

Hygiene

**ICDDR, LIBRARY
DHAKA 1212**

INTERNATIONAL CENTRE FOR DIARRHOEAL DISEASE RESEARCH, BANGLADESH

MEMO

To : Chairman, Research Review Committee

July 11, 1990

From : K.M.A. Aziz *KMAA*
P.I. Maternal Education and Child Care

Subject : Status Report of Protocol No. 88-023 (Revised)

With reference to the above protocol I would like to submit to you its status report.

The field activities of the research have been completed in due time. Data coding, editing, entry, verification have been completed and are being processed for analysis.

Principal Investigator Dr. Diana R. Silimperi is working on them. The report is expected to be ready within about three months. The report on focus group discussion results has been submitted to the RRC.

The details of the Field Operation and Data Management are enclosed for your information.

Thanks.

cc: Acting Head, CHD
Project Director, UVP
Dr. Diana R. Silimperi

KMAA:sa



**ICDDR,B LIBRARY
DHAKA 1212**

Maternal Education and Child Care Study

Details of the Field Operation and Data Management

Field Operation

I. Focus Group Discussion

- (a) Rural area:
 - (1) Educated Mothers - 4 sessions
 - (2) Non-educated Mothers - 4 sessions
- (b) Urban area:
 - (1) Educated Mothers - 4 sessions
 - (2) Non-educated Mothers - 4 sessions

II. Questionnaire Interview

- (a) Rural area:
 - (1) Educated Mothers - 75
 - (2) Non-educated Mothers - 75
- (b) Urban area:
 - (1) Educated Mothers - 200
 - (2) Non-educated Mothers - 200

III. Observation before Questionnaire survey

- (a) Rural area:
 - (1) Educated - 10
 - (2) Non-educated - 10
- (b) Urban area:
 - (1) Educated - 20
 - (2) Non-educated - 20

IV. Observation of the Questionnaire survey (to acute episode of child diarrhoea)

- (a) Rural area:
 - (1) Educated - 10
 - (2) Non-educated - 10
- (b) Urban area:
 - (1) Educated - 20
 - (2) Non-educated - 20



**ICDDR,B LIBRARY
DHAKA 1212**

Data Cleaning

1. Focus Group Discussion has been completed:

- (a) Transmission
- (b) Translation
- (c) Report writing (submitted to RRC)

II. Questionnaire survey has been completed:

- (a) Coding
- (b) Data entry
- (c) Verification
- (d) Frequency distribution of all variables

III. Observation has been completed:

- (a) Editing
- (b) Data entry
- (c) Verification
- (d) Frequency Distribution of all variables



ETHICAL REVIEW COMMITTEE: PROTOCOL EXTENSION/TERMINATION FORM
RESEARCH REVIEW COMMITTEE:PRINCIPAL INVESTIGATOR : Dr. Diana R. Silimperi/Dr. KMA Aziz Protocol No: 88-023 (Revised)Title: "Maternal Education and Child Care: A study of mechanisms of impact
in Urban and Rural Areas"Starting dates of Protocol: Original planned: fall/winter '88 Actual: same

(1) Status of Protocol :

Was/will be completed as scheduled ☒ Will require an extension ☐

(2) Results achieved :

Publication(s) : Yes ☐ No ☐Manuscript(s) : Yes ☒ No ☐ *More to come*

If "Yes", please provide one copy each of papers, abstracts &/or manuscripts:

If no article or manuscript is available, please provide brief summary achieved:

Additional manuscript in process.(3) If an extension is needed, state length of extension required and reason extension
needed (e.g. 6 months, field work completed but analysis work outstanding).CALCULATE EXTENSION FROM ORIGINAL EXPECTED COMPLETION DATE.3 months/year Reasons: *PI will be spending next 3
months completing manuscripts while on leave to her
University. Field work completed, but analyses delayed due to Project transition
and training of new staff. PI will return in Sept. and*
Original expected completion date : _____

(4) State if you have added any methods or procedures not originally in the protocol:

(5) Any adverse effects in cases where the study involves human subjects:

(6) Additional data analysis/procedures not originally in the protocol is planned:

Yes ☐ No ☒

(7) If "Yes", give details :

(8) Name of Division involved CHAI

(9) Date on which plans for extension was approved in the Division: _____

(10) Additional budget needed: Yes ☐ No ☒

(11) If yes, give details:

(12) Signature of the Principal Investigator: Diana R. Silimperi Date: 21/6/90(13) Signature of Associate Director of the Division: [Signature] Date: 22/6/90

* If space is insufficient to a particular question, please use separate sheet.

ATTACHMENT FOR ETHICAL REVIEW COMMITTEE ANNUAL REPORT FORM AND FORM FOR
COMPLETED PROTOCOL

The certificate below is to be filled out and then signed by all Principal Investigators of the protocol and attached to the report form.

CERTIFICATE:

I hereby confirm that the study No. 88-023 (Revised) entitled "Maternal Education and Child Care: A study of mechanisms of impact in Urban and Rural Areas"

described in the report, was carried out in conformance with the recommendations for clinical trial and research in man, as set forth in the "Declaration of Helsinki". Before conduction of the study, the nature, the purpose and the risks of the research involved were explained to all subjects and their written/verbal consents were obtained.

Signature of (first)
Principal Investigator: _____
with date.

Signature of (second, if
any) Principal Investigator: _____
with date.

Signature of (third, if any)
Principal Investigator: _____
with date.

DEPT

FOCUS ON MATERNAL EDUCATION AND CHILD SURVIVAL:
THE ROLD OF FOCUS GROUPS AS A TOOL IN COMPARATIVE RESEARCH

Barbara Parker, Ph.D.
Diana Silimpéri, M.D.

