

## **Impact of family health exercise program on health knowledge and practice of a rural population of eastern Nepal**

**Jha N, Kumar S, Yadav BK, Singh GCP, Niraula SR**

Department of Community Medicine, B. P. Koirala Institute of Health, Sciences, Dharan, Nepal

---

### **Abstract**

**Background:** It is important to know the impact of health education on community. This may lead to improve the programs, commitment to students and staffs by taking feedback. These activities are aimed at producing changes in the community.

**Objective:** To assess the impact of health education as intervention program during Family Health Exercise (FHE) about the knowledge and practice of people related to health in a village of eastern Nepal.

**Methods:** During FHE, health education was given by the 3<sup>rd</sup> year medical students to the head of the 30 families. The neighbour 30 families were taken as control, where no health education was given. These two groups were compared after 6 months.

**Results:** Sanitary practice (Hand washing) before meal was known to both groups. But the material used for washing hand (soap and ash) was 53% in intervention as compared to 30% in control group. People were aware about the importance of care of the mother during pregnancy and lactation, but more in intervention group. The knowledge and practice for starting semisolid food other than breast milk for infants during weaning were higher in intervention (89%) than control (31%) group.

**Conclusion:** There was significant change in the knowledge and practice of woman (mainly host) who received health education. The community also benefited in terms of their health knowledge and practices. Such programs are useful for the community at large.

**Key words:** Family Health Exercise, Impact of Health Education, Health education, Nepal.

---

**B.** P. Koirala Institute of Health Sciences (BPKIHS) is an autonomous health science university situated in the eastern Nepal. In order to provide community orientated and to create socially accountable health force, BPKIHS has started an integrated, community oriented and partially problem based undergraduate medical education in 1994. Five and half year MBBS curriculum is divided into the first and second phases with one year internship program. About 20% undergraduate curriculum time is allocated to the Department of Community Medicine. Common health problems, epidemiological methods, health management information system, national health programmes with strategies and health care delivery system in Nepal are emphasized during classroom and field based teaching/ learning programme by the department.

FHE is a learning approach for the students during their 3<sup>rd</sup> year undergraduate training course. This exercise helps them to obtain practical experience in health promotion, specific protection, early diagnosis and treatment, disability limitation and rehabilitation. The aim of this exercise is to prepare the future family physician and primary health care provider.

The medical schools involved in FHE have more or less same objectives. This needs a strong collaboration with the community. Measuring the impact on community is important for many reasons, like feedback for program improvement and commitment of students and staffs. These activities are all aimed at producing changes in the community. However, the question, then of course is to what extent these changes contribute to the well being of these communities. Many community-based programs provide services through their staff and students.

---

### **Correspondence**

Dr. Nilambar Jha  
Department of Community Medicine,  
B. P. Koirala Institute of Health Sciences, Dharan, Nepal

These services may be health intervention e.g.; health education or full-fledged community development services. One must keep in mind though, that ensuring successful partnership with the community requires active community involvement in all aspect of the program. It gives an opportunity to understand the health needs in a holistic manner and the students-learn to treat the compartmentalized system. It transcends current disciplinary and conceptual borders.

The objective of this study was to assess the impact of health education intervention program (through FHE) on knowledge and practice of people in a village of eastern Nepal.

### **Materials and Methods**

During the V<sup>th</sup> semester of III<sup>rd</sup> Year (at the beginning of 2<sup>nd</sup> phase) a community based FHE was carried out in a near by village. Each student was allotted a family in a village about 14 Km away from the Institute after extensive home work by the department. These 30 students visited their allotted families once in a fortnight for six months. Each visit lasted for 3hours for interaction between the student and head of the family and other members. The visit was preceded by a briefing session by the faculty and staff of the department. In briefing session the students were told the exercise for that day. The students were accompanied by faculty members, nutritionist and a social scientist to the village. They collected information about family structure, socioeconomic condition, morbidity, mortality, nutritional status, environmental sanitation, family planning practices, social and cultural belief and taboos influencing health and health seeking behaviour with the help of a structured questionnaire at the beginning and end of this program to complete their log book.

During the each interaction, the student gave health education about the hygiene, sanitary practices, mother and child care including family planning etc. Thirty families adjacent to the allotted families were

taken as control, where no health education was given. Our student with the same questionnaire gathered all information like socio-demographic variables, knowledge about personnel hygiene and healthy practices etc. from the intervention and control families at the beginning of this program. All interviews were done from head of the families (usually Women). During this period they served as a family physician and health educator to their allotted families. At the end of their posting they again interviewed the head of the family to know the impact of health education. Interview schedule had questionnaire on personal hygiene, food belief, pregnancy, lactation and knowledge regarding common problem etc.

### **Results**

A total of 30 houses were selected as intervention group and 30 as control group for 30 students. In intervention group 77% were in favour of immunization during pregnancy as compared to control (57%) group (Table 1). There were significant changes in the attitude due to intervention. In Intervention group, 80% were in favour of care of women during pregnancy and lactation compared to 47% in control group ( $p=0.007$ ). Eighty nine percent in the intervention group had knowledge of starting semisolid food other than milk during 4–6 months as compared to 31% in control group. ( $p=0.006$ ), which is statistically significant. Fifty six percent in intervention group knew that breast-feeding should be started with in 2 hrs after birth as compared to 31% in control group. Practice of family planning method was found 45% in intervention group as compared to 33% in control group.

