

## The Role of NGO Communication in Promoting Health A Study on a Village in Bangladesh

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**Abstract:** *The study explores the role of NGO communication<sup>1</sup> in promoting rural health in Bangladesh. The role of NGO communication was measured in terms of its effects<sup>2</sup> on its target people particularly by measuring their knowledge, attitude and practice levels towards five health issues--i) water, sanitation and cleanliness, ii) food and nutrition, iii) women health iv) child health and v) epidemic health. One study group (NGOs' target people) and one control group (non-target group) were selected in the same village with similar socio-economic conditions for comparison to know the NGO communication's effects. The t-test results show that the NGO's health communication had no significant impact on the practice level of its target people towards the five health issues. It had no effect on their knowledge level towards child health though it had significant effects on the same level towards water, sanitation and cleanliness, food and nutrition, women health as well as epidemic health. The NGO communication also failed to change their attitudes towards women, child and epidemic health issues. The study finds that the NGOs did not use all of their approaches, methods and materials of health communication in the study village. The study suggests that NGOs should consider development and health holistically while formulating communication strategy for promotion of the people's health in Bangladesh.*

### Introduction:

Health, a holistic phenomenon is interrelated with socio-economic, politico-cultural condition and environmental spheres of man's life. Health is not only an area of medical science, but it is a subject of study under various disciplines, including sociology, economics, political science, anthropology, communicology and even, linguistics for a long. The new paradigm of health management endorses health information, people's health knowledge and awareness building as well as health

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<sup>1</sup> NGO communication simply comes to mean communication initiated and carried out by the NGOs. It refers to the vary process of development communication initiated by NGOs (Haque, 1999). In this process of communication both as source and receiver, NGOs play the determined role.

<sup>2</sup> Effects are concerned with the change in awareness, knowledge, attitude, skill and practice (AKASP) which are micro-socio-psychological (Mercado, 1992).

education as a vital force in the process of preventive health care. That means health is not considered mere an issue of medical science nor is measured from curative point of view. Inclusion of preventive measures in overall health promotion makes communication a vital component since preventive measures incorporate psycho-behavioural aspects, which largely fall into the domain of communication (Haque, 1999). A complex interrelationship exists among communication, health and development. In fact, communication assists development of societies (Tuazon, nd). Communication alone can increase the intended audience's knowledge and awareness of a health issue, problem, or solution; influence perceptions, beliefs, and attitudes that may change social norms; prompt action; demonstrate or illustrate healthy skills; reinforce knowledge, attitudes, or behaviour; show the benefit of behaviour change; advocate a position on a health issue or policy; increase demand or support for health services; refute myths and misconceptions and strengthen organisational relationships (NCI, nd). When communication used for the peoples' health promotion is called health communication, which is part of study of almost every human discipline. Schiavo (2007) says:

"Health communication is a multifaceted and multidisciplinary approach to reach different audiences and share health-related information with the goal of influencing, engaging and supporting individuals, communities, health professionals, special groups, policy makers and the public to champion, introduce, adopt, or sustain a behavior, practice or policy that will ultimately improve health outcomes."

Health communication is an extremely broad research area, examining many different levels and channels of communication in a wide range of social contexts. The primary levels for health communication analysis include intrapersonal, interpersonal, group, organisational, and societal communication (Kreps et. al., 1998). Health communication inquiry involves examination of a broad range of communication channels. Face-to-face communication between providers and consumers, members of health care teams, and support group members are the focus of many health communication studies. A broad range of personal (telephone, mail, fax, e-mail) and mass (radio, television, film, billboards) communication media are also the focus of health communication inquiry (Kreps et. al., 1998).

In Bangladesh, extreme density of population, massive poverty and low rate of literacy makes people highly affected to various diseases. Despite of public health care services, Bangladesh is still lagging in health care services for the poor as well as the affluent. Because, all infrastructures of the state-run hospitals remain unused due to lack of physicians, medicines, referral system, maintenance and equipment (National Health Policy 2011). Even, according to the "Medical Equipment Survey 2012 of World Bank, more than half of the medical equipment in public hospitals of Bangladesh remains dysfunctional, unused or underused. The government's existing health facilities do not fulfill the people's demand also due to misappropriation of fund, low quality service, lack of cordiality and many other reasons. With scores of key health programmes stymied by corruption, mismanagement and political interference, the Bangladesh government was to outsource projects involving \$200 million to NGOs (IANS, 2006). These circumstances paved the way for the NGOs to intervene into the health sector taking health as one of their prioritised development agenda. Considering the existing realities, the NGOs do not confine their responses only to curative measures, rather, they have framed policies to generate preventive actions among the people by bringing them under their extensive health education or health communication programmes. With nourishing this view, they have been using all the available means of communication ranging from mass media to folk ones (Haque, 2009).

