

ETHICAL REVIEW COMMITTEE, ICDDR, B.

Principal Investigator Najma Rizvi / Trainee Investigator (if any) _____

Application No B2-039(D) / Supporting Agency (if Non-ICDDR, B) _____

Title of Study Behavioral defects / Project status: (limited study)
Determining nutritional status of 4 children
(X) New Study
() Continuation with change
() No change (do not fill out rest of form)

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

- Source of Population:
- (a) Ill subjects Yes No
 - (b) Non-ill subjects Yes No
 - (c) Minors or persons under guardianship Yes No
- Does 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
- Does the study involve:
- (a) Use of records, (hospital, medical, death, birth or other) Yes No
 - (b) Use of fetal tissue or abortus Yes No
 - (c) Use of organs or body fluids Yes No
- Are subjects clearly informed about:
- (a) Nature and purposes of study Yes No
 - (b) Procedures to be followed including alternatives used Yes No
 - (c) Physical risks Yes No
 - (d) Sensitive questions Yes No
 - (e) Benefits to be derived Yes No
 - (f) Right to refuse to participate or to withdraw from study Yes No
 - (g) Confidential handling of data Yes No
 - (h) 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 Committee:
 - 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 Cttee. for review.

See to obtain approval of the Ethical Review Committee for any changes affecting the rights and welfare of subjects before making such change.

Najma Rizvi
Principal Investigator

Trainee

REF

WS 115.JB2

R6276

1982

ABSTRACT SUMMARY FOR ERC

The purpose of the study is to identify behavioral practices which have an impact on the nutritional status of young children of 6 months to 36 months.

1. The subject population would include children 6 mo.-36 mo. group. Since the children in this age group suffer from malnutrition, we feel it is important to know the behavioral practices related to child rearing.
2. The methods of research to be used include informal interviewing careful observation of the child rearing practices and anthropometry for selecting the sample children. The methods to be used do not pose any potential risks.
3. Not applicable.
4. The confidentiality of the data collected will be maintained at all times. The information will not be given out to any one. The anonymity of the sample households will be assured through the use of code numbers for the household and the study children.
5. Informed consent will be obtained from the parent or guardian of the children. The consent form in Bangla and English are enclosed. Consent will be obtained at the household

6. The interview will take place in an informal setting in the children's own homes. At no time, any pressure will be given to the family to answer any question.
7. The identification of positive and negative behavioral practices related to feeding will aid in the development of a nutrition education program.
8. The research will not require any hospital records, organs or tissues.

The study does not involve any sensitive questions, visitation of the households by myself or my co-workers may be considered to be an invasion of privacy. The interviewing will be informal, care will be taken not to disturb the routine of the household.

82-039(P)
23/8/82

RESEARCH PROTOCOL - SECTION I

Title : Behavioral Aspects in Determining
Nutritional Status of Children.
Principal Investigator : Dr. Najma Rizvi
Starting Date : November 1982
Completion Date : April 1983.
Total Direct Cost : \$ 2341.15
Scientific Program Head : Dr. M. M. Rahaman

This protocol has been approved by the Nutrition Working Group.

Signature of Scientific Program Head: M. M. Rahaman
Date: 21/8/1982

Abstract Summary

In Bangladesh, young children suffer from various degrees of malnutrition, however the greatest nutritional insult occur from the age of second six months of life to 36 months.

In view of the serious magnitude of the problem of malnutrition in this age group, it is imperative that we understand the role of both socio-economic and behavioral factors. While the role of poverty in the aetiology of malnutrition cannot be ignored, the fact that child rearing behavior can have an affect on nutritional status of young children cannot go unrecognised either.

The primary object of this study is to identify behavioral practices which have an impact on the nutritional status of young children of 6 months to 36 months. To speak more definitively about the role of behavioral factors, the socio-economic status will be controlled.

From each group i.e., landless and landholders, two pairs of (four to five in each set) households with all well nourished and all malnourished children in the 6-36 mo. age group will be selected for in-depth observation of child rearing practices.

A comparative study of child rearing practices in two socio-economically matched samples will enable us to identify which behavioral factors contribute to good nutrition and which do not. Identification of positive and negative behavioral practices will be of help in designing nutrition education program which more tuned to the reality.

