Date February, 24, 1993

4/4/93

REVIEW BOARD ON THE USE OF HUMAN SUBJECTS, ICDDR,B.

ipal Investigator Md. Shafiqul Islam

Trainee Investigator (if any)

cation No. 93-016

Supporting Agency (if Non-ICDDR,B)

of Study Perceptions about rhoea and variation in its home gement

Project status:
(✓) New Study
( ) Continuation with change
( ) No change (do not fill out rest of form)

e the appropriate answer to each of the following (If Not Applicable write NA).

ource of Population:
a) Ill subjects — **Yes** No
b) Non-ill subjects — **Yes** No
c) Minors or persons under guardianship — **Yes** No

oes the study involve:
a) Physical risks to the subjects — Yes **No**
b) Social Risks — Yes No
c) Psychological risks to subjects — Yes **No**
d) Discomfort to subjects — Yes **No**
e) Invasion of privacy — Yes **No**
f) Disclosure of information damaging to subject or others — Yes **No**

es the study involve:
) Use of records, (hospital, medical, death, birth or other) — **Yes** No
) Use of fetal tissue or abortus — Yes **No**
) Use of organs or body fluids — Yes **No**

e subjects clearly informed about:
) Nature and purposes of study — **Yes** No
) Procedures to be followed including alternatives used — Yes **No**
) Physical risks — Yes **No**
) Sensitive questions — Yes **No**
) Benefits to be derived — **Yes** No
) Right to refuse to participate or to withdraw from study — **Yes** No
Confidential handling of data — **Yes** No
Compensation &/or treatment where there are risks or privacy is involved in any particular procedure — Yes **No**

5. Will signed consent form be required:
(a) From subjects — **Yes** No
(b) From parent or guardian (if subjects are minors) — **Yes** No

6. Will precautions be taken to protect anonymity of subjects — **Yes** No

7. Check documents being submitted herewith to Board:

___ Umbrella proposal - Initially submit an overview (all other requirements will be submitted with individual studies).
✓ Protocol (Required)
✓ Abstract Summary (Required)
✓ Statement given or read to subjects on nature of study, risks, types of questions to be asked, and right to refuse to participate or withdraw (Required)
✓ Informed consent form for subjects
✓ Informed consent form for parent or guardian
___ Procedure for maintaining confidentiality
✓ Questionnaire or interview schedule *

* If the final instrument is not completed prior to review, the following information should be included in the abstract summary:
1. A description of the areas to be covered in the questionnaire or interview which could be considered either sensitive or which would constitute an invasion of privacy.
2. Examples of the type of specific questions to be asked in the sensitive areas.
3. An indication as to when the questionnaire will be presented to the Board for review.

e to obtain approval of the Review Board on the Use of Human Subjects for any changes ng the rights and welfare of subjects before making such change.

Md. Islam

rincipal Investigator

Trainee

ENTERED 21 JUN 1993

REF
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9. AIMS OF PROJECT:

a) General aims

i) To study the changing aspects of perceptions of diarrhoea among key informants - young mothers, mother-in-laws, heads of the households and village practitioners through assessment of their present and past practices on home management of diarrhoea;

ii) To investigate the different methods of diarrhoea management by young mothers, mother-in-laws, heads of the households and village practitioners and

iii) To identify the gaps in their perceptions and practices with the present scientific knowledge of diarrhoea management with a view to developing suitable strategies to bridge such gaps.

b) Specific aims:

i) To assess knowledge, attitude and beliefs of young mothers, mother-in-laws, heads of the households and village practitioners related to diarrhoea;

ii) To compare the responses of young mothers, mother-in-laws, heads of the households and village practitioners with the scientific knowledge;

iii) To investigate the classification of diarrhoea among these categories;

iv) To inquire about the severity and causes of diarrhoea among them;

v) To investigate the knowledge of dehydration and rehydration during diarrhoeal episodes and their management;

vi) To study knowledge, attitude and practices related to oral rehydration therapy (ORT) and

vii) To determine the traditional and modern methods of treatment of diarrhoea including feeding and drinking practices during and following diarrhoeal illnesses.

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c) Significance

Indigenous concepts of diarrhoeal disease and its treatment are most often unnoticed and ignored. In our ongoing efforts to combat mortality caused from childhood diarrhoea, the utmost attention should be focussed on what is really being done in the home and why. An understanding of the health action initiated in response to diarrhoea in children is essential for promoting correct diarrhoea management. Oral rehydration therapy for the treatment of diarrhoea is a recent innovation. How to most effectively deliver the therapy is now a subject of intensive study. Popular health concerns and expectations must be addressed if an ORT programme is to prove effective. Before starting an ORT programme, the perceptions people have of the types, causes, and treatment of diarrhoea and other related issues should be investigated. Such an investigation helps to understand the cultural determinants of the success of an ORT programme (Kendall et al, 1984). The knowledge of the perceived causes of diarrhoea allows a fairly accurate prediction of the type of health care needed (de Zoysa et al, 1984:Fosu, 1981).
This research will help in identifying and developing an appropriate and effective intervention strategy for bringing about a significant rise in effective use of ORT in the rural community and thereby reduce diarrhoeal mortality and contribute to better child survival.

10. ETHICAL IMPLICATIONS:

This investigation will be conducted through focus group discussions with key informants, namely young mothers, mother-in-laws, heads of households and village practitioners about their perceptions of diarrhoea and its home management for children less than five years old in selected villages of Matlab Study area. Focus group discussions will be reinforced by conducting in-depth interviews with each of these categories of key informants. To have a better understanding of actual management of diarrhoea, case episodes will be followed up during weekly surveillance. None of these procedures will include sensitive questions nor will there be any question considered to be an invasion of privacy. Strict confidentiality will be maintained of all information obtained from individual interviewee and signed informed consent will be obtained from the relevant respondents. Diarrhoea patients will be treated at home with ORS: serious diarrhoea patients will be referred to ICDDR,B treatment centre at Matlab as quickly as possible.

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11. BACKGROUND, RESEARCH PLAN AND BIBLIOGRAPHY

Background:

Diarrhoeal illnesses constitute the greatest cause of mortality and a major cause of morbidity in the developing world (Snyder, Merson, 1982: Walsh, Warren, 1979). In rural Bangladesh, diarrhoea and its after-effects are the most common causes of young childhood morbidity and mortality (Chen et al., 1980: Black et al, 1981: Black et al, 1982). Diarrhoea is typically defined as 3 or more liquid or watery stools per day and is classified into different categories (Bentley, 1988). An important question is how diarrhoea is perceived by the community, particularly by the young mothers, the grand-mothers, known to be the repository of tradition and the head of households, often the decision makers and the traditional practitioners. The World Health Organization has observed that there is an urgent need to understand mother's present attitudes, perceptions and practices regarding diarrhoea (WHO, 1982: WHO, 1985.) In Zimbabwe men referred questions about diarrhoea to women (De Zoysa, et. al. 1984). In Bangladesh, decisions regarding therapy for childhood diarrhoea are usually made by the mothers - young mothers are advised by their generally more conservative mother-in-laws (Green, 1985). Even though women are directly involved in the case of children, when they need medicine, men decide what to buy and 'doctors' are the opinion leaders concerning health care in Bangladesh (Green, 1986). Two groups should be targets for health education: mothers and traditional healers (Green, 1985). The former provides the first-line responses to diarrhoea, most often recognize illness and make decisions about treatment and help seeking; the latter are the primary opinion leaders in all matters of health, including diarrhoeal diseases. One investigator indicated that health education programmes through mass media, like television, should target 13-18 year - old women, especially domestic servants (Escobar, et. al. 1983). Much importance is now given to training of mothers to administer ORT before taking children for help outside the home, either to a local healer or elsewhere (Green, 1986). Researchers also advocate association of traditional healers into the health care network and train them to manage diarrhoea with ORT (Nations et al., 1984). Health education efforts cannot have much impact if they are actively or passively opposed by traditional healers (Green, 1985).