SUMMARY

The Focus Group Discussion, though not an appropriate tool for hypothesis testing, can be of value in establishing differing patterns of belief and reported behavior that are characteristic of groups which share common traits, such as literacy or urban/rural residence. Sixteen Focus Group Discussions were held in the exploratory phase of a study of the relationship between maternal education and child care among urban and rural mothers, conducted by the Urban Volunteer Project of the International Centre for Diarrhoeal Diseases, Bangladesh. Four of these sessions included only urban educated (class 3-5) mothers, four only rural uneducated mothers, four included only rural educated mothers, and four only rural uneducated mothers. Responses of all four categories of mothers to questions related to child care, hygiene, nutrition, treatment-seeking and family decision-making were compared in order to identify between-category differences, if any, in health knowledge, beliefs and reported practices. Health knowledge was found to be unexpectedly high among all categories of mothers, in part due to the activities of NGOs; but this knowledge coexists with traditional beliefs and practices which could be health damaging. In addition to identifying common beliefs and perceptions, the discussion results acted as a preliminary assessment of established hypotheses by spotlighting

actual differences in response patterns between the categories under study. This information contributed to the revision of hypotheses to be tested subsequently by quantitative methods and to the construction of accurately focused survey instruments; and it has also provided a basis for preliminary thought on future health education interventions for uneducated mothers in the UVP target areas.

FOCUS ON MATERNAL EDUCATION AND CHILD SURVIVAL:
THE ROLE OF FOCUS GROUPS AS A TOOL IN COMPARATIVE RESEARCH

Barbara Parker, Ph.D.
Diana Silimperi, M.D.

Introduction

The Focus Group discussion session is a well known research tool of the business community which has recently become a popular technique with service professionals as well. It had its origin in the context of marketing research, where discussions are very closely "focused" upon consumers' responses to a specific product or to specific changes in a known product.

In nonprofit settings, such as social action or service programs, a close parallel is found in the use of Focus Groups for program evaluation [1]. While researchers in the business sector solicit consumer reactions to a commercial product, program evaluators ask consumers of services (such as family planning services) for their assessments of available services or of the need for additional services. The application of insights provided by this type of Focus Group session to program planning is not appreciably different from the use of Focus Groups by commercial enterprises in product design and promotion.

A few social science researchers have, however, utilized the Focus Group session to explore service-related issues at a more general and analytical level. For example, the opinions and attitudes underlying the ongoing fertility transition in Thailand

have been explored through the use of Focus Group sessions [2].

With this precedent in mind, a research team at the International Centre for Diarrhoeal Research's Urban Volunteer Project (UVP) decided to incorporate the Focus Group strategy into a multi-phased research project on the relationship between maternal education and child care under urban and rural conditions in Bangladesh. The following describes the UVP team's use of this methodology to explore characteristic patterns of response among educated and uneducated mothers to questions regarding health, childcare and family decision-making roles.

The Focus Group in Comparative Research: Many practitioners would argue that the Focus Group has a limited and well-defined range of uses, and that any other application distorts its purpose and asks more of the technique than it was designed to deliver. To the UVP research team, however, the discussion format appeared to offer a unique opportunity to explore the shared health beliefs, perceptions and stated norms of practice of a group of women who are similar with regard to certain chosen characteristics (in this case, educational background and rural or urban residence). This is not a significant departure from accepted usage of the Focus Group format. The question introduced by the UVP team, however, is this: Can Focus Group discussions be of value in identifying differences between the patterns of responses given by groups of differing composition to a single set

of questions?

Clearly, the Focus Group is not a useful tool for the testing of hypotheses. Not only is its sample size extremely small, but the unit of analysis itself is not easy to define, since individual opinions expressed within a single group are seldom uniform. On the other hand, close examination of the transcribed results of several group sessions whose members shared certain critical traits may reveal patterns or regularities of response which are not seen, or seldom seen, among groups whose members do not share this trait. To reveal these regularities, it is necessary to institute controls for extraneous variables by insuring that the focus group participants do not differ on characteristics (other than those under study) which could influence the results. To that end, the UVP team recruited only participants who were similar in age and SES, since these were thought to be the variables most likely to confound the relationship between maternal education and childcare. When controls such as these are instituted, then identification of key differences in response patterns between designated categories of respondents can provide a basis for the formulation of relevant hypotheses for subsequent testing by means of questionnaire surveys or other quantitative methods.

If a quantitative survey is planned, however, why should a research team go to the trouble of holding Focus Group discussions on the same set of topics? In the words of Forch- Lyon and Trost,

Working Draft

"One of the major problems is that a quantitative survey is a highly structured situation in which the respondent has to adapt his responses to previously determined alternatives" [3]. In an open discussion, on the other hand, additional issues, questions and points of view, some of which may be previously unknown to the researchers but of great significance in determining the behavior of respondents with respect to the research topic, are free to emerge. Nevertheless, the Focus Group discussion is not equal to a lengthy period of participant observation for accurately charting the attitudes, beliefs, and behaviors of members of a particular community. When a specific community is the target of research, the Focus Group discussion questions should, therefore, be based whenever possible upon previous studies which utilized this methodology, particularly if members of the research team do not share a common culture and language with the respondents.

As a tool in comparative research, then, the Focus Group should not stand alone. It will yield best results when based on a familiarity with anthropological information on the target population; and its insights should be verified by a subsequent quantitative investigation. The Focus Groups for the UVP-Maternal Education Project were designed with both of these caveats in mind. The discussion question guidelines for the UVP Focus Groups drew heavily upon previous anthropological research by one of the Primary Investigators on the project. The ultimate purpose of the

discussions, as the following will describe, was to check and add to a set of hypotheses which would be tested by means of a sample survey and observation schedule.