In Bangladesh, hundreds of NGOs engaged in health communication particularly for the grassroots. NGOs claim themselves as the people-centered organisations. Most of the NGOs have health programmes, in which building of health awareness or health education or health communication is an integral part. NGOs' successes in the health promotion have been widely acclaimed through vast body of NGO literatures (Haque, 2009). But there exists an undeniable gap between the rhetoric and reality. To identify the reasons of this inconsistency along with other factors, communication and its functioning process should be critically researched. Though NGOs' awareness in promoting health at various levels has been investigated by researchers, only a few of these studies focused on the NGO's health communication process which is considered the catalyst in promoting people's health. Specially, earlier studies have failed to address NGO's health communication process rather NGOs' own researchers investigated only their project impact on the certain health issues (Haque, 1999). This visibly creates a knowledge

gap to understand a major part of the NGO's efforts. This creates the logical ground to conduct this study.

## 2.0 Objectives of the Study

- to know the NGO's health communication approaches, methods and materials<sup>3</sup> to explore its role in the study village;
- to find out the effects of NGO communication on health related knowledge, attitude and practices of its target people in the study village;

## 3.0 Methods and Materials

Bera Bonkul village<sup>4</sup> in Shibganj upazila of Chapainawabganj, a northern district of Bangladesh, was selected purposively for the study. Three NGOs BRAC, PROSHIKA and Rajshahi based Association for Community Development (ACD) were taken under the study as these three NGOs had health communication activities in the study village. Thirty-five women members of the NGOs were selected as the respondents as they were the target groups (TG) of their health communication activities.

A non-target group (non-TG) comprising thirty-five women was selected from the same village randomly for comparison to the TG. The women under non-TG did not involve with any NGO's activities in the village and the outside. The women who were not covered under the NGOs' health communication activities had socio-economic background and access to mass media similar to the study group (TG) which were later cross-checked and showed through house-to-house survey data and analysis.

The role of NGO communication was measured in terms of its effects on the target people particularly by measuring knowledge, attitude and practices towards the three NGOs selected health messages under five health issues. The five health issues were:

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<sup>3</sup> Communication has a number of components that influence its effect on learning. Learning (at theoretical level) and awareness, knowledge, attitude, participation, practice and skill (at the conceptual level) should be considered as potentials effects of communication (Mercado, 1992). The communication components include process (one-way, two-way and three-way), elements (source, message, channel, receiver), materials (lecture, discussion, visit etc), approaches (individual, group, mass) and strategies.

Health communication activities of the three NGOs in the village were taken as the unit of analysis of the study.

1. Water, sanitation and cleanliness 2. Food and nutrition 3. Women health 4. Child health 5. Epidemic health.

The health messages were collected from the NGOs' field offices and headquarters. Then more common health messages, which had been disseminated among their women members, were selected and categorised into the five health issues for testing.

These health messages were tested on the respondents to know the role of NGO's health communication specially for measuring knowledge, attitude and practices of the NGOs' women beneficiaries. The role of NGO communication was also measured by exploring health communication approaches, methods and materials of the NGOs used in the study village.

Two interview schedules were used for collecting the basic socio-economic-demographic data and health communication activities from the village and the NGOs' offices. Another interview schedule was used for measuring knowledge, attitudes, and practice of the both groups. The interview schedule was pre-tested on ten respondents (five in study group and five in control group).

**3.1 Measuring Knowledge<sup>5</sup>:** Different types of questions are used for measuring knowledge. These types are similar to those used by teachers in measuring knowledge gained by students (Mercado, 1992). Among the types described by Mercado, multiple-choice questions were used in this study for measuring knowledge level of the respondents. The respondents were asked to choose the right and best answer among three or more. For example: What types of latrine are used to prevent disease? a. Sanitary (pacca) b. Pit (open) c. Other open latrines.

When all the choices of the question were equally right, any one of them was counted the right answer. Example: Please say at least one way of water purification a. Boiling b. Filtering c. Mixing alum d. Mixing bleaching powder e. Don't know.

