Nutrition Education through Community Participation

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Introduction

Community participation is widely regarded as the major contributing factor of social development. In developing countries perhaps majority of the population are still beyond the reach of even the most minimal health, nutrition, education and social services. For the last few decades, it has gained wider attention that without participation of mass population in a community, health care and nutrition services are impossible. The fundamental principle is that the people of the community is the key body to be involved in real decision making at every stage--identification of problems, study of feasibility, planning, implementation and evaluation. It is estimated that during 1987 a total of 14 million children died due to undernutrition and its associated diseases [1].

According to a report of International Planned Parenthood Federation, 1982 community participation generally means " a group of people within a specific geographical area who have interests and needs and who take an active part in furthering one or more of those through voluntary collaboration". At one end of the spectrum, communities may initiate, design and take total responsibility for action programmes to meet their common needs. Alternatively, the community members may participate in some of the deliberations and actions initiated, designed and implemented by others outside the community [2].

Proper health of the people in the community cannot be achieved as long as they are ignorant. Organized efforts are essential to attack these problems. The Institute of Nutrition and Food Science, University of Dhaka in Bangladesh have been trying for more than 10 years to develop appropriate strategies involving school children, mothers and rural women volunteers to impart nutrition education in the selected communities [3,4,5]. The Chittagong hill tracts districts are about 13,190 sq. kilometers and is situated on the south eastern part of Bangladesh [6].

A Multisectoral Community Development Programme is being executed by the Chittagong Hill Tracts Development Board (CHTDB) since 1982 with the assistance of UNICEF. The main objective of the project was to improve the socio-economic condition and physical quality of life of the children, youths and women of disadvantaged families in the Chittagong Hill Tracts area in selected mouzas (a mouza consists of few villages) through providing:-

- primary health care services with emphasis on Nutrition education at grass root level,
- input for reducting nutritional anaemia,
- input for reducing water borne diseases,
- input for reducing worm infestation diseases and
- services facilities to increase education along with active participation of the community.

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The tribal women Nutrition volunteers from 25 selected mouzas were selected by community members through their headman (local tribal leader) and were responsible for disseminating nutritional knowledge in their communities. This paper will have elaborations on the methods and efficacy of nutrition education through community participation between June, 1987 to February, 1988.

Methodology

Approaches through community centres

The community centres in the mouzas are used by the local tribes as their club for group discussion, recreation, games etc.

It is known that about 56.5% of the population visit these centres weekly[7]. Thus it appears that the community has shown their enthusiasm in accepting these community centrses as a means for community development through participation and these centres are being also used for discussion and settlement of the social and cultural problems. The trained women Nutrition Volunteers performed their duties in disseminating the nutritional knowledge to their tribal population through the meetings of these community centres as well as through home-visiting. Again they also motivated people in order to cooperate in the activities of growth monitoring.

Selection of the trainees and conduct of Nutrition education.

There exists a mother ruling social system in tribal area which is contrary to that of the plainland[8]. As such 42 female trainees were purposively selected from 25 mouzas of Rangamati, Khagrachari and Bandarban hill districts. The trainess were exposed to ten days nutrition orientation with emphasis on nutritional care for the children and the mothers. The criteria for selecting the trainees were-

- elementary level of education, permanent resident of a particular mouza,
- understandability of Bangla language and having age between 15 to 40 years.

The training was undertaken with a preset syllabus (Annexure-1). Training consists of lectures, discussion, visual aids, live demonstration of fooditems and preparation of weaning foods. The trainings were conducted by qualified female Instructors.

Growth monitoring with community involvement

The male instructor had to move to the villages (para) for weighing the children under two years of age. Bangladesh National Nutrition Council approved bar scales were used for weighing purpose. The local "karigor". (Assistant leader of a tribal para) or any other elder member of the community actively assisted in the process of weighing measurement of the children. The weight was then plotted in the growth charts. During plotting, the respective mother or a gurdian of a child was explained about the nutritional status of the weighed child and appropriate dietary advice was given. The gathered community members were then given Nutrition education by the instructor. Gomez classification for weight for age based on Harvard standard (Stuart Stevenson, 1959) was used in the assessment of the nutritional status of the children.

Results

The community participation approach was used in the dissemination of nutritional information as well as weighing

measurements. The ultimate impact of Nutrition education organised for the women nutrition volunteers was assessed with the results of nutritional status of the under two years children. However, the reflection of these measurements may be contributed by other factors such as seasonality, educational opportunities, health care facilities etc. The following tables have shown weight measurements in three consecutive rounds. It may be mentioned here that during the 2nd round, two refresher's Nutrition education programme of six days duration were conducted. The data on the follow up measurements for the same children is given in Table-1 and Table-2 in two areas of Rangamati and Bandarban with three months interval period from one round to the other.