Reviews:

1. Research Review Committee: _____
2. Ethical Review Committee: _____
3. Director: _____

RESEARCH PLAN - SECTION II

A. INTRODUCTION:

The problem of malnutrition among the young children in Bangladesh has been documented in the 1975-76 in Nutrition Survey of Rural Bangladesh and in many other community studies. The survey showed that 53 percent suffer from 2nd degree and 25 percent suffer from 3rd degree malnutrition in the 0-5 year age group.

In view of the serious magnitude of the problem of malnutrition in the young children's group, a careful in-depth study of the behavior associated with child-rearing practices particularly related to feeding is deemed essential.

1. Objective

The primary objective of this study is to identify behavioral practices which have an impact on the nutritional status of young children of 6 months to 3 years.

2. Background:

In Bangladesh, studies on childhood nutrition include national nutrition Survey, anthropometric studies and nutrition surveillance at the community level (Khan 1980, Islam 1980.) In addition to Khan's Growth and Development Study in Mehran, ICDDR,B publications include an anthropological study of child care in rural Bangladesh (1965). Lindenbaum's study of child care gives an over-view but does not give detailed information on behaviors which can possibly have an impact on nutritional status of children.

In other developing countries faced with the similar problem of malnutrition such as in India, the usual trend in studying nutritional status has been (1) broad based survey studies e.g. Nutritional Survey or Community Studies (Ghai 1975, Cutting 1975), (2) hospital based experimental studies (Gopalan), anthropological studies of child care. The survey and experimental studies provide little information on behavior surrounding child care practices. Traditionally, the study of child-rearing practices has been in the domain of psychology and anthropology, psychological studies of child care are concerned with child development in relation to the stimulation the child receives in the environment. Thus, mother-infant interaction is studied from this perspective. Consequently, behavior surrounding feeding even when studied, the objective is not to see its impact in determining nutritional status (Ainsworth 1977).

The perspective used in anthropological study of child rearing practices is much broader. The "holistic" nature of anthropological research requires investigation of child-rearing practices in relation to the social structure, cultural beliefs and values. A number of anthropologists have studied child-rearing practices. (Poplin et al 1964, Aberle 1961, Minturn et al 1964, Whiting and Whiting 1968, Weisner 1973). Their studies indicate that child-rearing practices cannot be studied outside of the household environment and social-cultural framework.

Theoretical Approach

Two different theoretical approaches, prevailing in the study of nutritional anthropology but not specifically focusing on childhood nutrition have been identified by Dewalt and Pelto (1977). It may be useful to discuss these approaches as they have a bearing on our research problem and the approach we wish to use.

The first approach reflected in the writings of both anthropologists and nutritionists (influenced by anthropologists) is a cultural behavioral approach. The second one, articulated mainly by social scientists and a few anthropologists (Oshima 1965, Sai 1965, Kuferer 1962, Harris 1968, Marchionne, Dewalt and Pelto 1977) regards economic factor to be the primary determinant in the aetiology of malnutrition.

The importance of cultural factors in the aetiology of malnutrition has been pointed out by both anthropologists and a few other health science experts such as Gopalan, Jelliffe and Cravioto. However, these authors did not study cultural factors by controlling the socio-economic variables. The relationship between childhood malnutrition was studied by Walia and Gambhir (1979) in households matched by status. They attributed the differential nutritional status in the same socio-economic group to early introduction of semi solid food. The maternal knowledge and beliefs regarding nutrition were not found to differ and thus were not responsible for causing differential nutritional status. Though Walia and Gambhir studied

beliefs and behavior related to nutrition in two socio-economically matched samples, there are important differences between Walia and Gambhir's and our proposed.

These differences are:-

- (1) Sample size of Walia Gambhir's studies being large (100 households) could not provide in-depth analysis of behavior whereas our sample size not exceeding 10 in each group, will allow us to do unobstrusive observation of the daily life schedule which in trun, will help us to understand the relationship between behavior and belief system.
- (2) Interviews by questionnaire was used by them and we will use anthropological field technique of participant observation and unstructured informal interviewing.
- (3) Also, the procedure of selecting households will be slightly different. The nutritional status of household will be distinguished by combined nutritional status of all children in the 0-3 year age group.

