



**Original Article:**

**Impact of 'Child-to-Family' Strategy for Health Awareness Improvement at Rural Sectors of Paschim Medinipur District, West Bengal**

**Soumyajit Maiti**, Research Scholar, Dept. of Bio-Medical Laboratory Science and Management, (U.G.C Innovative Department), Vidyasagar University, Midnapore, West Bengal, India

**Kazi Monjur Ali**, Research Scholar, Dept. of Bio-Medical Laboratory Science and Management, (U.G.C Innovative Department), Vidyasagar University, Midnapore, West Bengal, India,

**Siddhartha Sankar Dash**, Medical Officer, Vidyasagar University, Midnapore, West Bengal, India,

**Debidas Ghosh**, Professor, Dept. of Bio-Medical Laboratory Science and Management, (U.G.C Innovative Department), Vidyasagar University, Midnapore, West Bengal, India

**Address For Correspondence:**

**Prof. Debidas Ghosh,**

Professor & Head,

Bio-Medical Laboratory Science and Management,

(U.G.C Innovative Department),

Vidyasagar University, Midnapore – 721 102,

West Bengal, India

**E-mail:** debidas\_ghosh@yahoo.co.in

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**Abstract:**

The present study was carried out to assess the impact of health awareness package through 'Child-to-Family' strategy for empowerment of knowledge, change in the attitude and practice regarding communicable diseases and nutritional deficiency diseases among rural sectors of Paschim Medinipur district of West Bengal from April 2009 to October 2009. School children of 523 from VII to IX standard and their family members (25%) were included in the study. Health awareness level was monitored by self-administered peer reviewed questionnaire method. The study showed that majority of the participants had poor knowledge regarding the concerned diseases at pre-awareness stage. But after imparting the awareness package, knowledge about the said diseases improved markedly in both children and their family members. Therefore, school children have the potential for transmitting their newly acquired knowledge to their family members. The present study enlightened that 'Child-to-Family' Strategy is powerful tool for community health improvement at rural sectors.

**Key Words:** Health awareness, Child-to-family strategy, School children

**Introduction:**

Awareness programme is known as 'social vaccination' programme and it can serve as a powerful tool for the improvement of community health especially at rural sectors.(1) Schoolers can be considered as most effective agent for knowledge spreading to friends and family members. At rural sectors the prevalence rate of communicable diseases and nutritional diseases are very high.(2) It is observed that because of illiteracy, poverty, ignorance, misconception and superstition people of rural area have developed undesirable health attitudes and practices.(3) Policy makers have often recommended that school education can take an indisputable part for knowledge upgradation about health improvement in our community.(4) In our formal education there is a wide gap

between health awareness knowledge present in curriculum and the actual education which is imparted.(4)

In the present study we adopt 'Child-to-Family' strategy for the improvement of healthcare knowledge, attitude and practice (KAP) of the community.

**Materials and Methods:**

The study was carried out in three secondary schools at rural areas in Paschim Medinipur district, West Bengal, from April to October, 2009 on boys and girls of class VII to IX. Twenty five percents of parents of concerned students were selected using random sampling.

Self-administered, peer-reviewed, model questions were formulated for the awareness evaluation regarding knowledge, attitude and practice (KAP) of communicable diseases like diarrhea, dysentery, cholera, malaria, tuberculosis along with nutritional deficiency diseases like anemia, scurvy, ricket and protein energy malnutrition (PEM). The questionnaires were prepared covering the cause, signs and symptoms, mode of infection and social prevention to minimize the disease prevalence. The questionnaire of each disease consisted of 50 questions, with 4 options. The awareness levels were categorized on the obtained marks as poor (<30%), moderate (30-60%), good (61-80%) and excellent (>80%). An awareness package has been developed covering the answers of the questions of the said diseases, and it was implemented through the following phases.

First phase was the health awareness level monitoring of the children and their family members through the questionnaire method. Discussion on KAP for the prevention of above diseases in student community through poster and visual presentation in second phase. Children were said to pass the acquired message to their family members. Post-awareness evaluation of the target was performed in third phase by the same method. The obtained data at pre and post-awareness stages were compared for the impact of the package.

## Results:

A total of 523 students were included in present study. Pre-awareness evaluation showed that the knowledge regarding malaria was of 'poor grade' in 77.7% students but after completion of the programme the grade was decreased to 21.2%. Only 41.1% students mentioned that malaria is transmitted through female anopheles mosquito and 32.1% answered that it can be transmitted from person to person. Majority of the students obtained 'poor grade' regarding tuberculosis where

22.8% and 27.1% could correctly enumerate the mode of transmission of tuberculosis, and mentioned that sputum examination for confirmation of the disease. At post-awareness stage 'poor grade' in this concern was reduced from 81.7% to 22.3%. At pre-awareness stage only 3.3% and 2.8% students obtained 'good grade', but delivery of the package raised the level of knowledge of diarrhea and cholera in 24.2% and 19.6% respectively (Table-1)

