specifically seen in the problems of cold, backache and stomach related problems (Table 2). There was also increase in the responses of the causes for different problems in which it was seen that for major health problems the most common cause seen after post testing was that due to cold weather. A study by Nair and Nair (2002) revealed that a considerable percentage of women knew about problems like general weakness, pain in abdomen, pain in legs and back. During the pre-testing phase, very less percentage of girls had knowledge about water and food born diseases. But this knowledge increased considerably after intervention and majority of the girls related the stomach problems as water and food borne diseases.

Table 2: Awareness of adolescent girls regarding health

Sr. No.	Health Knowledge	Pre-test	Post-test
1	Knowledge of general health problems (Cold, cough, fever stomach related, headache, backache, others)	102 (41.80%)	238 (97.54%)
2	Causes (Eating in more quantity, due to cold weather, eating stale foods)	61 (25.0%)	234 (95.90%)
3	Knowledge about water born diseases (Diarrhea, fever, typhoid, stomach related problems)	72 (29.51%)	235 (96.31%)
4	Knowledge about food borne diseases (Diarrhea, stomach related problems)	46 (18.85%)	222 (90.98%)
	t - test value	24.913**	

**p<0.01 (Highly significant)

Women possess attributes and skills which are vital to ecological sustainability. They can make a major contribution to managing and conserving natural resources. A high increase was noted in the awareness of girls regarding knowledge about environmental pollution including air, water and soil pollution (Table 3). Although one- fourth of the sample at pretesting did not know anything about the effect of environmental pollution on health but after post testing, majority of

them thought that different diseases and especially breathing problems can be caused due to pollution. This shows that at least awareness was there in the girls. Different studies have also indicated that women express more concern for the environmental issues than do men. (Jaggi et al., 2005)

Table 3: Awareness about environmental pollution

Sr. No.	Knowledge	Pre-test	Post-test
1	Knowledge of environmental pollution (Air pollution, water pollution, soil pollution)	112 (44.90%)	233 (95.49%)
2	Effect o health (Get different diseases, breathing problems)	61 (25.0%)	199 (81.56%)
	t-test value	11.982**	

**p<0.01 (Highly significant)

The close association between women & natural resources is more visible in rural context. For young girls in India, poor nutrition, early childbearing and reproductive health complication compound the difficulties of adolescent physical development. Nutritional deprivation, increased iron demand for adolescent growth, excessive menstrual losses of iron and early and frequent pregnancies aggravate and exacerbate pre-existing anemia. Most girls are not adequately aware of their increased nutritional needs for growth, especially increasing their food intake to meet calorie demands of pubertal growth, resulting in girls that are undernourished and of short stature.

In the present study, it was seen that although knowledge of girls regarding nutrients increased during post testing, but less number of girls were aware about nutritional deficiency diseases, etc (Table 4). The results are in concurrence with the study by Saibaba et al. (2002) which revealed that use of educational aids through intervention have a positive effect on the nutritional knowledge of girls which may ultimately improve their nutritional status. The significant t-values at one percent levels of health and nutritional aspects reveal that the intervention had significant effect on the level of knowledge of girls in these areas. Adolescents are future parents. Particularly women play a significant role in the development of their offspring. (Gupta

et al., 1992) So if they have better nutritional knowledge and awareness on nutrition they improve the nutritional status of family members and good health can be maintained.

Table 4: Nutritional awareness of girls

Sr. No.	Knowledge	Pre-test	Post-test
1	Knowledge of nutrients (Proteins, vitamins, carbohydrates, fats, minerals)	23 (9.43%)	217 (88.93%)
2	Knowledge about nutrient deficiencies (Beriberi, night blindness, anemia, rickets, scurvy)	24 (9.84%)	202 (82.79%)
	t-test value	30.934**	

**p<0.01 (Highly significant)

Girls in the stage of adolescence need special care particularly in shaping their health and well being. They need to be well informed about each and every aspect of health and other related areas including reproductive health. It was observed that very less percentage of girls knew about reproductive organs and secondary sexual characteristics (26.23%) at the time of pretest. It was very interesting to note that in spite of the girls studying in 8th, 9th and 10th standards, they did not have knowledge about primary and secondary sexual characteristics. This may be due to that sex is considered to be very sensitive topic and matters related are generally not discussed openly with teachers and parents. But after six months of intensive intervention through discussions an increase was seen in their knowledge levels. Also majority of the girls did not know about the timing of appearance of secondary sexual characteristics (Table 5). Majority of the girls faced problems during menstrual periods and pain in lower abdomen or stomach ache (as perceived by them). 43.03% percentage of girls knowing about the ideal child bearing age was 26 to 30 years. A slight increase was seen in the perception of ideal family size which was 74.18% for a family of one to four members. Stunted anemic girls with inadequate knowledge of personal care, family planning or child rearing practices enter marriage and motherhood, thus perpetuating the problems of malnutrition and poverty to the coming generation. On an average most adolescent girls in India, have little knowledge of menstruation, sexuality and reproduction. Large number of rural and urban population believes that menstruation contaminates the body and makes it unholy. As a consequence the girls often see themselves as impure, unclean and dirty. According

to Nutrition Foundation of India, the average age at menarche is 13.4 years, yet 50% of girls aged 12 to 15 years do not know about menstruation. This lack of information can be attributed to a veil of secrecy that surrounds menarche.