Maternal Education and Child Survival: More than a decade of cross-cultural research has established a strong statistical association between maternal education and enhanced child survival [6-27]. This association has been documented in both developed and developing countries, including Bangladesh [10-12, 14-15, 20-21]. Little of this great body of evidence, however, is useful for the design of extra-educational interventions to promote child survival, since most studies have focused upon assessment of the role of confounding variables, such as socio-economic differentials and demographic factors (birth spacing, birth order, maternal age, etc.), in the maternal education-child survival relationship.

Although existing evidence has refuted, at least in part, the claim that this relationship is explained by one or more of these confounding variables, the actual mechanisms through which education impacts survivorship have yet to be identified. The fact that a stronger relationship is found in childhood than in infancy [22-25] suggests that, while the immunological properties of breastmilk may protect the infants of both the educated and uneducated, the survival of children who are at or beyond weaning age depends to a greater extent on the quality and quantity of care they receive.

The evidence, however, has not revealed precisely how maternal education influences the level and quality of child care. It is not known exactly which of the educated mother's beliefs or behaviors fosters improved child survival. The most obvious possibility is that knowledge derived from the curricula of formal education about nutrition, disease prevention, and allopathic medical services, is the agent responsible. The results of an anthropological study [20] in Bangladesh, however, offer evidence that adults who have had primary schooling generally do not retain concrete health knowledge about disease-causing factors into the childbearing years. Indeed, whether or not Bangladeshi girls emerge from school with any understanding of nutrition and hygiene is unknown, since the public school curriculum has not been assessed from this perspective.

The health knowledge differential hypothesis has not been systematically investigated up to this point. If, however, greater health knowledge is not displayed by mothers who have had primary education, then some educational effect(s) other than formal knowledge must contribute to the comparatively better survival rates of their children. For example, education may have a number of indirect social consequences for women, some of which affect her ability or propensity to care for her child. Education gives women new reference groups, a wider social network, and, potentially, a greater awareness of the modern world and its institutions and

technologies.. On the other hand, it is hypothesized here that exposure to an information-rich urban environment could mimic these effects of education.

Caldwell, et. al. (6-9) have proposed that educated mothers have greater autonomy within the family as a result of the prestige attached to education, and that in consequence, they may play a more direct and autonomous role in decision-making with regard to their child's diet and medical regimen. Autonomous decision-making may also allow the educated mother to respond to episodes of illness during the critical period immediately following disease onset without obtaining approval from other family members. What is more, the educated mother may be more comfortable seeking treatment at impersonal medical institutions by virtue of their contact with relatively impersonal educational institutions in their own childhoods. Like the health knowledge hypothesis, however, these social impact hypotheses have not been systematically tested.

Given the complex nature of the issues involved, investigation of the maternal education-child survival relationship calls for a research strategy which combines several methodologies. Consequently, the UVP study reported here is part of a multi-method examination of this problem. The Urban Volunteer Project of the International Centre for Diarrhoeal Diseases Research, Bangladesh, is a community-based preventive health

education and health service delivery system aimed at improving child survival among the urban slum (basti) population of Bangladesh. In addition to service delivery, the staff of UVP conducts research into the causes and prevention of child mortality, particularly diarrhoea-related mortality, in conformity to the chartered goals of the ICDDR,B. The ultimate objective of the maternal education research project will be to design and test interventions, based on what is learned in the study, which can enhance the survival of children of uneducated mothers among UVP's target population.

The Focus Group portion of this research was originally designed as an exploratory precursor to, and a descriptive basis for, all other study activities. Due to the requirements of the scientific and ethical review processes at ICDDR,B, however, it was finally necessary to submit a tentative survey questionnaire and observation schedule to the internal review committees, along with the Focus Group Discussion Guidelines, in order to obtain clearance to proceed with any aspect of the research. It was understood by the committee members, however, that the quantitative instruments would be revised and augmented in response to insights gained from the Focus Groups. These revisions and additions, and the ultimate contribution of the Focus Group results to the quantitative instruments actually used, are reviewed in Summary and Conclusions, below.

Methodology

Selection and Recruitment: Sixteen groups in total were held: four discussions among urban educated mothers, four among urban uneducated, four among rural educated mothers and four among the rural uneducated. The goal of the discussions was to assess, at a very general level, the health knowledge, health beliefs, reported sanitation and hygiene practices, family decision-making patterns, and attitudes toward children, of educated and uneducated mothers. Because the mobility of Bangladeshi women is very limited, the venues chosen for the sessions were the homes of community women. In the urban areas these homes were generally those of Urban Volunteers; while in the rural areas, well-respected families with larger than average and centrally located homes were recruited as hosts to the sessions.

Participants were chosen from census records held at ICDDR,B. The urban communities had been selected from among UVP's "research clusters," which receive continual research surveillance in connection with the program's inquiry into the factors which influence the prevalence of diarrhoeal disease in these representative basti areas of Dhaka. Because UVP's household records include data on women's educational levels and family socio-economic status, it was possible to select participants at random from computerized files after controlling for SES differences within the basti. In the rural area, the census

records of control villages from a research project recently been completed by one of the Primary Investigators were utilized. Although the working presence of UVP and other NGOs in these areas may introduce a bias, NGO presence is common in both rural and, especially, urban Bangladesh. The study was not intended to be a formal evaluation of the impact of NGOs, but it served inadvertently as an indirect assessment of the ability of uneducated mothers to profit from the activities of these organizations (see Results, below).