In Lima, Peru diarrhoea is not seen as an infectious disease (Escobar et al., 1983). The PRITECH (1990) Morocco research

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indicated that mothers held contradictory beliefs regarding diarrhoeal events. While most mothers believed that diarrhoea can kill a child, most felt that diarrhoea lasting a week does not seriously affect a child's health. Vishanathan and Rohde (1990) noted that mothers in rural India bore a causal acceptance of 'normal' diarrhoea which they had usually been able to handle at home. At times, with little or no effort, the problem corrected itself. Results of surveys (Ngubane, 1976: Currey, 1985) showed that respondents describing the types and duration of diarrhoea and the treatment sought indicated that generally diarrhoea is not 'noticed' or treated as soon as the first loose motion starts. The thought of treating diarrhoea arises when increased volume of watery diarrhoea persists over a day or so and only then is it treated. In Pakistan, mothers regard certain diarrhoea as natural - a more or less expected part of growing up (Mull and Mull, 1988). They observed that these diarrhoeas should be simply tolerated or managed by avoidance of the underlying causes rather than treated with therapy such as ORT. Many mothers did not identify diarrhoea as an 'illness' unless it was accompanied by other symptoms such as fever or severe vomiting.

Studies of diarrhoea throughout the world have established that many societies have their own classification systems for diarrhoea, each with its own label, symptoms, causes and treatments (Green, 1986; Bentley, 1988; Coreil and Genece, 1988: Chowdhury et al, 1988). A common finding across many of the societies is that diarrhoeal diseases are not necessarily perceived as a distinct clinical entity with a single set of causes (De Zoysa et al., 1984: Kendall et al., 1984: Green, 1985). Weiss (1988) suggested several explanatory cultural models for diarrhoeal illness acknowledging the following causes:

- i) foods that are fatty, not cooled adequately, and heavy etc;
- ii) normal or poor quality breastmilk;
- iii) natural consequences of growth milestones, of a child especially teething, crawling and walking;
- iv) infection which may be associated with hygiene and sanitation;
- v) imbalance of heat and cold that may be associated with foods and exposure to seasonal changes;
- vi) physical factors such as a fall or poor caretaking;

vii) supernatural causes including possession, sorcery or evil eye;

viii) pollution from the exposure to or inauspicious contact with ritually impure persons or things; and

ix) moral misbehavior including the deeds of the sick person or a sick child's parents or pregnancy while breastfeeding.

Oral therapy for the treatment of diarrhoea is a recent innovation. Rehydration therapy has now become the mainstay of treatment for life threatening diarrhoeal diseases, both epidemic cholera and childhood diarrhoeas (Cash et al., 1970; Mahalanabis et al., 1973; Azurin et al., 1981; Eusof et al., 1981; Snyder et al., 1982). Although oral dehydration therapy saves lives, its widespread use is determined by complex cultural and social factors which are little influenced by scientific advances (Rohde, 1980). Popular health concerns and expectations must be addressed if an ORS programme is to prove effective. Proper preparation, as instructed by UNICEF, is essential for effective use of ORS. Just as essential is conveying a clear understanding of what ORS is for and the types of diarrhoea for which it is useful. This requires both the use of local terminology for folk illnesses associated with diarrhoea and for a conceptual translation of dehydration. Dehydration, its causes and deleterious effects must be described in ways and by images which the population can understand. Rehydration advice must both be specific and responsive to existing cultural concerns. Care must be taken to inform people what ORS is not. Often the concept of dehydration and rehydration is a little abstract and not understood in a community. If the concept of dehydration/ rehydration is better understood by the public and if attention is paid to lay health concerns, then ORS may be more culturally acceptable and meaningful (Nichtar, 1988). It is most appropriate to adhere to concepts already understood and accepted locally and use them to a programme's advantage. Programmes should build on what is already available rather than teach communities something which is totally alien. Efforts to popularize ORT must involve more than the dissemination of information regarding its purpose and the procedures relating to its use. To be effective, efforts to popularize ORT must be based on a clearer understanding of the interaction between knowledge, skills and beliefs which are embedded in ORT and those mothers possess from previous educational and social experience (Kendall et al., 1984). An understanding of dehydration is critical for sustained use of oral rehydration therapy at the community level. Mothers who understand the function of ORT in fluid replacement and realize that it is not a medicine to stop diarrhoea, are more likely to be long-term users (Bentley, 1988). Programmes to promote the correct use of ORT should be directed at the full range of family members (Levine, unpublished). Although mothers may hold primary responsibility for the health and well-being of their children, they are not always the primary caretakers and in many societies their authority over household decisions, medical or otherwise, are constrained. It is not uncommon to find important decisions put to senior household members - husbands, mothers-in-law and young women in developing countries or treated as a matter of collective discussion.

Sound diarrhoea management programmes include both the concept of fluid replacement and feeding (Molla et al., 1983: Black et al., 1983). There are frequent reports of parents withholding food and fluids including breastmilk (WHO/UNICEF, 1983; 1985: Escobar et al., 1983; Brieseman, 1984). Foods are avoided during and immediately after diarrhoea in many communities (Jelliffe et al., 1986: Vermury 1981: McKay, 1980). Food restriction during diarrhoea has been reported from India and Bangladesh (Gupta & Sasan, 1983: Srinivas & Afonso, 1983: Khan & Ahmed, 1986). The common practice is to decrease food intake during and after diarrhoea in Sudan (Ali, 1989). Oral rehydration therapy and appropriate feeding during and after diarrhoea are the major elements of the case management strategy promoted by the CDD programme of WHO (WHO, 1988). Although most episodes of diarrhoea in young children can be managed at home with the administration of extra fluids and continued feeding, an important aspect of appropriate household management involves early recognition and prompt referral of serious cases resulting in dehydration (Herman et al., 1991). Mothers and family members can often treat diarrhoea themselves with fluids and foods that they have at home. Health workers can help if they show mothers how to do this (WHO, 1987). In a South Indian study it was found that parents first noticed a child's illness seven times more often than did grandparents and mothers ten times more often than did fathers (Caldwell et al., 1983). Further, mothers suggested the possibility of treatment more often than did fathers, but made decisions about treatment considerably less than half as often as the fathers. Some other authors have observed that changes in the family decision-making norms already have profound health effects and these will probably accelerate (Rohde, Sadjimin, 1980: Mayer et al., 1983).

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RESEARCH PLAN :

**Study design and Methodology:**

This investigation will be based on (i) focus group discussions and (ii) in-depth interviews with key informants namely, young mothers, mother-in-laws, heads of households and traditional village practitioners and (iii) diarrhoea case episode follow-ups carried out through weekly surveillance. The study will be carried out in the comparison area of demographic surveillance system (DSS) of Matlab project. The key informants will be randomly selected from a population of 10,000 in a cluster of villages for which up-to-date household records of all births, deaths, migrations and marriages are available to be used as a sampling frame.

Focus group discussions or interviews will be carried out with key informants in separate sessions for each category. Focus group interview is a practical and efficient way for generating ideas and feelings about a topic by gathering together potential numbers of the target group for discussion. The goal of such an interview is to encourage as many ideas as possible and to stimulate interaction. Interaction among the respondents of a focus group is encouraged to stimulate discussion of various topics which may encourage participants to discuss behavior and attitudes that they may not consciously reveal in an individual interview (Folch-Lyon and Trost, 1981). Questions are open-ended and the interviewers must be able to ask follow-up questions that probe without leading the group towards predetermined answers. We will use focus group of key informants specially to discuss traditional diarrhoea beliefs and practices and to generate the vocabulary used by the rural people for objects and concepts to be included in the anticipated project's educational materials. The topics of focus group discussions will be related to the interview questionnaire in general (Annexure - A). Each focus group discussion will include 5-10 participants whose age, sex, education and, if possible, marital status will be matched. Twelve to 15 focus group sessions will be arranged with the key informants who will be randomly selected. Respondents of focus group discussions will be brought together at a venue where they are likely to be at ease with their surroundings. One of the investigators as a moderator will initiate discussions with and among respondents, on the basis of broad discussion guidelines. Most discussions will take place in the village schools, community centres or elite houses. Open areas will be avoided to check interference from curious onlookers who would vitiate the group atmosphere. The proceedings of focus group sessions will be tape recorded.