Hand washing before meal was known to all in intervention and control group. But, soap and ash for washing hand before meals were used more frequently in intervention (30%, 23%) than control (16%, 13%) respectively. Health Post/ Hospital services were better utilized by intervention group (53%) as compared to control (33%) group

**Table 1:** Impact of Health Education on Knowledge and Practice in the Community

Characteristics	Intervention group (n=30)		Control group (n = 30)		$\chi^2$ , p
	#	%	#	%	
Material used for hand washing after defecation					corrected $\chi^2=2.57$ p=0.46
Soil	9	30.0	12	40.0	
Water	2	6.7	4	13.3	
Ash	8	26.7	8	26.7	
Shop	11	36.7	6	20.0	
Frequency of Nail clipping					corrected $\chi^2=4.41$ p=0.110
Once in a week	19	63.3	11	36.7	
Once in a every 15 days	8	26.7	15	50.6	
Others	3	10.0	4	13.3	
Care during Pregnancy and Lactation					$\chi^2=7.18$ p=0.007
Yes	24	80.0	14	46.7	
No	6	20.0	16	34.3	
Immunization during Pregnancy					$\chi^2=2.70$ p=0.100
Yes	23	76.7	17	56.7	
No	7	23.3	13	43.5	
Starting time of Breast feeding after birth of the baby*					corrected $\chi^2=3.04$ p=0.219
With in 3 hrs	10	55.6	5	31.3	
With in 1 day	4	22.2	3	18.8	
After 1 day	2	11.1	4	25.0	
After 2 days	2	11.1	4	25.0	
Starting time of semisolid/ solid food other than breast milk*					corrected $\chi^2=7.67$ p=0.006
=< 6 months	16	88.9	6	31.3	
>6 months	2	11.1	10	62.5	
Practicing any family planning method #					$\chi^2=0.54$ p=0.46
Yes	9	45	6	33.3	
No	11	55	12	66.4	

\* = Families, which had <5 years child were interviews.

# = Families, which has eligible couple were interviewed.

p<0.05 is statistically significant

## Discussion

Knowledge and practice regarding day to day activity is one of the key factors of healthy life. This simple practice has major role in preventing many hazardous problem of future. Children usually follow their elders and so they (elders) are the major role-playing candidates.

We see that almost all knew the importance of hand washing before meal irrespective of health education. But the material used for washing is equally important and here health education to the people made some change in the practice. Same was true for hand washing after defecation. Here also the materials that were used for washing hand have been changed by the people after health education.

People care for mother during pregnancy is a fact and this community also showed the same in more than 3/4<sup>th</sup> of cases. There were 1/5<sup>th</sup> of the people from intervention group still do not care for pregnant and

lactating mothers. Though this figure is less as compared to non-intervention group. Therefore, to bring changes in the practice, all the family members both men and women need to participate in health education activity. Same is true for immunization during pregnancy for tetanus. Less than 1/4<sup>th</sup> pregnant mothers still are not taking tetanus toxoid as compared to the more than 40% in non-intervention group. Other study have shown that this utilization increased from 2 to 5 times after health education.<sup>1</sup> So there is need to deliver health education giving more emphasis on these areas. People do accept and try to change their knowledge and practice for better one. It is important to educate girls in adolescent age group regarding fertility control methods, so that they have better understanding of shaping their families in future.<sup>2</sup>

Breast-feeding started in more than 50% within 3 hrs among intervention group. Other study had also

shown that there is improvement on initiation of breast-feeding after health education<sup>3</sup>. Even for the food supplementation (weaning), 89% mothers of intervention group started semisolid food to their infant between 4 – 6 months as compared to only 31% in control group. The mothers were very much concerned for their infant and children and usually follow the instruction from health professionals. It was very much clear regarding approach of people for their sickness that after health education, they utilized the existing health facility more frequently. It was seen that breast-feeding promotion is feasible and can lead to behavioural changes after intervention. It was seen that mothers of intervention group started breast feeding (31%) more frequently and timely than control group (5%) as also seen in Nigeria.<sup>4</sup> It has been seen that there is need for educational programs with correct information on breast-feeding and its importance for public to correct misconceptions regarding breast-feeding.<sup>5</sup>

It was realized while conducting health education (program) session that educator should use the language and terms used by the community. In the process of medical undergraduates learning about community and family health, the community also benefited in terms of improvement in their health knowledge and practices.

#### **Acknowledgement**

The authors gratefully acknowledge the help of students for their participation in the delivery of

health education and collection of information. The authors also like to thank to the people participated in this study.

#### **References**

1. Patraik S et al. Study of Impact of Nutrition and Health Day Strategy on the Coverage Rate of Supplementary Nutrition and Health Intervention among the ICD Beneficiaries in a Rural Block of Madhya Pradesh. *Indian Journal of Public Health*. 1999; 43(1) : 32-36.
2. Bhatia V. Fertility control methods: Knowledge of adolescent girls in school of Chandigarh. *Indian J. Med. Sci*. 2000; 54(8); 342-6.
3. Ojofeitimi EO et al. Breast Feeding Practices in Urban and Rural Health Centres: Impact of Baby Friendly Hospital initiative in the ILE-IFE, Nigeria; *Nutrition Health*. 2000 ; 14(2) : 119-25.
4. Davis-Adetogbu AA. Promotion of breast feeding in community: impact of health education program in rural community in Nigeria. *J. Diarrhoeal Dis Res*. 1996; 14 (1) : 5-11.
5. Acosta T et al. Knowledge about breast-feeding and attitude to breast feeding in public of a group of high school students in the Caguas Educational region. *P R Health Sci J*. 1999; 18(3) : 229-39.