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ACCEPTABILITY OF WATER-SEALED LATRINES IN MIRZAPUR: A RURAL AREA OF BANGLADESH

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Introduction

The third world populations have been growing steadily, so the numbers of people without sanitation facilities have also grown. According to WHO figures, in 1975, 1350 million third world people had no adequate sanitation. In 1980 the figure was 1730 million. It is within this context, that the UN General Assembly declared 1981-'90 as the International Drinking Water Supply and Sanitation Decade. WHO was given the responsibility to coordinate the activities during this decade. At a WHO regional meeting in New Delhi held in November 1979 the Bangladesh government notified WHO that its national target for the decade would be 12% sanitation coverage for the rural population (Agarwal *et al.* 1981: 6, 10-11).

Human excreta can be disposed of in a safe manner through the use of relatively low cost water-sealed latrines. In this respect, the important factor is to promote the acceptance and use of these latrines by household members in a rural community. This study investigates the ways of promotion of latrine acceptance at the household level in a rural community with emphasis on the level of response according to certain selected socio-economic characteristics of the household members. It also deals with the reasons behind accepting the latrine, method of delivery of motivational inputs, and type of persons to whom motivation should be directed for speedy favourable response.

There have been few studies of planned behavioural changes in excreta disposal practice through the introduction of sanitary latrines in rural households. One study was done by DPHE-UNICEF-WHO (1983) in a village community of Bangladesh. Other studies, by Curtis *et al.* (1978), Feachem *et al.* (1980, 1983), Elmendorf (1980), and Elmendorf and Backles (1980) have provided valuable information on the behavioural and institutional aspects of sanitation programmes in various parts of the world.

The ICDDR,B (International Centre for Diarrhoeal Disease Research, Bangladesh) has been making efforts to introduce double-pit water-sealed latrines since the beginning of January, 1975. It was decided to offer such latrines at a subsidized rate of Taka 300, and Taka 200 per unit excluding the cost of superstructure. The option of payment of Taka 200 instead of Taka 300 was applicable in the event of willingness to put some labour. In this report an attempt would be made to identify the level of responses towards the acceptance of the water-sealed latrines by the study population consisting of 798 mainly agricultural households. These households are located within two villages covering 16 *paras* in Mirzapur Upazila of Bangladesh situated 57 kilometers from Dhaka.

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Method

In January and February of 1985 all the study households were approached with an offer for the installation and use of latrines. While introducing the latrine it was stated that it was a low-cost latrine and had the capacity to block the smells and flies and could offer privacy through the erection of cheap superstructure. During the offer of the water-sealed latrine an open-ended discussion was undertaken regarding the utility of it with the household members. The discussion was mostly participated by heads of the households, their wives, other influential members of the household and neighbourhood. The discussion took place on multiple occasions participated by one or more such members according to the availability. During the discussion the motivators noted spontaneous statements reflecting opinions towards the acceptance of the latrines. In making such notes care was taken to record information that were likely to provide insight into personal motivations, feelings, needs, and the interrelation of physical, psychological, social and emotional aspects of human behaviour centering the use of a water-sealed latrine.

There were various economic, socio-cultural, psychological and geographical considerations towards the acceptance of water-sealed latrines. Intensive motivational efforts were made at the household level in 80% of the cases for the acceptance of these latrines at a subsidized rate on payment of Taka 300 per latrine. Motivations were provided by several levels of field workers including supervisory personnel. The motivational work was targeted to both the responsible male and female members. On the basis of acceptance of the latrine following motivation by the Community Health Worker (CHW), efforts were made by female and male supervisory workers. A team approach was employed by male workers during evening hours. The team approach included inviting the leading acceptor(s) of the neighbourhood (*hati*) to join the discussion session. To facilitate the motivational work, efforts were made to install at least one latrine in every *para* and large *hati*. These demonstration latrines were installed to create awareness and acceptance amongst the remaining households.

Results

Baseline data on demographic and socio-economic characteristics were collected at the household level before the latrine promotional activities started. Baseline data on the distribution of households, according to type of latrine, revealed that 1.8% households had water-sealed latrines, and 45.4% 'had *kaca* latrine' (having seating arrangement on tree branch or bamboo or wooden plank without any sanitary disposal of faeces).

Table I shows the types of water sealed latrine acceptors following motivational work within a period of two months. This table shows that within the period under reference 6.14% of households have accepted latrines with full payment. The percentage of acceptance of latrines with part payment is 3.88%. These households are expected to make full payments within a period of two weeks. Commitment for acceptance of latrines were made by 13.6% households with target dates of payments within two months. Out of 49 cases of full payment only 5 households (i.e. 10.2%) have opted for payment of Taka 200.

Table 2 shows the acceptance of water-sealed latrines in a two-month period according to the highest level of education in the households. Overall, the acceptance was found to be significantly higher for literate groups compared

with the illiterate groups. When compared with primary level of education the difference in acceptance was 8.27%. Similarly, the difference with secondary level and over was 15.97%. Whereas the difference between the primary and secondary and over groups was only 7.7%.