Each category of three key informants - young mothers, mother-in-laws and heads of the households, numbering 200 having children under five years of age will be randomly selected from village records. All traditional village practitioners, be they unqualified allopaths, homeopaths, kabiraj or herbal healers, will be identified from the selected villages and interviewed. Pre-tested questionnaires having open-ended and structured queries will be used for this purpose. The same questionnaire will be used to interview young mothers, mother-in-laws and heads of the households (Annexure - B). A separate questionnaire will be used to interview the traditional village practitioners (Annexure - C).

To accomplish the tasks of focus group discussions, and in-depth interviews, 3 teams each consisting of a qualified and experienced male health assistant (HA) and a newly recruited female community health worker (CHW) will be trained on interview and focus group discussion techniques. A senior field research officer (SFRO) of the Matlab project with long experience in the field will be responsible to supervise the work of the HAs and CHWs.

For the purpose of a prospective diarrhoeal surveillance the study area will be reduced to half of its initial size and will be comprised of a population of 5,000 instead of 10,000. To follow-up the diarrhoea episodes in a routine weekly surveillance, the services of the CHWs working intensively in their localities will be essential. They will complete a weekly diarrhoea surveillance form (Annexure-D) as soon as they identify episodes of diarrhoea and check about patient's conditions on alternate days in addition to completing their daily assigned work. Their work will be supervised and checked by hierarchy of persons, the HAS, SFRO and the Investigators including a physician.

Overall responsibility of designing and implementation of the project will be with the principal and other investigators. Major activities of the project are: staff training, eligible household listing, focus group sessions, in-depth interview of key informants, diarrhoea surveillance, coding, data analysis and report writing. Implementation of this protocol will require 18 months (Annexure - E).

## Sample selection procedures

This study will have three phases completed in sequence: (1) focus group discussions and (2) in-depth interviews of key informants in a population of 10,000 and (3) diarrhoea case follow-ups through weekly surveillance in a reduced area, having a population of 5,000. The first village will be randomly selected from the comparison area of DSS which excludes villages in the embankment project. Then the contiguous villages around this village will be added till a cluster of 10,000 population is formed. All the households having children less than 5 years old will be listed from the computerized up-dated record books of these villages.

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Households will then be grouped according to, (a) young mothers having under-five children, (b) mother-in-laws with or without such children including daughter-in-laws with or without such children (having the presence of any child aged <5 years in either or both cases), and (c) heads of households with under-five children. Focus group discussions numbering twelve to 15 will be arranged with young mothers, mother-in-laws, heads of the households and traditional village practitioners. In each focus group session there will be 5 to 10 respondents, randomly selected having their age, sex and education and, if possible, marital status matched. A random sample of 200 respondents from each of these categories (a, b and c) will be chosen for interview. All the traditional village practitioners from the study area will be identified and interviewed separately. Weekly diarrhoea surveillance of <5 years old children will then be conducted for one year in a reduced population of 5,000 from the same area.

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## Sample size calculation

A) **For key-informants interview:**
Mothers perceiving that ORS helps rehydration = .15

$$n = \frac{p(1-p)}{E^2} \times Z^2$$

missing

Statistical consideration : $\alpha = 0.05$
$= 1.96$
$E = .05$

$$n = \frac{(.15)(.85)}{(.05)^2} \times (1.96)^2 = 200$$

We have to interview 200 mothers. Similarly, we have to choose 200 mother-in-laws and 200 heads of the households and thus make a total of 600 respondants.

B) **For weekly surveillance :**
Mothers perceiving that ORS helps rehydration = .15 = $p_1$

Mother-in-laws perceiving that ORS helps rehydration = .10 = $p_2$

Heads of household perceiving that ORS helps rehydration = .10 = $p_2$

Statistical consideration: $\alpha = 0.05$, $\beta = 0.20$ } = $(Z_\alpha + Z_\beta) = 7.9$

$$n = (Z_\alpha + Z_\beta)^2 (p_1q_1 + p_2q_2)/(p_2 - p_1)^2$$

$$= (7.9) \frac{(.15)(.85)+(.10)(.90)}{(.15-.10)^2}$$

= 700 episodes in each group

Assuming 3.5 episodes of diarrhoea per child per year, we need to follow-up about (700/3.5) 200 children in each group ie. a total of 600 children for a year.

Refs: W.G. Cochran. Sampling techniques, 1963, 2nd edition, John Wiley & Sons, New York.

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## Worker selection, training and assignments

Trained and highly experience male health assistants from the Matlab Project will be assigned to interview the individual key informants. Since the majority of the respondents are females (young mothers and grand-mothers), newly hired resident female CHWs from the study villages will form teams with the male HAs. Three such teams will be constituted to do the interviews. All field workers, HAs and CHWs will be properly trained to make them acquainted with routine field records of Matlab DSS, individual interview and focus group techniques. Special emphasis will be given in having courses emphasizing dehydration, rehydration and ORT use. These training courses will be conducted by the investigators and a senior field research officer (SFRO) from the Matlab Project. The HAs will be particularly trained in focus group discussions, since the investigators will specially monitor such discussions; the HAs's role will be to assist them. Weekly diarrhoea surveillance, the final phase of the protocol will be performed by the CHWs who will be residents in the villages included in surveillance programme.

## Service component

The field workers, specially the CHWs, will be adequately trained about basic concepts of diarrhoea, dehydration, oral rehydration therapy, preparation of oral rehydration solution and its administration to diarrhoea patients. The CHWs will carry ORS packets with them to give to affected households. Every effort will be made to treat diarrhoea episodes at home. Serious diarrhoea patients will be referred as quickly as possible to ICDDR,B treatment centre at Matlab.

## Data processing and analyses

Intra-group and inter-group analyses will include variables like, classifications of diarrhea, its causes, practices related to eating and feeding during and following diarrhoea, knowledge related to dehydration, and use of ORT. Analyses will also include age, sex, education, occupation, marital status and family size of respondants. Univariate, bi-variate and multi-variate (logistic regression) analysis will be used. To estimate the intra and inter-group differences, applicable statistical tests (chi-square etc.) will be used. A computer will be used to expedite data analysis.

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Budget justification :

No additional office space will be required for this protocol. Existing space and facilities available in the special studies Branch of Matlab Project will be utilized. Mostly existing staff of Matlab Project (one SFRO and three health assistants) will be engaged. The only category of field workers will be the three female CHWs to be recruited from the selected study areas. CHWs are low paid and their salary is comparable to similar personnel in the government health system. They being the grass-root level workers are crucial to receive local cooperation and to interview women respondents who would not like to appear before the male interviewers who are not known to them. The protocol will require transportation for the investigators to make visits to Matlab and to field areas every week; for the supervisors to constantly check work of the health assistants and the CHWs daily in the several selected villages. However, to minimize the cost, transport use will be shared with other on-going projects in Matlab.

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## Proposed budget for 18 months

Particulars:

(1993+1994)

| Personnel | % of time | 1993 (Jan-Dec) | 1994 (Jan-June) | Total (US$) |
|---|---|---|---|---|
| Md. Shafiqul Islam | 50% | 7,564 | 3,782 | 11,346 |
| Dr. Abu Eusof | 30% | 4,615 | 2,308 | 6,923 |
| Mr. A.I. Chowdhury | 15% | 1,149 | 575 | 1,724 |
| Mr. Emdadul Haque | 50% | 4,098 | 2,049 | 6,047 |
| Mr. Khalilur Rahman II | 100% | 5,305 | 2,653 | 7,958 |
| Mr. S. R. Paul | 100% | 5,230 | 2,615 | 7,845 |
| Mr. A. Baten | 100% | 5,124 | 2,562 | 7,686 |
| CHWs (3) | 100% each | 2,700 | 1,350 | 4,050 |
| Jr. Programmer | 10% | 720 | 360 | 1,080 |
| DET (1) | 20% | 864 | 432 | 1,296 |
| Clerk/Typist (Gr.II, Level-3) | 30% | 854 | 427 | 1,281 |
| Country Boatman (3) | 100% | 1.000 | 500 | 1,500 |
| | Total: | 39,223 | 19,613 | 58,836 |

<u>Supplies and Logistics:</u>

| | 1993 | 1994 | Total |
|---|---|---|---|
| Local travel, transport, perdiem | 7,600 | 3,800 | 11,400 |
| Printing | 500 | 200 | 700 |
| Supply/ Stationary | 2,000 | 1,000 | 3,000 |
| Computer | 500 | 500 | 1,000 |
| X-ray/Mimiography | 200 | 100 | 300 |
| Medical Illustration | 200 | 200 | 400 |
| Total: | 11,000 | 5,800 | 16,800 |
| Grand Total: | 50,223 | 25,413 | 75,636 |

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Research on 'Perceptions' about Diarrhoea and Variation in its home management

## 'Consent Form'

Indigenous concepts of diarrhoea and its home treatment are most often ignored. An understanding of the health action initiated in response to diarrhoea in children is essential for promoting current diarrhoea management. It is now well-recognized that oral rehydration therapy is a simple treatment for diarrhoea. Before starting an ORT programme, the perceptions people have of the types, causes and treatment of diarrhoea, and other related issues, eg. dehydration and rehydration should be investigated.