<b>Table 1: Impact of awareness programme on communicable and nutritional deficiency related diseases in schoolers.</b>								
<b>Diseases</b>	<b>No. of the students obtained different grades of scores (n=523)</b>							
	<b>Poor</b>		<b>Moderate</b>		<b>Good</b>		<b>Excellent</b>	
	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>
<b>Communicable</b>								
Malaria	77.7	21.2	19.8	49.1	2.5	22.1	-	7.6
Tuberculosis	81.7	22.3	17.6	57.0	0.7	17.5	-	3.2
Diarrhea	66.3	14.5	30.1	53.0	3.3	24.2	0.3	8.3
Cholera	74.3	16.8	22.9	58.5	2.8	19.6	-	5.1
<b>Nutritional</b>								
Anemia	76.6	19.6	18.9	51.7	4.5	25.5	-	3.2
Scurvy	74.3	13.9	23.5	69.5	2.2	14.3	-	2.3
Ricket	84.8	22.9	13.9	64.4	1.3	11.9	-	0.8
PEM	91.0	34.2	7.9	52.1	1.1	13.5	-	0.2

At pre-awareness stage 4.5%, 2.2%, and 1.3% of students obtained 'good grade' about knowledge of anaemia, scurvy and ricket respectively. Majority of students had no knowledge about the cause (81.8%) and the prevention of anaemia (84.9%), only 9.5% knew about signs and symptoms of ricket and 14.5% able to answer that protein deficiency is responsible for PEM. But after imparting the package, numbers of students obtaining 'good grade' were increased in this concern (Table-1).

Pre-awareness evaluation showed that 81.3% family members obtained 'poor grade' regarding knowledge of malaria but it was reduced to 43.1% at post-awareness stage. Where pre-

awareness questionnaire showed that 64.5% of the family members had no knowledge about use of mosquito net to prevent malaria and 51.3% of the respondents mentioned the breeding site of mosquito. At pre-awareness stage about 61.5% of the family members had a misconception that tuberculosis can be transmitted through body contact with infected persons and 79.4% of participants had no knowledge about immunization. But after imparting the package, 50.6% obtained 'moderate grade' regarding tuberculosis. About 78.3% of the members had no knowledge about home management of diarrhea but after implementation of package 'good grade' was increased from 2.6% to 15.4% (Table-2).

<b>Table 2: Impact of awareness programme on communicable and nutritional deficiency related diseases in family members.</b>								
<b>Diseases</b>	<b>No. of the family members obtained different grades of scores (n=131)</b>							
	<b>Poor</b>		<b>Moderate</b>		<b>Good</b>		<b>Excellent</b>	
	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>	<b>Pre(%)</b>	<b>Post(%)</b>
<b>Communicable</b>								
Malaria	81.3	43.1	18.3	39.8	0.4	16.0	-	1.1
Tuberculosis	85.4	39.8	14.5	50.6	0.1	8.9	-	0.7
Diarrhea	71.2	32.9	26.2	49.5	2.6	15.4	-	2.2
Cholera	76.2	33.2	22.3	46.4	1.5	18.4	-	2.0
<b>Nutritional</b>								
Anemia	90.8	45.8	8.1	43.6	1.1	10.4	-	0.2
Scurvy	94.6	46.4	5.4	42.2	-	11.3	-	0.1
Ricket	96.1	49.9	3.9	40.6	-	9.5	-	-
PEM	98.7	52.3	1.3	39.2	-	8.5	-	-

Only 1.1% of the members possess 'good grade' about anemia and no one of the members obtained 'good grade' regarding other nutrition related diseases. Majority had inadequate knowledge about low cost foods rich in iron and protein. At post-awareness stage knowledge level was improved markedly, where 'good grade' was obtained regarding anemia in 10.4%, scurvy in 11.3%, ricket in 9.5% and PEM in 8.5% (Table-2).

## Discussion:

Information was given to the schoolers about preventive approaches of communicable and nutritional related diseases to improve the knowledge of the students as well as their family members.

Results focused that majority of the students had poor knowledge about the cause and prevention regarding malaria. Tuberculosis is common at rural areas but students don't possess sound knowledge about modes of transmission and its

prevention. This observation was not parallel to the report of Goel *et al.* (5) and this may be due to variation in socio-economic status. In spite of higher level of knowledge of students regarding diarrhea and cholera at pre-awareness stage, majority of them had no proper knowledge about the methods of preparation of home made oral rehydration solution (ORS) used for this purpose which is consistent to the report of other. (6) Anaemia is very common of rural girls but they had no knowledge about its cause and prevention by the local available low cost foods. Levels of knowledge about rickets, scurvy and PEM were poor among the schoolers which may be due to less exposure to the health improvement programmes.

Majority of family members had no proper knowledge about immunization schedule and nutritional deficiency diseases. Awareness of malaria was inadequate among family members. Some use mosquito net at night though, most of the members could enumerate about home management of diarrhea. Very

few had conception about proper nutritional requirements for the management of nutrition deficiency diseases by the supplementation of low cost and easily available foods. This poor knowledge of the rural community may be due to the limited sources of health information.

Children who were exposed to this awareness programme had much better understanding about the causes, symptoms and the prevention of diseases which was proved from the post-awareness evaluation. Knowledge level about health care of family members was improved at the post-awareness stage. Many studies showed that school health education as the vehicle to improve health knowledge, attitudes and practices in the students (1,7) as well as in their family members.(8) They can exercise their knowledge and thereby reducing the incidences of diseases which promotes growth and positive development of the community.

Result concluded that school education is a powerful tool for the community health improvement especially at rural sectors through 'Child-to-Family Strategy'.

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