

# Mobile Training Programme on Health and Nutrition for the Mohila Samabaya Samity members of Bangladesh Rural Development Board and Its Evaluation.

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## Introduction

Bangladesh is the eighth most populous country in the world. The country faces formidable long term problems of development. Majority of the people live below the poverty line. Poverty is endemic here. The cumulative effect of economic, social and political deprivation of the masses over time and the population pressure is very severe<sup>1</sup>.

Poverty is a hard reality of Bangladesh specially among the rural population, one aspect of this reality is hunger and malnutrition; manifested by very poor nutritional status of women and children which results in high rates of infant and maternal mortality, high rates of their morbidity and high incidence of water borne diseases, worm infestation and communicable diseases in them<sup>2</sup>. In such conditions, development priorities should be given to economic growth, employment generation and population control. Rural people have many ideas about food which conflict with nutrition science. Often these believes work to the disadvantage of infants, pregnant and lactating

mothers in particular<sup>3</sup>. Training imparts knowledge and develops skill<sup>4</sup> and continuous training programme would make it possible to impart basic knowledge and to motivate the women to bring changes in their work and way of life as well as to develop leadership among the rural women<sup>5</sup>.

The ultimate aim of this mobile training programme in collaboration with BRDB (W.P ) is to improve the quality of life of the rural women through their active participation and to motivate them for adopting modern appropriate techniques through training. It is the process of improving the sensory motor proficiency and important aspects such as developing of knowledge about proper main-tenance of health.

Quality of life of rural women, can be facilitated by imparting appropriate training for the Mohila Samabaya Samity (M.S.S.) with aspiration and advocacy on primary health care. The present study was aimed at the participants to evaluate pertinent

aspects of the mobile training programme on health and nutrition.

### Methods and Materials

Thirty three out of 100 upazila preselected by BRDB (W.P) were purposively selected for the study. A group of 30 (thirty) trainees were also selected by local Upazila BRDB officials from Mahila Samabay Samity members of Womens' programme. A total of 1000 participants were trained from 1st Jaunary to 30th June 1989.

The training programme was conducted by a mobile trainers unit. Doctors, Public health experts and a few paramedics were included in the trainers unit. In each upazila 6 days training programme on health and nutrition was conducted. Before training knowledge of the participants on different aspects of health and nutrition was assessed by a self-responding and structured pretested questionnaire (Bengali version) like Islam (1988) and Ali et al (1988)<sup>6,13</sup> which included the desired variable like knowledge on nutrition, food habit, personal hygiene, use of safe water, Infectious disease, preventable diseases by immunization and oral saline preparation.

In addition to lecture in easy language visual teaching aids including training manual, booklets, posters, banners, slides and films shows were used in the training session. Besides, original food articles from local sources were demonstrated in the lecture class. The trainees were taught practically how to prepare oral saline and low cost balanced diet with locally available food articles.

After training, it was evaluated in terms of trainee's knowledge on different aspects of health and nutrition following the same procedures. Data thus collected were analysed by a Computer and the important findings are presented. Z-test was done to show difference of knowledge at pre and post training stage.

### Results

Socio-economic and demographic characteristic of the trainees are shown in Table 1. Most of the trainees were within age 15-45 years and their mean age was  $32.6 \pm 8.8$  years. Majority of the trainees (76.8%) were literate of whom highest 41.6% had education Class V-IX, 23.2% of total trainees were illiterate. Only 7.9% trainees were unmarried while 77.9% were married, 8.6% widow, 3.5% divorced and 2.1% were living separately from their husbands. Mean duration of their conjugal life was 17.1 years. The trainees were of different occupations. Majority of the trainee's (31.1%) husband's source of income was agriculture followed by 27.7% business, 21.9% service, 12.1% Day Labour, 4.7% poultry and livestock while remaining 1.5% were involved in other occupation. Mean income of the trainee's family was Tk.1300.00 (Taka Thirteen Hundred only).

Table 2 shows the trainee's knowledge about food items for body growth. At pre-training stage 47.6% of the trainees mentioned that fish, meat, milk, egg, seeds of bean, ground nut, small fish and pulses were required for body growth as against post training majority of

82.2%. The difference in the knowledge level between pre and post training stages was significant ( $P < .001$ ).