We have undertaken this research project to interview young mothers, mother-in-laws, heads of the households and all the village practitioners in your village and hold discussions with them in groups of 5 to 10. A one-year household surveillance for finding and treating diarrhoea patients will be carried out in your locality. When conducting the interviews, you will be required to respond to a questionnaire administered to you by our workers forming teams consisting of male and female staff. When holding the group discussions, the same workers will be coming to you and the results of such discussions will be recorded on paper or tape-recorded. During the diarrhoea surveillance and home visits, mainly our female workers will go to every house weekly, but on alternate days when diarrhoea patients will be found. They will carry ORS packets to treat mild patients with diarrhoea but serious cases will be referred to nearby hospital/ICDDR,B treatment centre. Occasionally, a physician will visit effected houses to check how our workers are taking care of patients.

You are assured on behalf of the researchers of the project that confidentiality of all your information will be strictly maintained. You will not run any risk of facing a danger by participating in this research. Participation by you and your child/children depends completely on your free will. There is no chance of any harm or fear even if you do not agree to participate. You can also ask us any question about our research which we are ready to reply. You can withdraw your consent whenever you like. This will not deprive you of our treatment facilities. If you accept the above conditions and are willing to participate in our research, please sign or put your left thumb impression below.

------------------------

Signature of interviewer

Date : ---------------

------------------------------------

Signature(s)/thumb impression(s) of young mother(s) /mother-in laws/ head of households/village practitioners

Date : ----------------

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Annexure - A

Perceptions of diarrhoea and variation of its home management

Focus group discussion

(Pre-test questionnaire)

Name of Moderator:_______________

Date:_______________
Day Month Year

Respondent category: Young mothers: ☐

Mother-in-laws: ☐

Head of households: Male ☐ Female ☐

Village practitioner: Male ☐ Female ☐

Age group:__________ Marital status:__________ Education group:__________

1. What is diarrhoea?__________

How many stools in a day will indicate a diarrhoeal problem?__________

How many of them cause concern?__________

2. Is diarrhoea self limiting?__________

3. At what age is diarrhoea most common?__________

4a. Why do children die from diarrhoea?__________

4b. After how many of diarrhoeas can a child die?__________

5. How many days does an episode of diarrhoea continue?

6. What are the names for various types of diarrhoea and what are their respective causes?

__________ __________

__________ __________

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7. What are the specific treatment for each type of diarrhoea?

________________________ ____________________________

________________________ ____________________________

8. What type of diarrhoea is more common in the community?_____________

9. What is the most serious type of diarrhoea?_________________________

   What are it's symptoms?____________________________________________

10. What measures would you take to protect children from developing diarrhoea?

11. What do you think is the ideal form of treatment for diarrhoea?

____________________________________________

12. Where do you dispose the feces of a child with diarrhoea?

13. Where do you wash the clothes stained with feces of a child with diarrhoea?

14. How do you wash your hands after cleaning your child's feces?

15. What is the first thing you do when you see that the child has diarrhoea? What do you do in the next stage? And the next?

16. What problems do you see other than loose motion, in case a child has diarrhoea?

17. What is dehydration?______________________________________________

    What are its symptoms?___________________________________________

    What is its treatment?___________________________________________

18. What is oral saline?______________________________________________

    What is its function? ___________________________________________

    When it is used?_________________________________________________

19. How soon oral saline should be used?______________________________

    How long it should be continued?_________________________________

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20. What will you do if your child vomits after he is offered oral saline?

______________________________________________

21. What are different kinds of oral saline?________________________

22. What is wrong if you do not give oral saline to your child with diarrhoea?________________________________________

What is the benefit if you give him oral saline as soon as diarrhoea begins?________________________________________

23. What is the main function of packet ORS?____________________

How do you make it: how much do you put in how much of water?________

How frequently do you give it?__________________________

How much at a time?__________

24. What type of other fluid would you give to your child with diarrhoea and why do you give them?________________________________

25. What are the types of fluids that your children are used to drink?

______________________________________________

Do you withdraw them in case of diarrhoea?__________________

What are the reasons for such withdrawal?__________________

26. When your children have diarrhoeas/loose stool?______________

What should they be given to eat and drink?________________

27. What would you feed your children after they recover from diarrhoea?

______________________________________________

28. For how long (weeks/days) would you feed these to your children?

______________________________________________

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29. Should mother's milk be continued during diarrhoea? Yes______,Why?________
No_______,Why?________

30. If mother's milk is not given during diarrhoea what else would you give,

or would you give nothing?________________________________________

31. Remarks (if any):________________________________________

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Perceptions about diarrhoea and variation in its home management

Interview of key informants
(Pre-test questionnaire)

Name of Interviewer:__________________

Date:_____________________________
Day Month Year

Respondent category: Young mother: ☐

Mother-in-law: ☐

Head of household: Male ☐ Female ☐

Name of respondent:______________________CIO No.______________RID No.____________

Age:__________Marital status:_______________Education:___________________________

Occupation of head of household:____________Highest education in household:________

No. of children 5-10 years old:_____No. of own children_______No. of other

No. of children <5 years old:_______No. of own children:______No. of other

children:___________________Own youngest child: Age:_____Sex:_____

Other youngest child: Age:_____Sex:_____

Total no. of members in the household:___________________________________

Household type: Nuclear:_____________Extended:__________________________

1. What happens after a child has diarrhoea?__________________________

2. Is diarrhoea seld-limiting?_______________________________________

3. At what age is diarrhoea most common? ____________________________
(Month/Year)

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4. How many days an episode of diarrhoea continues? ______________

5a. Why do children die from diarrhoea? ----------------------------

5b. After how many days of diarrhoea can a child die? ______________

6. Are all diarrhoeas similar or they are different?

   a) similar
   b) different
   c) don't know

7a. If there are different or similar types of diarrhoea, what are those, and what are the specific features of each?

| Types of diarrhoea: | Specific features: |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

7b. What are the causes of each type of diarrhoea?

| Types of diarrhoea: | Causes of diarrhoea: |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

7c. How each type of diarrhoea is treated?

| Types of diarrhoea: | How treated? |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

7d. Which types of diarrhoea do you think are more harmful for a child and which ones are less harmful?

More harmful diarrhoea: ______________________________

Less harmful diarrhoea: ______________________________

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7e. Among the more harmful diarrhoeas, which one do you think is the most dangerous type for a child? ______________________________

8a. Do you know of anything that will keep diarrhoea away from your child?

Yes:_______ No.:________

If yes, ask, what measures will you take to protect your child from developing diarrhoea?______________________________________________

8b. Where do you dispose the feces of a child with or without diarrhoea?

Feces disposal: Diarrhoeal stool____________________
Normal stool________________________

8c. Where are clothes stained with feces of a child washed/disposed?_________

8d. How do you clean the feces of your child?____________________________
(cotton wool, cloth, water, bare hand)

8e. How do you wash your hands after cleaning your child's feces?__________
(under running water, in standing water, used soap, used any other cleaning material)

9. What action would you take when your child has an attack of diarrhoea?

a) take him/her to hospital/health centre
b) take him/her to a village practitioners
c) consult a qualified physician
d) put an amulet
e) give spiritual water
f) give drugs
g) give oral saline (specify ORS/LGS)_________
h) stop giving food
i) say prayer
j) don't know

10. Who in your household makes decision or gives advice about treatment of a child?

________________________________________________________

11. When do you think that a child with diarrhoea requires treatment?

________________________________________________________

12. When should you take your child with diarrhoea to a hospital or health centre?______________________________________________

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13. In case of diarrhoea in a child what problems do you see other than frequent loose motion?