If the respondent was unable to name at least one way of water purification, the answer was not counted.

Knowledge was measured in terms of the number of exact answers to a series of questions on a health issue presented to the respondents. The

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Knowledge is one of the most important human variable that is affected by information. Knowledge refers to the amount of facts or information about an idea object or person, which a person knows or possesses (Mercado, 1992).

number of correct answers was counted. And a numerical weight was assigned for each question. If the respondent could give appropriate answer of any question 1 was assigned for the question.

**3.2 Measuring Attitude<sup>6</sup> :** Attitude can be measured by a questionnaire or interview schedules with a series of opinionated statements towards a person, an object or an idea (Mercado, 1992). For measuring attitude towards a health issue under this study, the respondent was asked to indicate her feeling towards the statement in such terms or dichotomies as agree or disagree, believe or disbelieve and like or dislike etc. Using the Likert scale, the respondent was asked to respond to each of the statements in terms of five degrees of agreement/believe/like or disagreement/disbelieve/dislike. Each statement was warded positively about health. For example:

Do you agree that one may be affected by diarrhoea or dysentery after drinking polluted water? The respondent could respond in any one of the following categories.

a. Strongly agree b. Agree c. No comment d. Disagree e. Strongly disagree.

The above categories of responses were assigned weights that were, strongly agree =5, agree =4, no comment =3, disagree =2, strongly disagree =1.

**3.3 Measuring Practice:** Mainly two types of questions were used for measuring practice level of the respondents towards the health messages. Such as: 'Yes' or 'No' type and multiple choice questions. For example:

Do you eat extra and nutritious food during pregnancy? a. Yes b. No.

When the above question was not applicable for a respondent, she was asked an alternative question as Had you said anybody to take extra and nutritious food in pregnancy period? a. Yes b. No. If a respondent said yes, practice score of the question was counted too. Because, the respondent advocated the health practice to others.

Another type of measurement of practice questions was the multiple type, which was similar to those of knowledge question. In measuring the practice level, a numerical weight 1 has been assigned for each question.

<sup>6</sup> Attitude is another variable that is usually affected by information. Attitude is learned predisposition to respond in a favorable or unfavorable manner to a particular person, object or idea (Roberts, 1995). That means attitudes represent primarily a positive or negative evaluation of an individual, behaviour, belief or thing.

### 3.4 Hypothesis

It could be argued that if the socio-demographic characteristics of two groups of people are similar and their exposure to communication media is different, the ultimate impact on the people's attitude, knowledge and practice would be different. This difference could be attributed to the functioning of the different medium or media to which people of a group, have been exposed in addition to the media common to the two. If this difference is significant, the role of that or those particular medium or media can be described as significant and the vice-versa.

In Bangladesh, the NGOs engaged in health communication try to influence the people's knowledge, attitude and practices related to health simultaneously. Their health communication messages are purposively disseminated among their target people. So, the role of the NGO communication in health promotion can be measured in terms of differences between health related knowledge, attitude and practice of their target group (TG) and non-target group (non- TG) having the similar access to mass media and socio-demographic characteristics. On the basis of this conceptual framework, the following hypotheses were made.

H1: In general, knowledge level of TG would be higher than the knowledge level of non-TG on each health issue.

H2: In general attitude level of TG would be higher than the attitude level of non-TG on each health issue.

H3: In general practice level of TG would be higher than the practice level of non-TG on each health issue.

For testing of the above hypotheses, the t-test was used by applying SPSS programme of the computer. Data were collected both from primary and secondary sources using questionnaire, interview and observation method. Different statistical tools were used for analysing the data.

### 4.0 Socio-Demographic Characteristics of TG and non-TG

It is important to find out whether the socio-demographic characteristics between the study group (TG) and control group (non-TG) were the same or having significant differences.

4.1 Age, sex and religion: All the respondents interviewed from TG and non-TG were married women and Muslims. The age of the respondents both from TG and non-TG ranged from 20 to 53 years. The age ranges indicated that the respondents were young and middle aged women. The mean age of women in the TG was 31.14 years while that of women in non-TG was 32.29 years.

4.2 Respondents' education: Table-1 presents the respondents level of education in the two groups classified into seven categories.

Table-1: Percentage distribution of the respondents by level of education.