Only women aged 18-35 were chosen. By excluding the youngest and oldest mothers, the team sought to mitigate age bias related to changes in women's educational access in recent years. Mothers with secondary education were also eliminated because they are nearly always members of atypically prosperous families. In both the rural and urban areas, reported educational levels of participants were checked by means of a simple literacy test.

Results

General Observations: Responses to questions regarding health and treatment-seeking did not indicate striking differences between the groups of educated and uneducated. This was because the health knowledge of members of all groups was higher than expected. After it became apparent in the first few sessions that this was to be the case, the discussion facilitator was instructed to end the sessions by asking the mothers where they had learned

Working Draft

so much about health. Although a few mothers said that this information was common knowledge in their village, or that it had been learned from the radio or from government health visitors, most said they had learned about health from a non-governmental organization (NGO). In Dhaka, the Urban Volunteers themselves were most often named as the source, although Radda Barnen was also mentioned. In the rural area, CARE was said to have been the primary source of health information. of unclear instructions, or

It is clear that, from the viewpoint of the research question, these data were "biased" by the presence of intensive health education efforts on the part of various NGO's in the target areas. Given the known coverage, however, it may be difficult to find an area of Bangladesh which has not seen some program of this kind, particularly in and near the urban areas.

In fact, the presence of these interventions constituted an informal test of the hypothesis that the educated and uneducated may differ in their receptiveness to this information, or their ability to retain and use it.

A second observation that was striking from the first was a difference in the capacity or willingness of the two categories of mothers to assert themselves verbally by offering opinions in response to the questions. This difference was particularly noticeable in the early portion of the sessions. At first, it appeared that the uneducated mothers did not understand the

questions as easily as did the educated; but the fact that they answered with greater ease as the session progressed suggests that shyness and inhibition may have been their principle problem.

Inhibition could have negative significance for child health and recovery from illness if it impedes the uneducated mother's ability to interact assertively with medical personnel on behalf of a sick child. An shy mother may be hesitant to request information, to ask for the repetition of unclear instructions, or to insist that prompt attention be given to their child's problem by health care providers (6). She may also harbor lower expectations concerning her own ability to derive benefit from the interaction; and expectations are known to influence the outcome of any human encounter. What is more, it is evident that government and other health facilities are underutilized, particularly in urban areas. Mothers may be unaware of the existence of these facilities, or they may simply be fearful of approaching them. In either case, it is suggested that timidity and inhibition are among the invisible barriers to achievement good health care for low-income families.

Qualities of a Good Mother: The sessions opened with the question: "What makes a good mother?" In every session, mothers mentioned keeping the child and/or his food and clothing clean as qualities of a good mother. Similarly, providing for the child's education and feeding him properly were mentioned in virtually

Working Draft

every session as desirable. The main difference between the responses of the educated and uneducated mothers, if any, was found to be in the level of specificity and detail in their answers. For example:

Uneducated mothers: "A good mother is one whose child keeps well"

"A good mother should look after her baby well, keep him clean and maintain the family well."

Educated mothers: "I will be a good mother when I keep my baby clean, give him clean and pure food which I keep well-covered; keep the bed, clothes and other things clean, and wash him every day to protect him from illness."

"It is good for the child if he is kept clean, good, for him if he is given education, and it is best for the child if he is fed vegetables."

The greater specificity of the educated mothers' answers may have no significance other than as an indicator of greater verbal assertiveness and articulateness. On the other hand, it may signal that the educated mother has a greater ability to conceptualize the components of good child care clearly. If so, she may be better able to plan and carry out a systematic child-care agenda; while the uneducated mother may react in an ad hoc fashion to the child's needs and demands as they arise.

The less detailed answers of the uneducated is not, however, a sign of lower commitment to child care or a less-developed sense of personal responsibility with respect to the health of the child. On the contrary, uneducated mothers located responsibility with the self excessively; that is, even in domains over which they did not actually have control. For example, uneducated mothers often offered answers such as the following:

Uneducated mothers: "If the baby falls ill, the mother is no good." (urban) mother: "The baby is good."

"Children die of diseases caused by carelessness of the mother."

Uneducated mothers, then, often assume personal guilt or blame for child death or illness in a way that is diffuse, unspecific and total. By contrast, the educated mothers also may attribute responsibility for child illness to the carelessness of the mother, but are less likely to do so without mentioning neglect of specific child-care procedures (such as failure to get immunizations or maintain sanitation) as the factor precipitating illness.

Again, this may merely indicate verbal inhibitedness among the uneducated. On the other hand, it may indicate a more traditional view of womanhood and of disease causation. According to observers such as Therese Blanchet and Mahmuda Islam, traditional Bangladeshi villages, illness or death of nursing

children is often thought to be caused by the mother's lack of care in preserving personal modesty and family honor. By exposing her hair or person in a careless or provocative manner, it is thought that the mother invites attack by demons (bhut or jjin) and that the harm which issues from such attacks is passed to the child through breastmilk. This belief is not entirely absent among the educated, however, as one educated mother remarked, in response to a question on disease causation:

Educated mother: "The baby gets cold if the mother is attacked."
(rural area)

These and similar comments suggest that a hypothesis which may be worthy of investigation, at least in Bangladesh, is that uneducated mothers may attempt to guard their children's health primarily by attending to propriety and to their own personal conduct, while the educated may focus more readily upon improving and maintaining specific, detailed childcare regimens. It should be noted, however, that traditional beliefs were not found to be entirely absent among the rural educated, and that rural/urban residence may be a more significant predictor of traditional beliefs about disease causation than education itself. The UVP team will examine this hypothesis during the analysis of survey data. The survey questionnaire includes several open-ended questions on the etiology of children's illnesses, so statistical comparisons of the frequency of supernatural or personal moral

conduct responses given by each category (educated, uneducated, rural and urban) of mother will be possible.