This procedure is different from Walia and Gambhir where only children with well and mal-nourished status were identified from the same socio-economic group of households.

Rationale

In view of the absence of any in-depth study of child rearing under controlled socio-economic conditions, the importance of studying feeding related behavior in controlled situation is obvious. The rationale for doing such a study is two fold; firstly, identification of behavioral practices which have a positive impact on nutritional status of children is crucial for Bangladesh and other developing countries as it will help us in designing effective nutrition education programs. Secondly, such a study can pave the way in formulating theoretical perspective which will be able to bridge the gap between cultural, ideological and economic approach.

SPECIFIC AIMS:

The specific aims of this protocol are:

1. Make an inventory of various tasks performed by the mother and other caretakers.
2. Find out how the mother and caretakers organise their tasks and the impact it has on child care .
3. Study how the primary and secondary caretakers respond to children's crying and/or specific demands for food.
4. Study the influence of barimothers and members of other social-network in child-rearing i.e. beliefs and attitudes related to childcare prevailing in the community and their influence on individual mothers or primary caretakers in child-rearing.

5. Compare the extent of variation in maternal beliefs and practices related to child care, especially the feeding pattern.
6. Identify child centered behavior i.e. type of behavior exhibited during meal time and find out its impact on the nutritional status.

C. METHODOLOGY:

It is now generally agreed that a complex set of factors which include socio-economic, cultural-behavioral and biological factors are responsible for causing malnutrition in young children. Since the purpose of our study is to understand the broad spectrum of cultural-behavioral factors, it is essential on our part to control the effects of other factors such as socio-economic and biological. In doing so, the effects of cultural-behavioral factor's on nutritional status can be identified. One can speak of the role of cultural behavioral factors involved in promoting good nutrition or causing malnutrition in a more definitive manner.

One set of factors which can predispose a child to malnutrition is its birth weight. The nutritional insults suffered in utero can continue to show its effect in infancy and early childhood.

Similarly, long bout with serious illnesses can also affect the nutritional status of the child adversely.

It is necessary to control the effect of both biological and socio-economic factors if we are to carefully study the role of cultural behavioral factors involved in malnutrition. Before selection of sample, disease history and size of the new-born (to roughly estimate birth weight) will be taken. Children who were born previously

small or have had serious illness would be excluded from the study.

The socio-economic variables having an impact on nutritional status of children which include income, landholding, education, religion, occupation, age, parity of the mother will be controlled. The households selected will be distinguished along nutritional status of children of 6 months to 3 yrs.-age group. Weight for age will be used as a measure of nutritional status. Since Matlab census has age records, weight for age can serve as a good measure of nutritional status.

In distinguishing children of 6 months to 3 yrs. age group by nutritional status, it seems most appropriate to have two sets of cut off points for well and malnourished. While we wish to use 60% below the standard of International Reference Population as malnourished and 70% above of the standard as well nourished, we find the 60% below cut off point for 6-7 months old children to be too low as it would be difficult to find children in that weight group (personal communication with Dr. Bairagi) I therefore find it necessary to use 65% below and 75% above the International Reference Population Standard for classifying children into malnourished and wellnourished in the 6 month-7 month age group.

Having selected the criteria for distinguishing children by nutritional status, the next step is to decide how we want to select the households. Since the unit of analysis would be households rather than children. the households are to be distinguished by nutritional status. For a household to be classified as well or malnourished, all children of 6

month ² 3 years age group should be wellnourished or malnourished according to the selected criteria. If the household has only one malnourished child, it will not be included in the study.

Since the landless constitute a significant proportion of the rural population, it would be very useful to find out behavioral measures related to child care has any significant effect in the determination of nutritional status of children. After visiting 10-15 households in a village in Matlab, it soon became apparent that finding wellnourished households according to our criteria would be very difficult. I therefore have decided to also include high-income landholding groups in the study couple. From each group i.e. landless and land-holding, two pairs of households consisting of four to five households in each set will be selected. The broad spectrum of cultural behavioral measures will be studied by careful observation of the daily life schedule.