______________________________________________________________

14. When do you think you should treat diarrhoea immediately?

______________________________________________________________

15. What do you think is the ideal treatment for diarrhoea?__

16a. Did any child in your household have diarrhoea during the last one week?

Yes:________ No.:________

16b. If yes, ask, date of onset: Day Month Year; Age: Day Month Year. Sex__

16c. What was the type of stool you observed (stool consistency and colour etc.)?

______________________________________________

16d. What was the daily frequency of stool and duration (days) of this episode?

______________________________________________

16e. Who treated the child?

______________________________________________

16f. What kind of treatment was given to the child? If various treatment was given, what sequence was followed, what was the reason for such sequence?

______________________________________________

16g. If patient was treated with ORS/LGS,

When started administration? ________________________

How long it was continued? __________________________

How much of it was used? ___________________________

What was the reason/s for giving it? ________________

16h. If the child was treated with ORS, then check the following:
Whether the mother has washed her hands first, Yes_____ No____
If yes, with what?_______________________________________________
If she has measured the quantity of water? yes_______ No______
If she has used a clean container? yes__________ No__________
If she has mixed all the packet's contents into the container?
yes__________ No__________

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If she has begun with a new packet within 12 hours from preparation?
yes__________ No__________

If she has tested the solution herself? yes______ No__________

If yes, what was its taste like? ____________________________

17a. Do you know what is dehydration?

Yes: __________ No.:_________

If yes, ask, what are the symptoms of dehydration?

_______________________________________________________

17b. Do you know any treatment of dehydration?

Yes:__________ No.:_________

If yes, ask, what is the treatment of dehydration?

_______________________________________________________

18a. Do you know what is oral saline?

Yes:__________ No.:_________

If yes, ask, why oral saline is used?

_______________________________________________________

18b. What is the function of oral saline?

_______________________________________________________

18c. How soon do you think oral saline should be given to a child when he/she has diarrhoea and why?

_______________________________________________________

18d. How long you will continue to give oral saline to your child sick with diarrhoea?

19. What will you do if your child vomits after administration of oral saline?

a) stop giving oral saline___________________________
b) continue to give it in small amount______________
c) any other action (specify)_______________________

20a. Have you ever used oral saline for any member of your household?

Yes:__________ No:_________

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20b. If yes, ask, when?________________________________

What type of oral saline?____________________
How much of it was used?_______(in litre/seer or packet)
For how long it was continued? Why was oral saline given?
____________(in days/hours)

20c. If no, ask, why?____________________________________

21. Are there different kinds of oral saline?

Yes:________ No.:________

If yes, what are they?______________________________

22. What do you think packet ORS is used for?______________

23. Where do you get ORS packet when your child has diarrhoea?
_____________________________________________

24. What will happen to your child when he/she has diarrhoea and if you do not give him oral saline?
_____________________________________________

25. If you give oral saline to your child as soon as diarrhoea begins, how do you think it will benefit him?
_____________________________________________

26a. Do you know what is home-made oral saline? Yes:_____ No._____

26b. If yes, ask, do you know the ingredients and their quantity required to prepare home-made oral saline?

Yes:_______ No.:________

26c. If yes, STATE:

| 'Laban gur' solution (LGS): | Ingredients | Quantity |
|---|---|---|
| | a)________________ | ___________ |
| | b)________________ | ___________ |

b) continue to give it in small amount________________
c) any other action (specify)___________________

20a. Have you ever used oral saline for any member of your household?

Yes:________ No.________

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27a. What do you think LGS or SSS is used for?

______________________________________________________________

27b. What amount of solutionof LGS or SSS a child with diarrhoea should have?

______________________________________________________________

27c. For how long you will feed the solution to a sick child?_______

28a. Do you have 'gur' in your home now?

Yes:________ No.:________

If yes, check, could show________________, could not show_______

28b. Do you have sugar in your home now?

Yes:________ No.:________

If yes, check, could show________________, could not show__________

29a. Do you give any other fluid to a child with diarrhoea?

Yes:_______ No.:_______

29b. If yes, ask, what type of fluids?______________________________

29c. Ask, why do you give them?____________________________________

30a. Do you withdraw any type of fluid that a child is used to drink?

Yes:_______ No.:_______

30b. If yes, ask, what are the types of fluid that are withdrawn?

______________________________________________________________

30c. Ask, why do you withdraw them?

______________________________________________________________

31. What would you do about feeding a child with diarrhoea?

1. Continue normal feeding, why?_____________________
2. Decrease feeding, why?____________________________
3. Stop feeding, why?________________________________

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32. What would you do about a child's feeding once the diarrhoea is over?

1) Continue as usual_______________
2) Decrease feeding: why?_______________
3) Increase feeding: why?_______________

33a. Would you change the variety of food when your child is sick with diarrhoea?

Yes:________ No.:________

33b. If yes, ask, what variety of food would be offered to the child?

_______________________________________________

34. What would you do about breastfeeding of your child when he has diarrhoea?

a) Continue as usual_______________
b) Increase breastfeeding_______________
c) Decrease breastfeeding, why?_______________
d) Stop breastfeeding, why?_______________

35. Would you stop breastfeeding if,

a) Your child has fever, No.:______ yes:_____ why?_________
b) You have fever, No.:______ yes:_____ why?_________
c) You have diarrhoea, No.:______ yes:_____ why?_________

36. Remarks (if any):_______________________________

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Annexure - C

## Perceptions of diarrhoea and variation of its home management

<u>Interview of village practitioners</u>
(Pre-test questionnaire)

Name of Interviewer:____________________

Date:________________________________
Day Month Year

Village practitioner: Male ☐ Female ☐

Name of the respondent:____________________________CID No.____________RID No.________

Age:____________Marital status:_______________ Education:__________________________

Occupation (if, other than a village practitioner)___________________________________

1. How long have you been practicing in the locality?__________________________

2. Do you practice full time or part time?______________________________________

3. What type of training do you have and for how long were you trained?________

4. Where did you receive your training from?____________________________________

5. Where do most of your patients come from?___________________________________

6. What proportion of your patients are children? (aged 10 years or less)_____

7. What are the different diseases/illnesses that occur most often among children <5 years old?__________________________________________

8. Which one of these diseases/illnesses are serious enough in your opinion? (Interviewer to arrange responses in a ranked order?_______________________

9. Why do you consider these diseases/illnesses to be serious? (List reasons according to specific diseases):

| Disease/illness | Why serious? |
|---|---|
| | |
| | |
| | |
| | |

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10. What happens after a child has diarrhoea?

______________________________________________________________________

11. Is diarrhoea self limited?____________________________________________

12. At what age is diarrhoea most common?_______________________________

13. How many days an usual episode of diarrhoea continue?________________

14a. Why do children die from diarrhoea?___________________________________

14b. After how many days of diarrhoea can a child die?____________________

15. Are all diarrhoeas similar or are there different types of diarrhoea?

______________________________________________________________________

16a. If there are different types of diarrhoeas, ask, what are those, and what are their specific features?

| Types of diarrhoea | Specific features |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

16b. What are the causes of each type of diarrhoea?

| Types of diarrhoea | Causes of diarrhoea |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

16c. How each type of diarrhoea is treated?

| Types of diarrhoea | How treated? |
|---|---|
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |
| ________________ | ________________ |

16d. Which type of diarrhoea do you think is harmful for a child and which ones are less harmful?

Harmful diarrhoea:___________________________________________
Less harmful diarrhoea:______________________________________

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16e. Among the harmful diarrhoeas, which one is the most dangerous type for a child?

______________________________________________________________

17. What are the symptoms of severe diarrhoea? (List the symptoms):_______

18a. What measures would you take to prevent a child from getting diarrhoea?

______________________________________________________________

18b. What do you normally prescribe to an average case of loose motion? (Rank answers in order and specify name of medicine, if prescribed)

______________________________________________________________

18c. What do you think is the ideal form of treatment for diarrhoea?________

18d. What are the consequences of diarrhoea if not properly treated?

______________________________________________________________

19a. Do you know what is dehydration? Yes:_______ No.:_______

If yes, ask, what happens to a child when he/she is dehydrated?