Table 5: Awareness of girls regarding reproductive and child health

Sr. No.	Knowledge	Pre-test	Post-test
1	Knowledge of secondary sex characteristics (Timing of appearance)	64 (26.23%)	116 (47.54%)
2	Problem during menstrual periods (Stomachache/ pain in lower abdomen, backache, tiredness)	64 (26.23%)	170 (69.67%)
3.	Ideal child bearing age (26 to 30 years)	105 (43.03%)	181 (74.18%)
4.	Immunization to pregnant women (Tetanus, measles)	26 (10.66%)	157 (64.34%)
5.	Timing of vaccination (2 months, 6to 8 months)	7 (2.87%)	202 (82.79%)
6.	Ideal family size (1 to 4)	83 (34.03%)	181 (74.18%)
7.	Ideal birth spacing (3 to 5 years)	78 (31.97%)	206 (84.43%)
8.	Knowledge about family planning method (Sterilization, pills, condoms, etc.)	2 (0.82%)	79 (32.38%)
9.	Ideal place of birth (Hospital)	132 (54.09%)	225 (92.21%)
	t-test value	29.342**	

**p<0.01 (Highly significant)

In the present study, majority of the girls did not know about type and timings of immunization given to pregnant women, although the percentage increased during post testing. In a study by

Gupta et al.(2001), it was found that awareness of at least one method of immunization was present in majority of girls and most of them were aware of polio, BCG, TT, measles and DPT. There was also increase in percentage of girls telling about ideal birth spacing of 3 to 5 years during post testing (84.43%). Very few girls (0.82%) knew about family planning methods and after intervention the percentage were increased (32.8%) (Table 9). Awareness plays a pivotal role in motivating women to have a favorable attitude towards family planning and adopt family planning behavior. 52.09% girls knew about the ideal place of birth was hospital and it was increased after intervention up to in 92.21% girls. The intervention regarding reproductive and child health showed a significant effect in the knowledge levels of girls as seen by t-test value at 1 percent level of significance.

When the awareness aspects were compare with the SES aspects it was found that the awareness aspects are dependents on the education level of adolescent girls. The pollution awareness in adolescent girl is depends on the father's education level while the nutrition awareness and the reproductive and child health awareness is depends to the mother's education. (Table 6)

It is believed that intervention studies seem to bring a positive change in lives of people. Human being can alter their lives by changing their attitudes. Educational interventions can help change the attitudes of people for their betterment.

Table 10: Comparison of SES aspects with Awareness

Sr. No.	Awareness	Chi Square test		
		Education Level of Girls	Fathers Education	Mothers Education
1	Health Awareness	17.855**	9.852^{NS}	15.167^{NS}
2	Pollution Awareness	28.283**	21.491*	15.915^{NS}
3	Nutrition Awareness	25.553**	12.277^{NS}	36.434**
4	Reproductive and child health awareness	21.728*	16.271^{NS}	37.582**

$p<0.05$ = Significant, $p<0.01$ = Highly Significant, $p>0.05$ = Not Significant

Since adolescence is a period of rapid personal, physical and intellectual development and the effects of poverty, illiteracy as well as lack of nutritional and health care are further magnified by

gender discrimination, girls of this age group need to be addressed a special target category by development programmes. They need to be given an education that would give rise to their self confidence and decision making skills.

CONCLUSION

In this study, the selected adolescent girls were having basic ideas about health, pollution and nutrition but they were lacking in scientific concepts related to nutrition. It was also observed that provision of intervention had a significant impact on nutritional knowledge of adolescent girl. So it can be concluded from the above study that educational intervention, if given in right manner, can bring out positive changes in its true sense and can modify or change the lives of people. This holds more for the younger population as they are the future men and women who would promote growth and development of our nation. So it is important to conduct awareness programmes on food choices and nutritional requirements on a regular basis especially among low income groups.

REFERENCES

- Chaudhary, P. D., 1995. Girl child and gender bias. Social Change., 25 (2 & 3): 84-93
- Dongre, A.R., Deshmukh, P.R., Garg, B.S. 2006. The impact of school health education programme on personal hygiene and related morbidities in Tribal school children of Wardha district. Indian Journal of community medicine., 31(2): 81-82
- Gupta, K., Gupta, L.C. and Gupta, A., 1992. Food and Nutrition. 4th Edition, Jaypee Brothers Medical Publishers (P) Ltd., pp 35-43
- Gupta, N., Mathur, A.K., Singh, M.P. and Saxena, N.C., 2001. Reproductive health awareness of school going unmarried rural adolescents. Indian Journal of Pediatrics., 71: 797-801
- Jaggi, P., Chako, N., Grover, E., 2005. Mothers and Earth. Social Welfare., 53(3): 9-12
- Nair, S.N., Nair, P.S., 2002. Reproductive health among rural women in Kerala. Reproductive child health., New Delhi; APH. pp. 61-76