Level of education	TG (%)	non-TG(%)
Can't read and write	5.71	28.57
Can sign only	62.86	34.29
Primary	20	17.14
Lower Secondary	5.71	11.43
Secondary	2.85	5.71
Higher Secondary	2.85	2.85
Higher education	0	0

Source: Field survey

Table-1 shows that the two groups of women were similar levels of education approximately. Only a notable difference found as more women (62.86%) in TG were able to put signature than in non-TG (34.29%).

4.3 Respondents' employment status: Apart from their household activities, 5.71 percent of the respondents in TG worked outside home while only 2.85 percent worked outside home in non-TG (Table-2).

Table-2: Percentage distribution of the respondents by their employment status

Work status	TG(%)	non-TG(%)
Work outside home	5.71	2.85
Household work	94.29	97.14

Source: Field survey

4.4 Husband's occupation: Table-3 shows that among the husbands of the respondents in TG, the business profession was the highest (45.71%), followed by agriculture (34.29%), day labourer (11.43%), other professions (5.71%) and service (2.86%). The corresponding percentages in non-TG were 42.86 percent, 37.14 percent, 8.57 percent, 2.86 percent and 8.57 percent respectively.



Table-3: Percentage distribution of the respondents according to their husbands' occupation

Husband's occupation	TG(%)	Non-TG(%)
Business	45.71	42.86
Agriculture	34.29	37.14
Day labourer	11.43	8.57
Service	2.86	8.57
Others	5.71	2.86
Total %	100	100
N	35	35

Source: Field survey

Data presented in the Table-3 reveals that no significant differences were found in terms of husbands' occupation between the two groups.

#### 4.5 Land ownership:

Table-4: Percentage distribution of the respondents by their land ownership

Land owned (in Bigha)	TG (%)	Non-TG (%)
Only Homestead	60	25.71
1-5	25.71	48.57
6-10	11.43	5.71
11-15	2.86	20
Mean	2.05	4.51

Source: Field survey

Data presented in the Table-4 shows that 60 percent woman in TG and about 25 percent in non-TG had only homestead. It was found that in TG about 25 percent families had one to five bighas of land while 11 percent six to ten and two percent had 11 to 15 bighas of land. The corresponding percentages in non-TG were about 25 percent, 48 percent, five percent and 20 percent respectively. On an average, families in TG were 2.05 bighas of land while families in non-TG had 4.51 bighas of land.

4.6 Income: The ranges of monthly income of the respondents' family were found Tk 450 to 8,000. On the basis of their income, the respondents from both the groups were classified into three categories given in Table-5.

Table-5: Percentage distribution of the respondents according to their income

Income level	TG (%)	Non-TG (%)
Below Tk 1,000	22.86	20
Tk 1,000-Tk 4,000	71.43	65.71
Tk 5,000-Tk 8,000	5.71	14.29
Total percentage	100.0	100.0
N	35	35

Source: Field survey

Data shows that monthly income of about 23 percent respondents from TG and 20 percent from non-TG was below Tk 1,000. The monthly income of the 71.43 percent respondents from TG ranged between Tk 1,000 to 4,000 while 65.71 percent earned between the amount in non-TG, 5.71 percent respondents from TG earned ranges between Tk. 5,000 to 8,000 while 14.29 percent respondents from non-TG earned the amount. Data proved that no significant difference in monthly income between the TG and non-TG was found.

4.7 Access to mass media: Researches proved that the mass media plays vital roles in changing knowledge, attitudes and practice. So, it is important to compare mass media accessibility between the two groups. Table-6 shows the accessibility of the respondents to mass media.

Table-6: Percentage distribution of the respondents by their mass media accessibility

Access to mass media	TG		Non-TG	
	N	%	N	%
Radio set	13	37.14	12	34.29
Television set	3	8.57	5	14.29
Newspaper subscription	0	0	0	0
Total	16	45.71	17	48.58
N	35	100	35	100

Source: Field survey

Table-8: Communication approaches and methods used by the NGOs in the village for health promotion