______________________________________________________________

19b. What measures would you advise to prevent dehydration?

______________________________________________________________

19c. What is the best treatment for a dehydrated child?

______________________________________________________________

19d. What are the different types of dehydration?

______________________________________________________________

19e. What are the signs and symptoms of different types of dehydration?

| Types of dehydration | Signs and symptoms |
|---|---|
| | |
| | |
| | |
| | |

20. Do you know about oral saline? Yes:_____ No.:_____

If yes, ask, what it is?______________________________________

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21. Do you know what is ORS? Yes:_____ No.:_____

If yes, ask, what are its ingredients?________________________________

22. Have you ever recommended ORS to your patients? Yes:____ No.:_____

If yes, ask, how often did you recommend this to them?________________

23. What do you think is the function of ORS in a diarrhoeal child?_______
______________________________________________________________________

24a. What are the symptoms or signs that indicate a need for ORS? How do you decide which child needs it and which child does not need it?_________

24b. How much of ORS should be used when a child needs it?________________
______________________________________________________________________

24c. How long ORS should be continued in such a case?_____________________

25. Do you know about home-made oral saline? Yes:_____ No.:_____

If yes, ask, what are the different types of home-made oral saline?
______________________________________________________________________

26. What are the ingredients and their quantity needed to prepare different types of home-made oral saline?

| Type of home-made oral saline | Ingredients | Quantity |
|---|---|---|
| 'Laban-gur' solution (LGS): | ____________ | ____________ |
| | ____________ | ____________ |
| | ____________ | ____________ |
| | ____________ | ____________ |
| Sugar-salt solution (SSS): | ____________ | ____________ |
| | ____________ | ____________ |
| | ____________ | ____________ |
| | ____________ | ____________ |

27a. What do you think LGS or SSS is used for?______________________________

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27b. Have you ever recommended home-made solutions (LGS/SSS) to your diarrhoea patients? Yes:_____ No._____

If yes, ask, what did you recommend and in what circumstances or conditions you did so?____________________________________________

27c. Did you make sure that it has been properly used? Yes:____ No.:____

If yes, ask, how did you ascertain?____________________________________

28a. Would you recommend any other available fluids to a child with diarrhoea?

Yes:______ No.:______

If yes, ask, what are those fluids?____________________________________

28b. Would you advise to withdraw any fluid that a child is used to drink?

Yes:______ No.:______

If yes, ask, what are those fluids and why do you recommend their withdrawal?

| Types of foods | Reason for withdrawal |
|---|---|
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |

29a. What types of foods do you recommend to a diarrhoea patient and why?

| Type of foods | reasons for giving |
|---|---|
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |

29b. What types of drinks do you recommend to a diarrhoea patient?

| Types of drinks | Reasons for giving |
|---|---|
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |
| ______________________________ | ______________________________ |

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30. What would you recommend for a child who is exclusively breast fed when he/she has diarrhoea?

Continue breastfeeding as usual:______________________________
Increase breastfeeding: why?______________________________
Decrease breastfeeding: why?______________________________
Give ORS______________________________
Others (specify)______________________________

31. What would you recommend for a child about his/her feeding once diarrhoea is over?

Continue feeding as usual:______________________________
Decrease feeding: why?______________________________
Increase feeding: why?______________________________

32. Remarks (if any):______________________________

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Annexure - D

**Perceptions of diarrhoea and variation of its home management**

**Weekly diarrhoea surveillance**
(Pre-test questionnaire)

Name of Interviewer:________________

Date:______________________________
Day Month Year

Name of mother:__________________________CID No.___________RID No.____________

Marital status:______ Education:________ Occupation of head of household:______

Highest education in the household:_________No. of children 5-10 years old:_____

No. of own children:_______________No. of other children:_______________________

No. of children <5 years old:_________________________________________________

No. of own children:_______ No. of other children:_______ Own youngest child:

Age:_____ Sex:______ Other youngest child: Age:_______ Sex:_____ Total no. of

members in the household:____________

Household type: Nuclear______________ Extended___________

Name of patient:_______________________Age:_____Sex:_____CID No.____RID No._____

1a. Date of onset of diarrhoea ________ ________ ________
Day Month Year

1b. Date diarrhea discontinued ________ ________ ________
Day Month Year

2. Frequency of stool passed by the patient:

No. on the first day of the episode__________________

No. on the day of 1st visit (if different_____________
(from first day)

No. during the episode______________________________

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3a. Type of stool passed by the patient:

Watery_______________
Liquid_______________
Thick liquid__________
Other (specify)________

3b. Colour of stool_____________

4a. Where have you disposed the feces of the patient?______________________

4b. Where have you washed/disposed of patient's feces stained clothes?______

4c. How have you cleaned the feces of the patient?_________________________
(cotton wool, cloth, water, bare hand)

4d. How have you washed your hands after cleaning the patient, if it is a child? (under running water, in standing water, used soap, used any other cleaning material)

5. Did the patient vomit? Yes:_____ No:_____

If yes, how many times he vomited?

Before diarrhoea started___________________
After diarrhoea started____________________

6. Was the patient taken to a clinic for treatment? Yes:____ No:___
If yes, ask, where is the clinic located?__________________________
How far it is from the patients home?_____________________________
What kind of treatment received?_________________________________

7a. Was any treatment started at home? Yes:____ No.:_____

7b. If yes, what was/were the kind of treatment(s) offered?______________

7c. If more than one treatment was given, was it concurrent or sequential or both?______________________________________________

Reason for such action?______________________________________

If treatment was sequential state that?__________________________

8a. If treated with ORS/LGS, what prompted this treatment?
_____________________________________________________________

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8b. If treated with ORS/LGS, when after onset of diarrhoea was it started?
______________________________________________________________

8c. If treated with ORS/LGS, did it continue till the patient recovered?

Yes:______ No.:______

If (yes/no), why?______________________________________________

9. If the child was treated with ORS, then check the following:

Whether the mother has washed her hands first, Yes_______ No_______

If yes, with what ?____________________________________________

If she has measured the quantity of water, Yes__________ No________

If she has used a cleaned container, Yes_______________No__________

If she has mixed all the packet's contents into the container
Yes____________ No________

If she has begun with a new packet within 12 hours from preparation, Yes__________________No____________________

If she has tested the solution herself, Yes________NO____________

If yes, what was its taste like?______________________________

10. Did the patient vomit after ORS/LGS was administered?

Yes:______ No.:______

If yes, ask, if

a) Continued solution as it is_____________________________
b) Stopped giving it_______________________________________
c) Continued it in small quantity frequently_______________
d) Other (specify)_________________________________________

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11. Was any fluid that the patient used to drink was stopped?

Yes:_____ No.:_____

If yes, what type of fluids and why were they stopped?

| Type of fluid stopped | Reasons for stopping |
| --- | --- |
| | |
| | |
| | |
| | |

12. What have you done regarding feeding of the patient

a) Continued usual feeding, why?______________________________
b) Decreased feeding, why?______________________________
c) Stopped feeding, why?______________________________
d) Increased feeding, why?______________________________

13. Have you made any change in the variety of the patient's food?

Yes:_____ No.:_____

If yes, ask, what variety of food is offered to the patient and why are they offered?

| Variety of foods offered | Reasons for offering the foods |
| --- | --- |
| | |
| | |
| | |
| | |

14. (To be specifically asked of a mother, if the child is breastfed): What have you done regarding breastfeeding of your child with diarrhoea?

a) Continued breastfeeding as usual, why?____________________
b) Decreased breastfeeding, why?____________________
c) Stopped breastfeeding, why?____________________
d) Increased breastfeeding, why?____________________

15. Outcome of this diarrhoeal episode:

Recovered________Taken to hospital________Other (specify)________

Date:______________ Day____________ Month_________ Year__________

16. Remarks (if any):______________________________________________

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Annexure - E

Action plan for proposed time schedule (18 months)

| Activities | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Staff listing | - | | | | | | | | | | | | | | | | | |
| Household listing | - | | | | | | | | | | | | | | | | | |
| Pre-testing | - | | | | | | | | | | | | | | | | | |
| Focus group diacussion (Key informants) | | - | | | | | | | | | | | | | | | | |
| Interviews (Key informants) | | | - | - | | | | | | | | | | | | | | |
| Weekly diarrhoea Surveillance | | | | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| Coding | | | | | | | - | - | - | - | - | - | - | - | - | - | | |
| Data analysis | | | | | | | | | | - | - | - | - | - | - | - | - | |
| Report writing | | | | | | | | | | | | | - | - | - | - | - | - |

Renew 11

Critique on protocol

Title : A better title would be : Perceptions about diarrhoea and variation in its home management.