By selecting samples from both landless and landholding groups, it will be possible to identify differences in behavioral strategies in both landless low income and landholding high income group.

Since we are interested in the behavior associated with feeding of Children of 6 months to 3 year age group, we cannot limit ourselves to the study of maternal/caretakers behavior. For children older than 2 year of age, their own behavior displayed in eating time can also affect nutritional status.

The ideal and actual behavior associated with child rearing, particularly feeding will be studied by the use of anthropologist's participant observation technique and informal interviewing. The interviewer/anthropologist will visit each household twice a week for four weeks, this means, each household will be interviewed and observed eight times in the total period of the study. Since, we do not plan to see the effects of seasonality at this time, it is believed that eight visits per household lasting 4-6 hours at different times of the day will cover all the possible ranges of maternal/caretaker and child behavior related to food use.

1. SIGNIFICANCE

In a country like Bangladesh where large majority of households belong to the landless group, a study of maternal/caretaker's behavior in landless homes assumes special significance. A comparative study of child-rearing practices in two socio-economically matched samples, will enable us to say with greater assurance which behavioral factors contribute to good nutrition and which do not. In sum, the essence of doing a comparative analysis of beliefs and behavior related to child care, particularly feeding is of special value to anyone interested in designing a nutrition education program which is more tuned to the reality of poor village homes in Bangladesh.

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SECTION III - BUDGET

1. Personnel Services	% Effort No. of days	Annual Salary	<u>Project Requirements</u>	
			Taka	Dollars
Najma Rizvi	15% (3 mo.)	US\$ 25,000		
Research Officer	months	Tk. 4,800	12,000	630
Field Assistants (2)		Tk. 36,120	18,060	950
Field Supervisor	(10%) 1 mo.	43,896	365	19
2. <u>Supplies and Materials</u>				
<u>Items</u>				
Stationery, pens, pencils.			200	10.52
Color films, processing			1,000	53.63
Xerox, Mimeograph.			400	21.00
3. <u>Transportation</u>				
ICDDR,B Transportation			2,000	100.00
4. <u>Per Diem</u>				
P. I.	40 days (150 per day)		7,600	316.00
Research Officer	40 days (115 per day)		4,600	242.00
			46,225	2341.15

কৰ্মকাৰী আৰু আৰম্ভণিৰ প্ৰাৰম্ভিক সময়ত কৰ্মকাৰীক সঠিক
কৰ্মত অধ্যয়ন কৰিব।

কৰ্মকাৰী আৰু আৰম্ভণিৰ সময়ত কৰ্মকাৰীক সঠিক কৰ্মত
অন্য অনুভৱিত হাবি।

অনুভৱিত যদি আৰু জৰুৰী কৰ্মকাৰীক সঠিক কৰ্মত
অন্য কৰ্মকাৰীক হিম-অন্য কৰ্মত।

কাৰ্য্য নক্ষত্ৰ :-

আৰম্ভ নক্ষত্ৰ :-

কাৰ্য্য নক্ষত্ৰ :-

৬৪ নক্ষত্ৰ :-

প্ৰাৰম্ভ :-

জানিথ :-

জা আৰম্ভ

কাৰ্য্য অন্ত

CONSENT FORM FOR NUTRITION EDUCATION STUDY

The young children of Bangladesh do not generally suffer from the insults of malnutrition until the age of four or five months. The reasons for deterioration of health from this age and how to prevent it need careful study of the feeding and morbidity pattern of the child. In doing such a study, it is also important to know the food availability as well as the constraints under which family functions.

We want to ask you a few questions regarding your family and the child's feeding pattern. In addition, we want to keep a monthly record of your child's growth pattern and a weekly record of child's illness. This will help us to devise a nutrition education program for improvement of the health of children.

If, at any time, you wish to seek health advice or get treatment please feel free to ask. You may refuse to participate or withdraw at any time from the study.

Please sign or give thumb imprint in behalf of your child/children if you agree to participate in our study.

Signature/L. T. I. of the Parents.

Father's Name _____

Mother's Name _____

Household No. _____

Village _____

Date _____