Approaches	Communication Methods as per Mercado (1992)	Used by the NGOs	Used by the NGOs in the village
1. Individual approach	Home visit, Office visit, Chance conversation, Telephone call and Personal letter	<u>BRAC</u> : Home visit, Office visit, Chance conversation <u>PROSHIKA</u> : Home visit, Office visit, Chance conversation <u>ACD</u> : Home visit, Office visit, Chance conversation	<u>BRAC</u> : Home visit <u>PROSHIKA</u> : Home visit <u>ACD</u> : Home visit
2. Group approach	Lecture, discussion, Lecture-discussion, Small group meeting, workshop, Study tour, Role playing, Method demonstration, Result demonstration.	<u>BRAC</u> : Discussion, Orientation, Rally, Health forum, Small group meeting, Seminar and Workshop. <u>PROSHIKA</u> : Discussion, Small group meeting, Seminar, Workshop. <u>ACD</u> : Discussion, Small group meeting, Seminar, Workshop.	<u>BRAC</u> : Small group meeting, Training. <u>PROSHIKA</u> : Small group meeting, Training. <u>ACD</u> : Small group meeting, Training.
3. Mass media approach	Newspaper, Magazine, Radio, TV, Film, Bill board, Books	<u>BRAC</u> : Radio, TV, Books and magazine, <u>PROSHIKA</u> : TV, Books <u>ACD</u> : Books	<u>BRAC</u> : not used <u>PROSHIKA</u> : not used <u>ACD</u> : not used
4. Folk media approach	Traditional drama, Debates, Poems, Riddles, Folk dances, Folk songs	<u>BRAC</u> : Folk tales <u>PROSHIKA</u> : Folk songs, Folk tales <u>ACD</u> : Traditional drama	<u>BRAC</u> : not used <u>PROSHIKA</u> : not used <u>ACD</u> : not used

Source: Field and head office level officials of the three NGOs

Table-8 reveals that only a small number of communication methods were being used by the NGOs ---BRAC, PROSHIKA and ACD --in the village. For applying the individual approach, doctors, health assistance and field staff had contacted their health-seeking people at homes (home visit). Weekly and monthly group meetings were also arranged for communicating health messages.

NGOs were reluctant to use all the communication approaches and methods in each programme area as part of health their communication activities. So, they used only limited number of methods and approaches in the village.

5.2 Communication materials for health promotion: Communication materials are teaching aids that are used by trainers in improving the effectiveness of their communication efforts (Mercado, 1992). Communication materials are the vital force in changing peoples' behaviour.

Table-9: Communication materials used by the NGOs in the village for health promotion

Communication Materials as per Mercado, 1992)	Used by the NGOs	Used by the NGOs in the village
1. Print materials are- Charts - Black boards flash card - Ludu Maps - Flip chart Graphs - Models Posters - Objects Bulletin boards -Diagrams Leaflet	<u>BRAC</u> : Flash card, Posters Leaflet, Flip chart, Module, Brochure and Book. <u>PROSHIKA</u> : Flash card, Posters, Leaflet, Flip chart <u>ACD</u> : Flash card, Posters Leaflet, Ludu, Flip chart	<u>BRAC</u> : Posters and Flip chart  <u>PROSHIKA</u> : Posters,  <u>ACD</u> : Posters, Flash card, Ludu and Flip chart
Electronic materials are- Videos - Slides Cassette tapes - Film	<u>BRAC</u> : Videos and Slides <u>PROSHIKA</u> : Videos <u>ACD</u> : not used.	<u>BRAC</u> : not used. <u>PROSHIKA</u> : not used. <u>ACD</u> : not used.
Other materials are- Festoon Cap Banner	<u>BRAC</u> : Festoon, Cap, Banner and T-shirt <u>PROSHIKA</u> : Festoon, Cap, Banner <u>ACD</u> : Festoon, Cap Banner	<u>BRAC</u> : Festoon, Cap, Banner . <u>PROSHIKA</u> : Festoon, Banner <u>ACD</u> : Festoon, Cap, Banner

Source: Field and head office level officials of the three NGOs

Table-9 reveals that BRAC, PROSHIKA and ACD used various types of communication materials for promoting health. Among them, only posters, flash cards, flip charts, ludus, banners, festoons and caps were used by the NGOs as communication materials in the village for health awareness.

### 5.3 Hypothesis testing

Table-10: Difference in mean value of knowledge level between TG and non-TG on water-sanitation and cleanliness issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	4.60	0.85	68	2.77*	2.00	2.64
Non-TG	35	3.97	1.04				

\* P Significant at .01 level

Table-10 shows that at 1 percent significant level, the table value is 2.64 with a df of 68. Here the computed value of t is 2.77. This value is higher than the table value 2.64. Therefore, the difference in mean value of TG and non-TG is significant at 0.01 level. So, the knowledge level of TG is higher than the knowledge level of non-TG on water-sanitation and cleanliness issue (H1). We may conclude that there was a significant effect of NGO communication in increasing knowledge of the target group towards water-sanitation and cleanliness issue.