Specific aim: Why will the response of only women responders be compared with the scientific knowledge ? Why not these of the head of the families and the village practitioners ? Is intra, group comparison aimed at ? What does the focus group discussion aim to achieve ?

Methodology : (i) What sampling teoniques will be used to choose 600 study individuals from a population of 6000 ? How many village practitioners will be included in the study and how ? How a sub-set of respondents having current cases of diarrhoea will be chosen ? How many of them will be included in the study ? How individuals for the focus group will be selected ? What measure has been adopted to make the sample a representative one ?

(ii) What interview schedule or agenda will be used for the focus group discussion ?

(iii) What models/tests will be used for statistical analysis ? What is the aim of data analysis ? Is it intra-group difference that interests the researcher ? Is it the effect of some indepent variable on a dependent variable that is aimed to be analysed ? It inter group comparisons are aimed at controlling of variables like age, the level of education, occupation, parity, sex, socio-economic status and family size will be needed. , If the effect of some independent variable is aimed at a logistic regression may be suitable. In analysing data it must be remembered that the village practitioners are different from the other three proposed study groups on many accounts.

(iv) What alternative(s) will be persued if an open ended question is not understood by respondent ? Is any verbal lead question allowable ? How will the observers guard against bias in this case ?

Reviewer: 2

Please briefly provide your opinion o this proposal, giving special attention to the originality and feasibility of the project, its potential for providing new knowledge and the justification of financial support sought. Include suggestions for modifications (scientific or financial) where you feel they are justified.

(Use additional pages if necessary)

Although the approach is laudable and the need for cultural information to ... promote sound CDD/ORT messages is clear, I think the large scale survey is not necessary. As the investigators rightly note, Chowdhury (1988) has already investigated the same issues with survey techniques, so has Petra Oranski. Moreover, how will the survey results actually help formulate the program messages?

I would suggest that qualitative methods, including group discussions, key informant interviews, case episode followups, etc. form the core of this research. In addition, subsequent behavioral trials, e.g. asking households to "try out" the new behaviors (after the formative work).

Contd - P/2

will help to identify Page 44a
to adoption/sustainability major constraints
description of the behavioral trials (for a detailed
alogy, see Griffiths et al 1989 methodol-
Brown + Bentley 1989 -- both available +
through PRITECH (or certainly both should be
in the ICDDR,B library).

Dropping the survey (which obviously
astly reduces the budget) does not
rean the research will be less difficult.
ndeed, it will be more difficult, since qualita-
ive methods require trained and skilled
nvestigators/data collectors. Nevertheless,
I believe these methods will deliver
the aims of the project, whereas the
survey data/methods (while perhaps useful as
complementary data) will not.

If the investigators pursue this
search, I suggest that they write
Dr. Elizabeth Herman and/or Dr. Peggy
ntley at John Hopkins/Dept. IH
alth. They have developed and are
rking on the final revision of a
otocol/manual to investigate home-
d mgt for development of program
ssages for CDD/ORT

Reviewer: 3

n general, I think that we are at the point (or should be at the
oint) of moving beyond KAP studies. BRAC has already conducted
xtensive studies on perceptions about diarrhea in Bangladesh.
he questions I have are (1) is there any reason to believe that
he BRAC findings are no longer applicable because of changes of
erceptions over recent years, (2) is there any reason to think
hat Matlab residents would have different perceptions than the
espondents in the BRAC study, and (3) even if they do have
ifferent perceptions and practices, would that alter policy
ormulation on diarrhea control by the government or NGOs? To
nswer these questions, I would recommend that we hold prelimi-
ary discussions with BRAC, the Ministry of Health, and other
overnment agencies or NGOs which may have a good understanding
f these situation. If the answer to these questions is "no,"
hen why do the study?

ven if we decide to conduct this study, I think we could do it
n a more cost-effective way. First, we could hold informal
iscussions with community leaders in Matlab about village/house-
old decision-making on health issues. For example, there is no
eason to interview elderly women and household heads if mothers
re generally the ones to make decisions concerning diarrhea.
econd, holding both interviews and focus group discussions is
nnecessary. For a study focusing on perceptions, focus group
iscussions are sufficient. There should be an emphasis on the
epth of knowledge in a specific location rather than its repre-
entativeness, unless the intent of the study is to help the
overnment design specific policies. (There is no hint of this
n the proposal.) Given the size of the BRAC study, I suspect it
ould be of greater use in policy formulation than this study.
hird, there should be some emphasis in this study about the sort
f outreach structure that could be designed to transmit informa-
ion and commodities to households. Is there stable village
eadership? Can volunteers be recruited? What would be the cost
f recruiting and training community health workers or mobile
edical teams? Who is most effective in teaching mothers how to
ake ORS? Is there a practical and cost-effective way of giving
omen containers to measure the ingredients? I think these are
ore relevant questions than the ones asked on the question-
aires. They are certainly more relevant in designing appropri-
te strategies and interventions. I also think that given its
pecial character Matlab is not the most appropriate setting for
his kind of study. I also think the cost of the study is high.

Contd - - P/2

Gen Page - 2



Project Title: Perceptions of diarrhoea and variation of its home management with special emphasis on mothers.

Principal Investigator(s) xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Summary of Referee's Opinions: Please see the following table to evaluate the various aspects of the proposal by checking the appropriate boxes. Your detailed comments are sought on a separate, attached page.

Rank Score

| | High | Medium | Low |
|---|---|---|---|
| Quality of Project | | ✓ | |
| Adequacy of Project Design | | | ✓ |
| Suitability of Methodology | | ✓ | |
| Feasibility within time period | ✓ | | |
| Appropriateness of budget | ✓ | | |
| Potential value of field of knowledge | | ✓ | |

Conclusions

I support the application:

a. without qualification /__/

b. with qualification

- on technical grounds /✓/
- on level of financial support /__/

I do <u>not</u> support the application /__/

Reviewer 14

ব্র্যাক

bangladesh rural advancement committee

BRAC

July 11, 1990.

Dr. A.K.Siddique
Acting Head, Community Health Division
ICDDR,B
Mohakhali
Dhaka-1212.

Dear Dr. Siddique,

Sub : "Mothers' perceptions of diarrhoea and variation in management" (research proposal).

Thank you for your letter of 2 July 1990 regarding the above proposal. Honestly, I believe that I am not an appropriate person to review this. At the same time, however, I feel tempted to say a few words about the proposal. Because of its importance in programme design and my past involvement in it, perception study is a favourite topic for me. I always support such studies and enjoy reading reports on it. From this account I endorse this study proposal. However, I have a few specific comments :

a) It seems to me that the investigators are giving much emphasis on quantitative survey techniques while the questions they are addressing demand more emphasis on qualitative techniques. For example, the major part of the proposed study is the census based on the "pre-test questionnaire". The research questions will better be addressed if this comprehensive questionnaire is used as check-list for focus group discussions(FGDs). If the FGDs are conducted on a cross-section of different target groups and done well, this will generate sufficient data for your purpose. A follow-up survey based on FGD findings can then be done to validate some of these findings.

Conted....P/2.

66, Mohakhali C.A. Dhaka-12. Bangladesh. Tel 600106, 600107. Cable : BRAC Dhaka

b) It is for your information that a large survey done in Bangladesh recently by Ms. Petra Osinski of the Johns Hopkins University, covered very similar topics as detailed in the "Pre-test questionnaire". I am sure you have a copy of Petra's report in your library.

c) The investigators did not mention the proposed site of the study. Given the very low use of ORT in Matlab (P.3 of the proposal), it would be interesting to do this study there. I am sure the study would then be more revealing for us all.

d) A slight clarification. On page 4 of the proposal it was stated that no in-depth study on perceptions was done to improve ORS use in Bangladesh. The study done by us, which was cited in the proposal (ref. 4), was specifically geared towards this and, as mentioned in the paper, a large number of modifications was introduced into the BRAC programme following this study.