Table 1. *Percent distribution of children by nutritional status (weight for age) in Rangamati (N= 52)*

Round of measurement	Normal	1st degree	2nd degree	3rd degree
First round	15.38	48.08	26.42	9.62
2nd round	9.62	30.70	55.77	3.84
3rd round	9.62	44.23	46.15	0.0

It appears from the above table that the percentage of 3rd degree malnourished cases have shown very positive improvement within a period of about nine months.

Table 2 *Percentage distribution of children by nutritional status (weight for age) in Bandarban (N = 82)*

Round of measurement	Normal	1st degree	2nd degree	3rd degree
1st round	13.41	35.37	36.59	14.63
2nd round	9.76	46.34	34.14	9.76
3rd round	7.32	45.12	37.80	9.76

This table shows that the percentage of 1st and 2nd degree malnourished children have increased leading to decrease in the number of 3rd degree malnourished cases. This findings of Bandarban district are not exactly same to that of Rangamati district as described in Table - 1. Furthermore, the targetted tribal people of Rangamati were mostly Chakma and Tonchonga where as the targetted population of Bandarban belonged to Marma tribe, therefore in their perception there could have some variations.

Discussion

People usually talk of community participation but very few people involve the community in the process from planning the implementation of a programme. Concuct of Nutrition education through the trained nutrition volunteers is therefore is of the process of democratization of own communities hope and aspiration based on basic principle of active participation. This study has shown that the women nutrition volunteers being selected by community

members were regularly disseminating the nutritional information to the community members through community level meetings. Though an intensive evaluation has not been conducted to assess the receipient community's health behaviour and dietary practicces yet, the results of the growth monitoring have shown impact. There has been consistent decrease in severe malnutrition (3rd degree) in both Rangamati and Bandarban (Table 1 & 2). But there was also a reduction in the number of normal children. Further study is required to explain this.

At the beginning of Nutrition education, the average score of nutritional knowledge among the women Nutrition volunteers was 46.28% and it increased to 84.03% after completion of the basic training. During the 2nd refresher's course, this average score raised to 93.50% showing a significant improvement in their nutritional knowledge[9].

This is an ongoing programme and it is expected that positive contribution in the improvement of nutritional status of the community can be achieved successively through community participation. Similar studies have been conducted in Turkey with school teacher and Imams as family planning motivators. During pretest of knowledge on family planning, the teachers scored 29.7% and Imams (religious leader) scored 23.1%. After giving them training, the scores were 79.8% for teachers and 46.2% for Imams. When this impact was studied over a period of six months, the proportion of married women using contraception increased by 16.4%, 13.8% utilizing the efforts made by only trained teachers and both Imams as well as trained teachers respectively. Therefore, utilization of community leaders have been found to work in the positive increase towards use of contraception[10].

Another study in Bangladesh in three upazilas of khulna district have shown that the volunteers selection process involving community resulted better implementation in outreach immunization programme[11]. The volunteers selected in Fultala upazila (sub-district) by the community members were in higher level of education showing better performance compared to these volunteers selected by formal political leaders as well as Health and Family Planning fields stuffs.

In terms of producing of vegetables, a highly successful community participation programme has been reported from Matete in Zaire. The Agriculture Instructor started training programme for 40 people with age ranging 16 to 45 years have shwon imporvement in cultivation and sale of vegetables after a period of one year[12].

Therefore, the involvement of the community members in selecting tribal women Nutrition volunteers, assisting in growth monitoring activities as well as in disseminating nutritional information to the population will surely pave the way for nutritionally sound and healtheir tribal communities.

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Annexure - 1

Syllabus for the Nutrition Training Programme

1. Definition and prevalence of malnutrition in Bangladesh. Cause of malnutrition, direct and indirect causes. Population education and nutrition.
2. Function of food--Energy giving food, body building and repair food, protective foods and nutritive values of different food items.
3. Nutritional disorders--Identification and dietary management on individual and community level with special reference to protein-energy malnutrition, Night blindness, Anaemia, Ariboflavinosis and Goitre.
4. Importance of colostrum and breast-feeding, Food for different groups--Infants, growing children, pregnant and lactating mother. Formulation and preparation of weaning and supplementary food.
5. Balanced diet--low-cost and high-cost diet. Formulation of balanced diet with locally available food items for different physiological groups.
6. Food misconceptions and taboos, prevention of loss of nutrients during processing and cooking, and preservation of food at home level.
7. Food production at home level (poultry raising, kitchen gardening and fish production).
8. Methods, approaches and channels used in disseminating nutrition information to the public and various groups.