Table-11: Difference in mean value of attitude level between TG and non-TG on water-sanitation and cleanliness issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	25.89	1.89	68	2.86*	2.00	2.64
Non-TG	35	24.43	2.34				

\*P Significant at 0.01 level

Table-11 shows that the computed value of t is 2.86. Here, computed value of is higher than that of the table value (2.84) with a df of 68. The difference in mean value of TG and non-TG is significant at 0.01 level. Therefore, the attitude level of TG is higher than the attitude level of non-TG on water-sanitation and cleanliness issue (H2). So, we may conclude that there was an effect of NGO communication on their target group to make favourable attitudes towards water-sanitation and cleanliness issue.

Table-12: Difference in mean value of practice level between TG and non-TG on water-sanitation and cleanliness issue

Groups	N	Mean	SD	Df	T value	t (05%)	t (01%)
TG	35	3.34	1.03	68	0.22*	2.00	2.64
Non-TG	35	3.29	1.18				

\* P Not significant

A t to be significant at 0.05 level with a df of 68 requires a table value of 2.00. Here the computed value of t is 0.22. This value is less than the tabulated value. That means, there is no significant difference in mean scores of the TG and non-TG at the attitude level. Therefore, the hypothesis (H3) is rejected. So, we may conclude that NGO communication had no effect on their target people to change practices towards water-sanitation and cleanliness issue.

Table-13: Difference in mean value of knowledge level between TG and non-TG on food and nutrition issue

Groups	N	Mean	SD	Df	T value	t (05%)	t (01%)
TG	35	4.80	1.26	68	2.33*	2.00	2.64
Non-TG	35	4.11	1.21				

\*P Significant at .05 level

Table-13 shows that the computed value of t is 2.33. This value is higher than the table value 2.00 to be significant at 0.05 level with a df of 68. Therefore, the difference here, is significant at 0.05 level. So, the knowledge level of TG is higher than the knowledge level of non-TG on food and nutrition issue (H1). We may conclude that there was an effect of NGO communication in increasing knowledge on food and nutrition issue.

Table-14: Difference in mean values of attitude level between TG and non-TG on food and nutrition issue

Groups	N	Mean	SD	df	T value	t (05%)	t (01%)
TG	35	25.06	3.09	68	2.23*	2.00	2.64
Non-TG	35	23.54	2.58				

\*P significant at .05 level.

Table-14 shows that the t to be significant at .05 level with a df of 68 its value should be 2.00. Here the computed value of t is 2.33. This computed value of t (2.33) is bigger than the table value (2.00) of t. Therefore, the difference in mean value of TG and non-TG is significant at 0.05 level. So, the attitude level of TG is higher than the attitude level of non-TG on food and nutrition issue (H2). We may conclude that there was a positive effect of NGO communication on their target people to make favourable attitudes towards food and nutrition issue.

Table-15: Difference in mean value of practice level between TG and non-TG on food and nutrition issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
G	35	4.37	1.17	68	1.11*	2.00	2.64
Non-TG	35	4.09	0.98				

\* P not significant

Table-15 shows that a t to be significant at .05 level with a df of 68 its value should be 2.00. Here the computed value of t is 1.11, which is smaller than the table value 2.00. Therefore, difference in mean scores of TG and non-TG is not significant at the practice level. So, the hypothesis (H3) is rejected. We may conclude that NGO communication had no effect on their target people to change behaviour towards food and nutrition issue.

Table-16: Difference in mean value of knowledge level between TG and non-TG on women health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	5.26	0.85	68	2.70*	2.00	2.64
Non-TG	35	4.54	1.31				

\*P significant at 0.01 level

Table-16 shows that a t to be significant at .05 level with a df of 68 its value should be 2.00. Here the computed value of t is 2.70, which is higher than the table value (2.00). Therefore, the difference in mean value of TG and non-TG is significant at 0.01 level. So, the knowledge level of TG is higher than the knowledge level of non-TG on women health issue (H1). We may conclude that there was a significant effect of NGO communication in increasing knowledge on women health issue.