Thats all that I have to say. I don't know if these are of any use to you. If you need any clarification on my comments, please don't hesitate to contact me.

Thanks again for letting me read this interesting proposal.

I am sure the outcome of this study will help us know more about diarrhoea and its management in Bangladesh.

Yours sincerely,

Mushtaque Chowdhury

AMR Chowdhury, PhD
Head, Research & Evaluation Division.

Reviewer: 5

Government of the People's Republic of Bangladesh
Directorate General of Health Services
National Control of Diarrhoeal Diseases Programme
6/3, Block - A, Lalmatia, Dhaka - 1207.
Phone : 314581/314574

Dr. A.K.M. Siddique
Acting Head, Community Health Division
ICDDR,B
Mohakhali
Dhaka-1212

Subject : Research Proposal.

Dear Dr.Siddique,

We have received the research proposal titled "Perceptions of diarrhoea and variation of its home management" sent by you for our comments. We have the following observations on your proposal.

1. Survey area - Matlab Upazila:

Matlab Upazila is a demographic surveillance area of ICDDR,B. Many activities are carried out by ICDDR,B on diarrhoea control for a long time in that area. Furthermore, the CDD Household Survey, Conducted by NCDDP in October-December 1990, shows high level of preception in Matlab area which is not in other parts of the country. Hence, the study may be biased with biased results. It would be better if this study could be carried out in other parts also.

2. The CDD Household Survey (October-December 1990) Revealed some quantitative aspects on perception of diarrhoea and home management. But a qualitative study is lacking in Bangladesh to find the reasons for gap between knowledge and practice and the reasons of low perception of knowledge and attitude.

However, we always welcome the researches which will help to develop strategis for effective CDD intervention and ways to improve ORT use.

We hope that this study may help the National CDD Programme in this aspect in long term basis.

Thanks for asking our comments on you research proposal.

With best regards.

( Dr. Md. Anwar Ullah )
Project Director,
CDD Programme
Govt. of Bangladesh.

## Responses to external reviewers' comments

Reviewer 1 :

Title : The title of the protocol is changed to 'Perceptions about diarrhoea and variation in its home management'.

Specific aims : We agree that responses of all key informants - young mothers, mother-in-laws, heads of households and village practitioners will be compared with the scientific knowledge. Both intra and inter-group comparisons are planned. Justification for the focus group discussion to achieve is given under research plan (please see p. 9).

Methodology :

i) Sampling techniques used to choose 600 key informants and inclusion of village practitioners are stated under sample selection procedure (please see p. 10-11). The provision of a sub-set of respondents having current cases of diarrhoea will now be replaced by identification of all diarrhoeal episodes through weekly surveillance in homes. The individuals for the focus group will be randomly selected from a list of key informants who will be chosen from a cluster of villages which will be selected randomly.

ii) The interview schedule or agenda for the focus group discussion is provided in annexure - A.

iii) Univariate, bi-variate and multi-variate (logistic regression) analysis will be used. For further details of data processing and analysis (please see text p. 13).

iv) The questionnaire will be translated into simple Bengali colloquial language and questions will be asked in local dialect with the help of locally recruited workers to facilitate easy communication between an interviewer and a respondant. If a respondent does not understand an open-ended question, the local worker who will be known or familiar to the respondant, will explain the question in as much simple language as possible, the scope for any verbal lead questions will thus be eliminated.

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Reviewer 2 :

We do not plan a large scale survey. It is not true to say that the same issues were addressed by chowdhury (1988) with survey techniques. In fact, this research plans to investigate much beyond chowdhury's work, mothers' perception. For example, we will include in our investigation, perceptions about diarrhoea among young mothers, mother-in-laws, heads of households and village practitioners; how is dehydration recognized, how diarrhoea can be prevented: knowledge and use of oral rehydration therapy, feeding during and after diarrhoea. We have planned to collect both qualitative and quantitative information through (1) focus group discussions and (2) in-depth interview of key-informants - young mothers, mother-in-laws, heads of households and village practitioners, and (3) diarrhoea case episode follow-ups through prospective weekly surveillance in the community.

For the moment we are not going for a behavioral trial, we will take it up later on. We contacted two of the named authors, but the outcome was not fruitful. Their works could not be traced through the literature search in the ICDDR,B library.

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Reviewer 3 :

BRAC's study is extensive in the sense that it has covered a large area of Bangladesh, but not in terms of the agenda of enquiry. This is going to be a study with multiple dimensions having qualitative and quantitative inquires. Investigation of diarrhoea case management in the home setting, for example, is a new aspect among many others. Responses to reviewer's comments related to BRAC's work have already been clarified (please see reviewer 2). Comments from BRAC and CDD programme, Government of Bangladesh have been obtained and incorporated (please see subsequence responses to reviews - nos. 4 & 5, enclosed).

We would not agree that this study could be conducted more cost-effectively since, the health workers to be utilized are already employed by the ICDDR,B in Matlab and the female community health workers (CHWS) will be recruited with much lower pay which is comparable to the national pay scale. Moreover, in Matlab we have an infrastructure which we can utilize with minimum cost and convenience.It is true that in Bangladesh, decisions regarding therapy for childhood diarrhoea are usually made by mothers, but young mothers are advised by their generally more conservative mother-in-laws; when women need medicine, men decide what to buy and health providers are the opinion leaders concerning health care. Also for the purpose of health education, mothers and traditional healers should be targeted; because the former provide the first-line responses to diarrhoea and the latter the primary opinion leaders in all matters of health, including diarrhoeal diseases (Green, 1985, 1986). Researchers even advocate association of traditional healers into the health care network and train them to manage diarrhoea with ORT, because health education efforts cannot have much impact if they are actively or passively opposed by traditional healers (Nations et al. 1984:Green 1985).

The study aims not only to investigate about perceptions of cross-section of people, but will also investigate about the actual management of diarrhoea in the homes. In that case, only focus group discussion will not be sufficient. Additionally, interviews and focus group discussions will complement each other. The study will ultimately prepare ground work for a trial of ORT for its effective and sustained use to help the government to design specific policies. The issues like designing an outreach structure, recruitment of volunteers and community health workers, or mobile medical teams, teaching mothers how to make ORS, giving containers to women to measure ingredients are not issues we are aiming to address now. Some of these issues are being considered in ICDDR,B extension projects in collaboration with the government. If at all, a few of them will be potential areas for us in our anticipated ORT trial phase later on.

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Reviewer 4 (BRAC) :

a) We do not emphasize on quantitative survey techniques, rather we plan focus group discussions and in-depth interviews with cross-sections of key- informants to be followed by retrospective diarrhoea case follow-ups in the households.

b) We searched for MS. Petra Osinski's survey but could not locate it in our library.

c) The proposed site of the study is in the comparison area of Matlab DSS, which provides population data, namely statistics on birth, death, marriage and migration. ICDDR,B has no intervention in this area while the national health services continue uninterrupted.

d) True, BRAC has done a survey on perceptions, but that is limited to only perceptions of mothers. This is a comparative study of perceptions among key informants-young mothers, mother-in-laws, heads of households and village practitioners and will also include their diarrhoea management in the homes. The methodology is different and the agenda is much broader.

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**Reviewer 5 (CDD programme, Govt. of Bangladesh);**

1. In the comparison area of DSS, Matlab, there is no intervention activities of ICDDR,B, and the national health services facilities are continuing as usual. Only registration of births, deaths, marriages and migrations are carried out by the ICDDR,B. Some recent results related to family planning behavior, perceptions about diarrhoea and ORT use in the comparison area are similar to the neighboring areas, outside of DSS. Utilization of the existing infrastructure is an additional benefit to conveniently plan this project in Matlab. Here many of the ICDDR,B's spacial studies have been implemented.

2. This protocol designed to have focus group discussions and in-depth interviews with cross-sections of key informants, followed by diarrhoeal episodes follow-ups in the community will help investigators better understand perceptions about diarrhoea and the gaps between knowledge of diarrhoea management and actual practices in the homes. Such a study will help develop ways to improve and maximize ORT use to prevent dehydration and ensure better child survival.

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