Family Decision-Making: A clear pattern of response emerged here: the educated mothers respond to the question "who decides when to take the sick child for medical treatment?" by naming the child's father as the decision-maker most often (9 mentions). In the remainder of (educated) cases, as many mothers (5 each) named in-laws as named the mother herself as the primary decision-maker in such cases. The most frequent response among the uneducated mothers (8 mentions) was that the mother makes this decision. In-laws were mentioned only twice among the uneducated mothers, and fathers three times. This result supports findings from a related anthropological project in the Chandpur and Dhaka areas (Zeitlyn and Islam 1989), and if it is confirmed by the questionnaire, offers a challenge to Caldwell's hypothesis. Zeitlyn and Islam consider several possible explanations. Among them are the following:

1) Educated women are more aware of the response that is publically acceptable and so they are giving the socially "correct" answer. If so, then actual decision-making may or may not reflect this reported pattern. ~~Uneducated mothers' responses~~ may be more frank and, hence, more accurately descriptive of everyday decision-making in the families of both educated and uneducated women. The observation component of the UVP protocol

Working Draft

will examine this possibility, as it includes observation of illness episodes.

2) Differing responses may actually reflect differences in family patterns of decision-making between the two groups. The fact that women's in-laws are named more often as decision-makers among the educated supports the idea that joint or extended family residence patterns may be more common among the educated. If educated women live in extended families more often, then patriarchal values and decision-making patterns may prevail. Extended family residence tends to be associated with higher SES, however, and this factor was controlled in the discussion group selection process. The impact of family residence patterns on child care and decision-making is a complex question which merits quantitative investigation.

Diets of Boy and Girl Children: Discussants were asked whether boy and girl children need and get the same amount of food. Most respondents answered that boy and girl children need and get the same quantities of food, but a few dissenting voices were heard among both the educated and uneducated. Three educated mothers mentioned that, regardless of need, boy children get more food, partly because they can go "outside" to find it. Only one educated mother said girl children need or get more, while four uneducated mothers named the girl child, and only two named the boy child, as the child which should get more food. It should be

Working Draft

reiterated, however, that most mothers in all groups felt food distribution should be more or less equal by sex. Again, these statements may or may not reflect actual behavior. They are of interest, however, in that they seem to contradict a popular hypothesis: that the children of educated mothers are more likely to survive because it is the uneducated who are more likely to neglect girl children. Because existing information supports the contention that sex bias is a common characteristic of feeding patterns in Bangladeshi homes (see, for example, Brown 1982), however, there is reason to suspect that the self-report of the Focus Group mothers is less than entirely accurate. If so, then this is a case in which the public nature of the discussion format may inhibit accurate self-disclosure. On the other hand, if public morality renders neglect of girl children shameful among even the uneducated, who might be expected to have less awareness of their formal legal and religious obligations, then this is an interesting finding in itself, and merits investigation into the source (in public discourse, in school, or in NGO or government messages) of this value. Analysis of the observation schedule's feeding data will therefore include an examination of food distribution by gender, and the questionnaire will investigate sources of information and opinions cited by mothers as relevant to their decisions on nutrition and feeding of children.

Working Draft

Breastfeeding: Among both the educated and the uneducated mothers, there was a strong agreement that breast is best. Only one uneducated mother disagreed, saying that the breast and bottle should be alternated, since continuous breastfeeding can harm the mother's health. In both the educated and uneducated groups, however, complaints were heard about the loss or drying up of breastmilk. It is possible that the adequacy of maternal diets might be a factor which is associated both with education and with the ability to mother, including actual sufficiency or quality of breastmilk production.

Household Hygiene: Both educated and uneducated mothers in both rural and urban areas prefer tubewell or, in the urban case, tapwater to other water sources. Only one mother (rural uneducated) said that river water was better than tubewell water, since it is constantly flowing and never stagnant. Other members of her discussion group disagreed. Similarly, both groups said that they keep food and water well covered, that they do not serve cooked food that has been kept longer than a few hours or, in cool weather, overnight. These statements are consistent with information mothers have received from UVP and other programs.

It is clear that health education efforts (government and NGO) have been effective in disseminating the hygiene message, although casual observation does not always support the claim that food is always fresh and well-covered in actual daily life. Hygienic

practices will therefore be systematically documented in the observation households.

Disease Classification and Domestic Handling of Illness: When asked "what causes children to die?," all groups mentioned western disease categories, especially diarrhoea, tetanus, "fever", and measles. Except for the absence of acute respiratory infection (although "fever" may include some types of ARI), this list is a reasonably accurate summary of the common killers of Bangladeshi children.

Immunization was mentioned as a preventative by all groups except one uneducated rural group; and treatment with ORS was universally mentioned as an appropriate domestic reaction to diarrhoeal disease. All groups in all categories mentioned the importance of consulting the doctor or hospital in severe or stubborn cases. However, in one educated urban, two uneducated rural, and one uneducated urban groups, supernatural causes of disease (such as evil spirit) were also mentioned among the factors leading to child death. What is more, mothers in one educated group cited the mother's breastmilk as a possible contributing factor (when she is "attacked," presumably by evil spirits or winds).