Table-17: Difference in mean values of attitude level between TG and non-TG on women health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	24.23	2.61	68	1.06*	2.00	2.64
Non-TG	35	23.37	3.99				

\* P not significant

Table-17 shows that at 5 percent significant level, the tabulated value of t is 2.00 with a df of 68. Here the computed value of t is 1.06. This value is less than the tabulated value of t. Therefore, the difference in mean scores of TG and non-TG is not significant at the attitude level. So, the hypothesis (H2) is rejected. We may conclude that there was no effect of NGO communication on their target people to make favourable attitude towards women health issue.

Table-18: Difference in mean value of practice level between TG and non-TG on women health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	4.29	1.49	68	1.42*	2.00	2.64
Non-TG	35	3.80	1.37				

\*P not significant

Table-18 shows that at 5 percent significant level the table value is 2.00 with a df of 68. Here the computed value of t is 1.42, which is smaller than the table value 2.00. Therefore, the difference in mean score between the TG and non-TG is not significant. So, the hypothesis (H3) is rejected. We may conclude that NGO communication had no effect in increasing practices towards women health issue.

Table-19: Difference in mean value of knowledge level between TG and non-TG on child health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	4.69	0.93	68	1.09	2.00	2.64
Non-TG	35	4.40	1.24				

\*Not significant



Table-19 demonstrates that at 5 percent significant level, the tabulated value of t is 2.00 with a df of 68. Here the computed value of t is 1.09. This value is less than the tabulated value of t. Therefore, the difference in mean value between TG and non-TG is not significant. So, the hypothesis (H1) is rejected. We may conclude that there was no positive effect of NGO communication on knowledge level towards child health issue.

Table-20: Difference in mean value of attitude level between TG and non-TG on child health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	24.97	2.84	68	1.91*	2.00	2.64
Non-TG	35	23.60	3.16				

\*Not significant

Table-20 shows that at 5 percent significant level, the tabulated value of t is 2.00 with a df of 68. Here the computed value of t is 1.91, which is smaller than the tabulated value 2.00. Therefore, the difference in mean score of TG and non-TG is not significant at the attitude level. So, the hypothesis (H2) is rejected. We may conclude that the NGO communication could not make favourable attitudes towards child health.

Table-21: Difference in mean value of practice level between TG and non-TG on child health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	5.34	0.68	68	0.80	2.00	2.64
Non-TG	35	5.17	1.07				

\*Not significant

Table-21 shows that at 5 percent significant level, the tabulated value of t is 2.00 with a df of 68. Here the computed value of t is 0.80, which is smaller than the tabulated value 2.00. Therefore, the difference in mean score of TG and non-TG is not significant at the attitude level. So, the hypothesis (H3) is rejected. We may conclude that there was no effect of NGO communication on practice level towards child health issue.

Table-22: Difference in mean value of knowledge level between TG and non-TG on epidemic health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	3.89	1.16	68	2.07*	2.00	2.64
Non-TG	35	3.31	1.16				

\*P significant at 0.05 level

Table-22 shows that at 5 percent significant level the tabulated value is 2.00 with a df of 68. Here the computed value of t is 2.07, which is higher than the tabulated value 2.00. Therefore, the difference in mean score of TG and non-TG is significant at 0.05 level. So the knowledge level of TG is higher than that of the non-TG on epidemic health issue (H1). We may conclude that NGO communication had some effects on knowledge level of their target people towards epidemic health issue.

Table-23: Difference in mean value of attitude level between TG and non-TG on epidemic health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	23.83	3.54	68	1.99*	2.00	2.64
Non-TG	35	22.17	3.41				

\*Not significant

Table-23 reveals that at 5 percent significant level, the tabulated value of t is 2.00 with a df of 68. Here the computed value of t is 1.99, which is higher than the tabulated value 2.00. Therefore, the difference in mean value of both groups is not significant at the attitude level. So, the hypothesis (H2) is rejected. We may conclude that NGO communication could not make favorable attitude on epidemic health issue.

Table-24: Difference in mean value of practice level between TG and non-TG on epidemic health issue

Groups	N	Mean	SD	df	t value	t (05%)	t (01%)
TG	35	5.31	0.76	68	1.42*	2.00	2.64
Non-TG	35	5.03	0.92				

\*Not significant

Table-24 shows that at 5 percent level of significance with a df of 68 the tabulated value of t is 2.00. Here the computed value of t is 1.42, which is less than the tabulated value of t. Therefore, the difference in mean value of both groups is not significant in the practice level. So, the hypothesis (H3) is rejected. We may conclude that there was no effect of NGO communication to change behaviour of their target people towards epidemic health issue.