Table 3 shows the acceptance of water-sealed latrines in a two-month period according to the occupation of the heads of households. This table shows that about 68% of household heads had occupations such as cultivator, small businessman, and day labourer. The overall acceptance of water-sealed latrines was significantly higher in the business and cultivator groups compared with the day labourers. When compared with the business group the difference in acceptance was 15.65%. Similarly the difference with the cultivation group was 8.02%. Such difference was also found between skilled labourer and day labourer groups. It was observed that among the acceptors cultivators made payments on the day following a market day, when they sold agricultural commodities. The business people could make payments more readily. Some of the prospective acceptors in the business and cultivator groups were deferring payments because they had no ready cash or had already invested all available money.

Discussion

The primary reason for acceptance of water-sealed latrine was commonly stated to be the rise in 'good name' (*sunam*) of the household. The other commonly held views discovered through informal discussion included the following :

1. After the installation of water-sealed latrines people will say that in so-and-so's house there is a sanitary latrine.
2. Following the installation and use of water-sealed latrine the space in the surrounding will remain unpolluted or beautiful (*sundar*).
3. Since women observe *parda* water-sealed latrines are particularly useful to them.
4. Following the installation of water-sealed latrine one need not go out of the homestead for the purpose of defaecation. This is particularly convenient for the women and children of the household whose movements are mainly restricted within the homestead compound.
5. Following the death of their father, children will 'use up' (*bhaingga phelbe*) the cash money left by him. Therefore, it is desirable to spend the money in one's life time in a judicious way such as investing in a water-sealed latrine. With such investments, the benefits can be reaped by the investor himself and also by his descendants following his death.

Moreover, some people held the following views regarding water-sealed latrines:

1. As a prestige symbol the water-sealed latrines should first be installed in the 'outer homestead' (*bahir bari*) so that the visiting male friends and guests can use it without disturbing the *parda* observing women who stay and work in the 'inner homestead' (*bhitar bari*).

1. Following its installation and use, the household environment will be free from the bad smell of faeces.
3. Following its installation the spread of disease through flies will no longer occur.

To summarize the primary factors leading to willingness for the installation of a water-sealed latrine are mainly social and psychological and not health related. A householder's willingness and motivation to procure a latrine are manifest within largely social and psychological perceptions.

In targeting the male earning members towards acceptance of the latrines the team approach was found to be most effective. Multiple contact by several sources (persons) rather than single contact was found to be more effective. Women members of the household had a minor role in the decision making towards the acceptance of water-sealed latrine. However, women played a useful role in discussing the availability of water-sealed latrine within the household and *bari* circle. While approaching a prospective latrine acceptor his or her moods must be taken into consideration. If the target person is not in a happy mood it may be futile to ask for money for the installation of a latrine. For example, if someone has been recently pick-pocketed or lost some cattle-heads or lost a near and dear one then it is better to approach him at a more suitable date in the near future. Even if someone had a quarrel or exhaustive work day then the motivational work should not be timed on such a day.

The overall response in accepting a latrine by sharing expenses was not fast. The emphasis on owning a sanitary latrine at a nominal cost having the potentiality of gain in socio-psychological aspects particularly in relation to the enhancement of household prestige was found to be effective. However, focus on the health aspects associated with owning a latrine was only an additional consideration in its acceptance. Most of the households which accepted the latrine were not interested in its immediate use. The inclination towards deferred use was reflected in the slow progress of making a superstructure for the latrines. From the experience of motivational activities reported here it can be concluded that the acceptance of a latrine is a slow process requiring a lot of persuasion in the desired direction. To bring forth its utilization is a much tougher task requiring a continuing motivational effort over a longer period. An in depth anthropological study at the household level might provide clues to the acceptance and utilization of the water-sealed latrines.

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Table 1. Percentage of acceptors by methods of payment following motivation in 793 households in January-February, 1985

Types of acceptance by method of payment	No. of households	%
Full payment made	49	6.14
Advance payment of Taka 100.00 - 200.00	21	2.63
Advance payment of Taka 25.00 - 100.00	10	1.25
Commitment given for payment with target dates within two months	109	13.6
Total	189	23.68

Table 2. Acceptors of water-sealed latrine during January-February, 1985 by highest education in the households

Level of education	Total No. of households	Category of Acceptance				Total Acceptors	
		Full payment		Part payment		Number	%
		Number	%	Number	%		
No education ..	326	04	1.23	07	2.14	11	3.37
Primary ..	292	21	7.19	13	4.45	34	11.64
Secondary and over ..	181	24	13.26	11	6.08	35	19.34
Total ..	799	49	6.13	31	3.88	80	10.01

Table 3. Acceptors of water-sealed latrine during January-February, 1985 by occupation of head of households

Occupation	Total no. of households	Category of Acceptance				Total acceptors	
		Full payment		Part payment		Number	%
		Number	%	Number	%		
Cultivation ..	283	21	7.42	09	3.18	30	10.60
Small business ..	181	19	10.50	14	7.73	33	18.23
Day labourer ..	155	01	0.65	03	1.94	04	2.58
Skilled labourer ..	79	05	6.33	03	3.80	08	10.13
Service ..	46	02	4.35	02	4.35	04	8.70
Others ..	55	01	1.82	01	1.82
Total ..	799	49	..	31	..	80	10.01

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