The traditional disease-causing agent mentioned most often was dietary imbalance between hot and cold foods. This was mentioned in every group, both educated and uneducated, and its

Working Draft

potential impact on children's recovery from illness could be significant. In all groups, domestic reactions to the onset of disease in children were described as including dietary restrictions based on the hot/cold properties of foods and the corresponding properties of diseases. In the case of fever, rice was withheld in the majority of educated and uneducated groups (although some said bread or wheat may be substituted). In the case of diarrhoea, the foods most commonly withheld were said to be milk, meat, fish, eggs and "fatty" foods. Even if mothers are indeed treating diarrhoea with ORS and by visiting doctors as they claim, the implications of this system of dietary restrictions for the health of a child with frequent diarrhoea are obvious. On the other hand, mothers exposed to health messages by government and NGOs may compartmentalize their beliefs and behaviors in ways that insulate one from the other. This, then, is another issue which calls for investigation through observation and survey methods.

In sum, this set of questions pointed to few clear differences between educated and uneducated mothers. Although the uneducated mothers were slightly more likely to name supernatural causes, ~~this was true only in the rural area, and~~ hence this tendency may be distributed by urban/rural residence as much as by educational status. In any case, supernatural beliefs did not preclude giving ORS or seeking allopathic medical

help in emergencies. Among both groups, a surprising familiarity with western medicine coexisted with some traditional beliefs and practices, especially restriction of the sick child's diet. Bangladeshis, therefore, are apparently able to integrate traditional and modern explanations and practices in some sort of system which is as yet unclear. A more detailed investigation, such as a related study of rural health seeking behavior which is now in the planning stages at ICDDR,B, of actual patterns of resort -- and how these break down by educational status -- may be the sole means of determining whether this is an important variable with respect to maternal education.

Health Seeking Behavior: In no group did participants say there is a medical facility in their immediate area, although two rural groups mentioned that their village has a traditional Kobiraj or Ayurvedic healer. The immediate area, however was not defined in the discussions, either in terms of actual distance or social distance. In Bangladesh, it is probable that mothers will not consider any facility to be nearby if they must abandon purdah (by leaving their homestead and immediate neighborhood) to visit it. All mothers except one, however, said they would dispense with purdah and travel with their child to a medical clinic or hospital in case of a severe illness. The one exception was a mother who said that, because she observes purdah, she would call the doctor (by necessity, an Ayurved) in instead of going out.

Others in her group disagreed.

Attitudes Toward Children: All mothers in all groups said that few children were better than many, and all mentioned the difficulty of providing for a large family among their reasons for believing this. Other reasons included the importance of preserving the health of the mother (this was mentioned in four of the educated and two of the uneducated groups).

The discussion schedule included a series of questions about the age at which children begin to help the family, and when they can begin to earn income. Overall, educated mothers tend to name slightly older ages as appropriate for poor children to begin either helping at home or earning money. Among the uneducated, ages 4-6 (especially for girls) were commonly named as the time when poor children begin to help, whereas ages above 6 were more common among the educated. Earning money was said to begin at around ages 6-10 by the uneducated, while ages below ten were rarely mentioned by the educated.

This discrepancy probably reflects the fact that educated mothers expect their own children to stay in school longer; but on the other hand, answers to other discussion questions revealed that both educated and uneducated mothers have strong educational ambitions for their children and see little hope for them if these are not realized. Another possible explanation is that uneducated mothers are more likely to view the child as a resource for the

improvement of the economic well-being of the larger family, while the educated may focus upon the child-as-individual and his/her own needs and requirements. This hypothesis is not supported, however, by the fact that both educated and uneducated mothers said they prefer fewer children in order to provide for them better. Nevertheless, the results of discussion on child labor provide one instance in which there was a noticeable difference between the two categories of mother. It is therefore a variable which merits further study.

Discussion

Although both educated and uneducated mothers themselves said they believe educated women to be more knowledgeable about illness prevention, this belief was not supported by the results of the discussion groups. Instead of health knowledge differentials, the Focus Group results suggest that some of the issues summarized below may yield more significant results in the follow-up quantitative analysis. The following also describes some of the modifications introduced into EVP's quantitative data collection instruments and analysis plan in order to better examine these issues:

1. Educated mothers may be more articulate and assertive in the presence of high-status strangers. This could assist them in dealing with medical workers, pharmacists, etc. Education may also raise their expectations in terms of

Working Draft

benefits they can command from these sources. Questions have been added to the questionnaire which will assess assertiveness in terms of willingness to leave the homestead for various purposes; and the observation schedule will include measures of assertiveness exhibited by mothers in each category during a child illness episode.

2. Dietary intake of the mother, and hence their ability to provide adequate mothering, could differ by education. Questions on the nutritional needs of nursing mothers have been added to test whether educated mothers have a higher awareness of their own basic requirements.
3. Family residential patterns could vary by educational or urban status in a way that influences decision-making, and perhaps childcare procedures and participation too. This link will be examined during the analysis of the questionnaire data by identifying possible correlations between 1) responses to questions about decision-making roles in the family and 2) the number of persons eating at the hearths of respondents in all four categories.
4. Although modern medical and traditional (especially dietary) understandings of disease etiology and domestic treatment requirements appear to coexist among both the educated and uneducated, rural uneducated mothers may be more likely to mention supernatural explanations and

Working Draft

cures. A multivariate analysis will assess how patterns of resort to treatment sources vary by education and/or by urban/rural residence.

5. Educated mothers were found to differ from the uneducated in terms of the age at which children were expected to begin helping and contributing earnings to the family. This suggests a difference in attitudes toward role requirements in the parent/child relationship which could influence child diet and health care. The questionnaire will examine this through questions on desired family size and motives for having "many" or "few" children.
5. Interestingly enough, when asked where they had learned about health, none of the educated mothers named their school experience as an information source. UVP and other NGO programs were mentioned most often. The questionnaire will examine mothers sources' of health information in each area: hygiene, diet, etc.