### 6.0 Major Findings

Table-25: t-test results on the effects of NGO communication at a glance

Health issues	Knowledge level	Attitude level	Practice level
Water, sanitation and cleanliness	significant	significant	not significant
Food and nutrition	significant	significant	not significant
Women health	significant	not significant	not significant
Child health	not significant	not significant	not significant
Epidemic health	significant	not significant	not significant

Source: t-test results after measuring NGOs' target people's knowledge, attitude and practice towards the five health issues in the study village.

The t-test results shows that NGO's health communication in the study village had influenced the people's health related knowledge towards water-sanitation and cleanliness, food and nutrition, women health and epidemic health issues but it failed to increase knowledge towards child health issue. The NGO communication had increased attitude level of its target people towards water-sanitation and cleanliness as well as food and nutrition issues but it failed to change attitude towards women, child and epidemic health issues. Many causes can be blamed for it. The most vital one was the content of the many women and child health related messages were addressed to the taboos. So, in some cases, NGO communication created impediments instead of bringing positive change. Because, Rogers (1973) mentioned that "taboo communication that may be functional for society is often very dysfunctional for certain individuals in that society." The t-test results show that the NGO's health communication totally failed to change the target people's behaviour (practice) towards all the six health issues taken under the study.

Secondly, if the messages are not adequately comprehensible it cannot change people's health attitude. Eagly & Chaiken (1975) said, "... the message must be understandable. If people do not comprehend a message, then little attitude change can occur." The NGO workers mainly disseminated health messages among the target women at meetings. But they could not help adequately clarify the meaning of these messages. It was observed that some of the NGO workers who supervised such programmes in the village lack of health education and training. These limitations adversely affected the health programmes.

Thirdly, the NGO communication failed to change the target people's practice level towards some health issues also due lack of education and literacy as well as for existing traditional ethos. Besides, the NGOs had mainly concentrated on credit activities and giving less emphasis on health communication activities. The health messages were not well articulated and in some cases inadequate and had lack motivational inputs.

Fourthly, due to lack of economic resources many of the target people could not afford sanitary latrines, nutritious food and safe drinking water from tube-wells that hindered to bring change in behaviour of the target people.

Fifthly, women's inability to influence the decision of purchasing everyday essentials was another reason that affected the practice level.

Sixthly, traditional communication in the village remained strong enough to negate many of the ideas of the NGOs. So, the NGO communication failed to motivate the people to come out from the older beliefs and practices.

Finally, the communication approaches and methods used by the NGOs in the village were found feeble and inadequate. Lack of planning and maintaining continuity in delivering health messages and other services also were quite visible.

## **7.0 Recommendations**

- The NGOs should bring the whole of the village under their health communication coverage. Villages in Bangladesh exist like an integrated cultural unit and if a simultaneous change of knowledge and attitude does not occur to every segment of the people, intended behaviour can not be achieved.

- The NGOs should establish a well-developed communication unit with trained and skilled communication staff to formulate effective communication policy, plan and strategy for health promotion.
- The NGOs should disseminate health messages in more acceptable and efficient way as well as respecting the people's existing cultural norms and ethos as well as indigenous health care practices. Health messages should be developed following a participatory process emphasising local dialects and cultural discourses. To make the health messages more appealing towards behavioural change, more motivational inputs should be instigated into the messages.
- NGOs' field-level staff who are assigned for communicating messages with the target people should be imparted training in health communication to ensure proper dissemination of the messages.
- To ensure positive health practices, the people's economic solvency should be ensured through more income-generating activities or they should be brought under any health insurance scheme.
- Women are the most marginalised section and they have less access to the health related decision-making process. NGOs should bring every decision maker of a family under their health communication activities.

## **8.0 Conclusion**

Communication is the vital component of the massive efforts the NGOs have taken to bring a positive change in health sector of Bangladesh. This study proved that only communication can not produce desired results. Enhancement of the target people's economic capability must be ensured along with implementing effective health communication strategy to bring change in their knowledge, attitude and practice levels. A failure in this case will lead to generate a KAP gap. To avoid it and to really contribute to the people's health promotion, NGOs should think development and health holistically while formulating health communication strategy.

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