Whether additional nutritious food is required during pregnancy or not and the knowledge of the trainees on which type of additional food is required during pregnancy have been shown in Table-3. Before training 55.9% trainees stated that additional balanced (rice, wheat, fish, meat, milk, egg, green vegetable fruits, sugar, small fish and dry fish) food was required during pregnancy, After training 89.1% opined in favour of previous answer.

Answer regarding washing of hand after defecation at the pretraining stage highest 56.8% trainees mentioned that it should be done with clean water and soap, 17.5% with water and soil and 15.5% with water and ash. After training the corresponding answers were 66.2%, 7.2% and 24% respectively (Table-4).

Regarding knowledge about the preparation of ORS at home at the pre-training stage 9% trainees mentioned that ORS needs sugar and water. 5.6% mentioned salt and water

and 85.4% mentioned one pinch salt and one handfull sugar or molasses in half seer of water. At the post training stage it was 2.6%, 2.6% and 94.8% respectively for the above mentioned three groups of preparations. The difference between knowledge level at pre and post training stage was significant. ( $P < .001$ ). see table 5.

At the pre-training stage 82% of the trainees mentioned tuberculosis, cholera, dysentery, kala-azar, tetanus, measles, diarrhoea, diphtheria and polio as infectious diseases and the rest (18%) mentioned heart diseases, diabetes and cancer. At the post training stage it was 96.5% and 3.5% respectively for the above mentioned two groups of diseases. The difference between knowledge level at pre and post training stage was significant. ( $P < .001$ ), table-6.

At the pre-training stage 67.4% mentioned that Diphtheria, whooping cough, tetanus, tuberculosis, measles and polio can be prevented by immunisation while S.T. after-training the response was 93.7%. The difference in knowledge at pre and post training stages was significant. ( $P < .001$ ), table 7.

**Table 1.** Socio-economic and demographic characteristics of the trainees

N=1000

a. Mean age = 32.6 years ± 8.8 years
b. Education = 76.8% Literate
c. Marital status -
Unmarried - 7.9%
Married - 77.9%
Widow - 8.6%
Divorced - 3.5%
Separated - 2.1%
d. Mean duration of conjugal life - 17.1 years
e. Source of income - Highest 31.1% agriculture
f. Mean income - Tk. 1300.00

**Table 2.** Distribution of Trainees by knowledge about nutritious food for body growth

Food items for body growth	Pre-Test		Post-Test	
	Number	Percentage	Number	Percentage
Rice, Potato, Wheat, Molasses & Sugar	333	33.33	139	13.3
Fish, meat, milk, eggs seeds of bean, Ground nut, small Fishes & Pulses	476	47.6	822	82.2
Vegetables, Fruits	183	18.3	38	3.8
Oil, Ghee	08	0.8	01	0.1
D4				
D4				
<b>Total</b>	<b>1000</b>	<b>100%</b>	<b>1000</b>	<b>100%</b>

Z=16.2, P<.001

**Table 3.** Distribution of Trainees by knowledge about need of Additional nutritious food for pregnancy

Additional nutritious food to be given	<u>Pre-Test</u>		<u>Post-Test</u>	
	Number	Percentage	Number	percentage
Rice, Fish, Meat pulses	374	37.4	109	10.9
Rice, Wheat, Meat, green vegetables, fruits, sugar, small fishes & dry fish (sutki)	559	55.9	891	89.1
No need of additional nutritious food.	67	6.7		
Total	1000	100%	1000	100%

Z=16.6, 2, P&lt;.001

**Table 4.** Distribution of trainees by knowledge about hand washing after defecation.

Washing of hand after defecation by	<u>Pre-Test</u>		<u>Post-Test</u>	
	Number	Percentage	Number	Percentage
Clean water	100	10.0	26	2.6
Clean water & soap	568	56.8	662	66.2
Water & soil	175	17.5	72	7.2
Water & wash	155	15.5	240	24.0
Do not wash	02	0.2	0	
Total	1000	100%	1000	100%