~~In summary, the Focus Group sessions were found to be a~~
useful preliminary to a subsequent quantitative survey and analysis on several counts. First, the unexpected familiarity with basic health and hygiene which was revealed in the sessions enabled the questionnaire to be pointed toward actual, rather than hypothesized, levels of health knowledge. Second, the ability of

Working Draft

the Focus Group format to spotlight group norms, alerted the research team to areas in which norms may conflict with practice, so that the project's observation schedule could be strengthened to emphasize these areas. Finally, the sessions results pinpointed some expressed between-group differences in attitudes and practices for subsequent quantitative confirmation. Equally significant, however, was the absence of certain between-group differences which were expected on the basis of previous work on the maternal education/child survival question.

In addition, the Focus Group results indicate that nonformal education, such as through NGO and government health messages, can have success, at least in terms of disseminating information. Whether this information is put to practice is an issue to be clarified in later phases of the project. The discussions have also revealed gaps in knowledge which these organizations should address with new health messages. For example, dietary restrictions as a response to illness should be discouraged, and the importance of improving maternal nutrition should be emphasized. The UVP discussions, then, have generated information that is useful for directing subsequent quantitative research, but may also be applied directly to the design of health education messages.

FOCUS ON MATERNAL EDUCATION AND CHILD SURVIVAL:
THE ROLD OF FOCUS GROUPS AS A TOOL IN COMPARATIVE RESEARCH

Barbara Parker, Ph.D.
Diana Silimperi, M.D.

SUMMARY

The Focus Group Discussion, though not an appropriate tool for hypothesis testing, can be of value in establishing differing patterns of belief and reported behavior that are characteristic of groups which share common traits, such as literacy or urban/rural residence. Sixteen Focus Group Discussions were held in the exploratory phase of a study of the relationship between maternal education and child care among urban and rural mothers, conducted by the Urban Volunteer Project of the International Centre for Diarrhoeal Diseases, Bangladesh. Four of these sessions included only urban educated (class 3-5) mothers, four only rural uneducated mothers, four included only rural educated mothers, and four only rural uneducated mothers. Responses of all four categories of mothers to questions related to child care, hygiene, nutrition, treatment-seeking and family decision-making were compared in order to identify between-category differences, if any, in health knowledge, beliefs and reported practices. Health knowledge was found to be unexpectedly high among all categories of mothers, in part due to the activities of NGOs; but this knowledge coexists with traditional beliefs and practices which could be health damaging. In addition to identifying common beliefs and perceptions, the discussion results acted as a preliminary assessment of established hypotheses by spotlighting

actual differences in response patterns between the categories under study. This information contributed to the revision of hypotheses to be tested subsequently by quantitative methods and to the construction of accurately focused survey instruments; and it has also provided a basis for preliminary thought on future health education interventions for uneducated mothers in the UVP target areas.

Key Words: MATERNAL EDUCATION, CHILDCARE, HEALTH BELIEFS,
FOCUS GROUP DISCUSSIONS, QUALITATIVE METHODOLOGIES,
BANGLADESH

REFERENCES

1. Krueger, Richard A. Focus Groups: A Practical Guide for Applied Research. Sage Publications, Newberry Park, CA 1988.
2. Knodel, John, Napaporn Havanon and Anthony Pramualratana. Fertility Transition in Thailand: A Qualitative Analysis. Population and Development Review. 10,2, 297-328, 1984.
3. Folch-Lyon, Evelyn and John Trost. Conducting Focus Group Sessions. Studies in Family Planning. 12,12, 443-449. 1981.
4. Stycos, J Mayrone. A Critique of Focus Group and Survey Research: The Machismo Case. Studies in Family Planning. 12,12, 450-456. 1981.
5. Amin, Ruhul. Infant and Child Mortality in Bangladesh. Journal of Biosocial Sciences. 20,1, 59-65. 1988.
6. Caldwell, John. Education as a Factor in Mortality Decline. Population Studies. 33,3 395-413. 1979.
7. Caldwell, John, and McDonald, Peter. Influence of Maternal Education on Infant and Child Mortality: Levels and Causes. Health Policy and Education. 2, 251-267. 1982.
8. Caldwell, John C. and Pat Caldwell. Education and Literacy as Factors in Health. in Good Health at Low Cost. S.C. Halstead, J.A. Walsh and K.S. Warren, eds. Rockefeller Foundation, New York, 1985.
9. Caldwell, John. Routes to Low Mortality in Poor Countries. Population and Development Review. 12,2, 171-220. 1986
10. Chen, L.C., Rahman, M., Sarder, A.M. Epidemiology and Causes of Death Among Children in a Rural Area of Bangladesh. International Journal of Epidemiology. 9,1, 25-33. 1980.
11. Chowdhury, A. Infant Death, Determinants and Dilemmas. ICDDR,B Scientific Report #46. 1981.
12. Chowdhury, A.K.M.A. Education and Infant Survival in Rural Bangladesh. Health Policy and Education. 2, 369-374. 1982.
13. Cochrane, Suzan H., Donald J. O'Hara and Joanne Leslie. The Effects of Education on Health. World Bank Staff Working Paper no. 405. Washington, D.C. 1980.