Z=4.3, P&lt;.001

**Table 5.** Distribution of Trainees by knowledge about preparation of ORS at home

preparation of ORS	<u>Pre-Test</u>		<u>Post-Test</u>	
	Number	Percentage	Number	Percentage
Sugar plus Water	90	9.0	26	2.6
Salt plus water	56	5.6	26	2.6
One pinch salt and One handful sugar or molasses in half seer water	854	85.4	948	94.8
Total	1000	100%	1000	100%

Z=7.1, P&lt;.001

**Table 6.** Distribution of Trainees by knowledge about infectious diseases.

Infectious disease	Pre-test		Post- test	
	Number	: Percentage	Number	: Percentage
Tuberculosis/Cholera/ Dysentery/Kala-azar/ Tetanus/Measles/ Diphtheria/Polio	820	82.0	965	96.5
Heart diseases/ Diabetes/ Cancer.	180	18.0	35	3.5
Total	1000	100%	1000	100%

Z=10.5, P<.001

**Table 7.** Distribution of Trainees by knowledge about diseases can be prevented by immunization.

Infectious disease	Pre-Test		Post-Test	
	Number	: Percentage	Number	: Percentage
Cholera, Malaria, Kala-azar, Filaria.	258	25.8	55	5.5
Diphtheria, Measles, Tuberculosis, Polio, Whooping cough, Tetanus.	674	67.4	937	93.7
Disease can not be prevented.	68	6.8	08	0.8
Total	1000	100%	1000	100%

Z=14.9, P<.001

## Discussion

The health and nutritional status of a community is affected not only by the kind and quality of economic status and food available but also by the knowledge. Awareness of basic societal influence is of obvious value to the educators. The prescribed solution must be made in the existing local circumstances<sup>7</sup>. Nutrition is the most important single factor affecting health. It plays a vital role in the prevention and control of many diseases and conditions. The most important health resources is health knowledge<sup>2</sup>. The lack of knowledge about the importance of malnutrition and under-nutrition is the main obstacle to social and economic development and as conditioning factors in a wide range of disease is being increasing by recognized<sup>8</sup>. Health and nutrition education programme has a great impact for improvement of health status of children and development of awareness to lactating and child-bearing mothers<sup>9</sup>.

The findings of this study more or less correspond with Huq et al<sup>10</sup>. After-training nutrition-knowledge of the M.S.S. member increased to 82% ( $P < 0.001$ ). The study reveals that 66.2% respondents have been using clean water and soap for hand washing after defecation. The difference between pre and post is significant ( $P < 0.001$ ). It is reported that the greatest need of the people regarding nutrition education is for practical nutrition advice in straight forward and free language, easily understandable to the rural people<sup>11</sup>. The results obtained from both pre

and post test were compared and analysed to find out effectiveness of the mobile training programme on health and nutrition was also found to be significant statistically. The informal health and nutrition training programme system at present is aimed at not only to bring about a change but also maintaining of good health. Well co-ordinated and synchronized efforts of health and other social and development sectors are needed for supporting communities in achieving their basic needs for a better quality of life<sup>12</sup>. This is envisaged to facilitate inter-sectoral co-ordination for supporting M.S.S. initiative for health and socio-economic development in our rural community people.

## Summary

Development programme in specific sectors have served as an entry point for the introduction of comprehensive programme, which encourage women's participation in wider developmental activities specially for the rural development. The study involved a total of 1000 trainees from 33 Upazilas of different districts in Bangladesh. The mean age of the trainees was 32.6 years  $\pm$  8.8 yrs. The mean income was close to Taka 1300.00 per month and 41.6% had class V-IX educational level and it was clear that the trainees literacy rate was higher than our national literacy rate. The majority of trainees were married, (77.9%) and the duration of their conjugal life was 17.1 years. The results obtained from both pre and post-tests were compared and analysed to find out effectiveness of the training programme. The

difference in knowledge level at pre and post tests training was statistically significant ( $P < 0.01$ ).

### Acknowledgements

We thankfully acknowledge for the assistance of BRDB (W P) officials during this study, specially the Joint Director (WP). We are particularly grateful to the members of M.S.S. for their co-operation and co-ordination.

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