14. D'Souza, S. and A. Bhuiya: Mortality Differentials in Rural Bangladesh. Population and Development Review. 8,4. 753-770. 1982.
15. D'Souza, S. Mortality Case Study in Matlab, Bangladesh. and UN/WHO Third Project Collaboration Meeting on Case Studies of Determinants of Mortality Change and Differentials. Geneva. 1982.
16. Farah, A.A. and S. Preston. Child Mortality Differentials in Sudan. Population and Development Review. 8,2. 365-382. 1982.
17. Frenzen, P. and D. Hogan. The Impact of Class, Education and Health on Infant Mortality in a Developing Society. Demography 19, 3 391-408. 1984.
18. Levine, R.A. Influences of Women's Schooling on Maternal Behavior in the Third World. Comparative Education Review. 24, 2 (pt. 2). S78-S105.
19. Levine, Robert A., Sarah Levine, Amy Richman and Clara Sutherland Correa. Schooling and Maternal Behaviour in a Mexican City: The Effects on Fertility and Child Survival. The Population Council. Fertility Determinants Research Notes. 16. 1987.
20. Lindenbaum, Shirley, Marisha Chakraborty, and Mohammed Elieas. The Influence of Maternal Education on Infant and Child Mortality in Bangladesh. International Centre for Diarrhoeal Disease Research, Bangladesh. 1985.
21. Majumder, Abdul K. Maternal Factors in Infant and Child Mortality in Bangladesh. Journal of Biosocial Science. 20,1, 89-98. 1988.
22. Mback'e, Cheikh and Etienne van de Walle. Socio-Economic Factors and Access to Health Services as Determinants of Child Mortality. Paper presented at IUSSP Seminar on Mortality and Society in Sub-Saharan Africa, Yaounde. 1987.
23. Palloni, A. Mortality in Latin America: Emerging Patterns. Population and Development Review. 7,4 623-649. 1981.
24. Rutstein, S.O. Socio-Economic Differentials in Infant and Child Mortality. W.F.S. Comparative Studies. (Preliminary Tables). 1984
25. Srinivasan, K., T. Kanitkar, Vazir Ahmed and L. Saraagi. Report on the Baseline Survey on Fertility, Mortality and Related Factors in Orissa. International Institute for Populations Sciences. Bombay. 1985.

26. United Nations. Socio-Economic Differentials in Child Mortality in Developing Countries. Department of Social and Economic Affairs, New York. 1985.
27. Ware, Helen. Effects of Maternal Education, Women's Roles and Child Care on Child Mortality. Population and Development Review. 10 (Supplement). 191-124. 1984.
28. Islam, Mahmuda. Women, Health and Culture. Women for Women. Dhaka, Bangladesh. 1985.
29. Blanchet, Therese. Women, Pollution and Marginality: Meanings and Rituals of Birth in Rural Bangladesh. University Press, Ltd. Dhaka, Bangladesh. 1984.
30. Zeitlyn, Sushila and Farzana Islam. Patterns of Child Feeding and Health Seeking Behavior in Bangladesh: Two Case Studies. Unpublished Manuscript. 1989.
31. Brown, K.H.,
Consumption of Foods and Nutrients by Weanlings in Rural Bangladesh. American Journal of Clinical Nutrition. 36, 879-889. 1982.



INTERNATIONAL CENTRE FOR
DIARRHOEAL DISEASE
RESEARCH, BANGLADESH

SECOND REMINDER

Memorandum

TO : Dr. Diana R. Silimperi, ~~CHD~~ **CHD** ~~CHD~~ **CHD**

FROM : Chairman ~~CHD~~ **CHD**
Ethical/Research Review Committee

DATE: June 17, 1990

SUBJECT : COMPLETION REPORT FOR ERC/RRC PROTOCOL.

Protocol No: 88-023 (Revised)

Title : "Maternal Education and Child Care: A study of
mechanisms of impact in Urban and Rural Areas"

Your protocol, noted above, was approved on December 04, 1988 by the
Ethical/Research Review Committee. Our records show that your protocol
is/was due to be completed on June 30, 1990 (second extended period)

We need a report for information of the Ethical/Research Review Committee
along with the date the project was actually completed. If you want to
continue your work, a fresh approval by the Ethical/Research Review
Committee will be required. In that case you are to apply for an extension
through the Associate Director-in-charge of the Division,

Please include the following in your protocol review :-

- (a) Date study started.
- (b) Date study completed.
- (c) Results achieved.
- (d) Any adverse effect in cases where the study involves human subjects.

Please submit the report to me within 15 (fifteen) days from the date of
issue of this Memo.

Note: A report form along with a form of certificate are attached for
your convenience.

CC: Dr. K.M.A. Aziz, Acting Head, CHD
Director

ATTACHMENT: TWO



INTERNATIONAL CENTRE FOR
DIARRHOEAL DISEASE
RESEARCH, BANGLADESH

Memorandum

TO

Dr. Diana R. Silimperi, CHD

FROM

~~Chairman~~ Deen S
Ethical/Research Review Committee

June 03, 1990

SUBJECT

COMPLETION REPORT FOR ERC/RRC PROTOCOL

DATE:

66-023 (Revised)

Protocol No:

Title: "Maternal Education and Child Care: A study of
mechanisms of impact in Urban and Rural Areas".

Your protocol, noted above, was approved on December 04, 1988 by the
Ethical/Research Review Committee. ~~Your 1990 protocol extended period~~
is/was due to be completed on June 30, 1990.

We need a report for information of the Ethical/Research Review Committee
along with the date the project was actually completed. If you want to
continue your work, a fresh approval by the Ethical/Research Review
Committee will be required. In that case you are to apply for an extension
through the Associate Director-in-charge of the Division,

Please include the following in your protocol review :-

- (a) Date study started.
- (b) Date study completed.
- (c) Results achieved.
- (d) Any adverse effect in cases where the study involves human subjects.

Please submit the report to me within 15(fifteen) days from the date of
issue of this Memo.

Note: A report form along with a form of certificate are attached for
your convenience.

K.M.A. Aziz, Acting Head, CHD

CC: Dr. _____, Associate Director-in-charge
Director

ATTACHMENT: TWO