

11. Beyond data collection: Facilitating the application and use of ethnographic information to guide health programmes and further research

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This paper describes the experience of the author and her collaborators in adapting the RAP methodology to diarrhoeal disease control programmes. The extensive information already available on beliefs and practices related to diarrheal disease guided the development of guidelines for rapid qualitative research on this topic. However, there was no similar background on using RAP derived information for specific programme recommendations or addressing management issues. Examples are given of the kind of information obtained by RAP that will determine the nature and success of intervention programmes for the control of diarrhoeal disease. In 1992, a set of guidelines for conducting RAPs on Diarrhoeal Disease Control programmes, authored by Herman and Bentley, will be published by The International Nutrition Foundation, Inc., Boston, MA. - Eds.

THE RAPID ASSESSMENT Procedures (RAP) methodology [1] was developed in response to a need for timely information relevant to primary health care and nutrition programmes. The past five years have witnessed the proliferation of manuals that apply the concepts and methods of RAP to a broad range of topics and interventions. These manuals have encouraged and facilitated the efficient collection of detailed information that is directly relevant to the needs of programmes. The challenge that now faces individuals and programmes attempting to adapt RAP is to go beyond the task of data collection, and to assure the appropriate interpretation, application and use of the information collected.

This paper describes the authors' experience in adapting RAP methodology to address the needs of diarrhoeal diseases control (CDD) programmes. This task was greatly facilitated by the availability of a wealth of information on beliefs and practices related to diarrhoeal diseases from a variety of settings [2-6]. These previous ethnographic studies helped to define the important topics and issues for inquiry, and to identify relevant themes (e.g. the association of teething and other developmental processes with diarrhoea) that recur across cultures.

Whereas the content of a manual for ethnographic data collection related to CDD programmes was guided by the results of preceding research, there was little precedent for developing a

process that leads developing country anthropologists and other individuals using the manual to be more active in making specific programme recommendations. As documented by Scrimshaw and Hurtado [7] in their description of anthropological involvement in the Central American Diarrhoeal Disease Control Project, there is a tendency among applied anthropologists to make recommendations that are "...too sweepingly broad to be feasible". They emphasize that "...it is important for anthropologists to break their recommendations down into smaller, concrete, more manageable steps [2] and to spend the necessary time to see that the recommendations are integrated into program policies, messages and material" [3].

In developing a manual for CDD programmes, therefore, the authors faced the challenge of guiding the manual's users to develop specific recommendations that address common diarrhoea case management problems, e.g. low oral rehydration salts (ORS) use rates, the administration of inadequate volumes of fluids during diarrhoea, the misuse of antibiotics, and decreased nutrient intake in response to illness. Because of the number and variety of factors that affect these problems, the authors recognized the need to apply the principle of optimal ignorance:

"Optimal ignorance refers to the importance of knowing what facts are not worth knowing. It requires courage to implement. It is far, far easier to demand more and more information than it is to abstain from demanding it. Yet in information gathering there is often a monstrous overkill [8]."

In the context of a manual for CDD programmes, optimal ignorance implies focusing data collection on a limited number of the most "promising" possible solutions to commonly occurring problems in a given context.

This paper describes a manual developed to facilitate both "optimal ignorance" and active application of ethnographic data collected for diarrhoeal diseases control programmes. The purpose of the manual is to identify ways of promoting appropriate diarrhoea case management (particularly the administration of extra amounts of recommended fluids and continued feeding) in ways that are most consistent with existing beliefs and practices. The assumption underlying the manual is that, if prescribed behaviours are promoted in ways that "make sense" in the context of local beliefs, they are more likely to be adopted by the local population.

Designing manuals to promote optimal ignorance and active application

The strategy used to promote both optimal ignorance and active application is to incorporate the early identification of possible recommendations (in the case of diarrhoeal diseases control, approaches to promote oral rehydration therapy and feeding) into the data collection and analysis process. The first part of the manual guides the use of key informant interviews to collect basic information about local types of diarrhoea, perceived aetiologies of diarrhoea, prescribed interventions for different types, and associated symptoms. It instructs the data collector to use this basic information to sketch a summary of the classification system and to draft a preliminary outline of his/her understanding of the belief system. The preliminary information is then used to identify a list of "possible approaches" to promote appropriate case management practices. The manual emphasizes "non-judgmental brainstorming" to produce a listing of all possible approaches, including any that may not initially seem to be appropriate.

The manual then guides the user to assess and list the pros and cons of the different approaches and to identify questions that must be answered to further explore the possible approaches. Subsequent data collection with key informants then focuses on collecting additional information to explore the possible approaches in more detail. The additional information can then be used to select and possibly improve upon the best of the approaches.

The early identification of possible and culturally specific approaches to solving programme problems addresses two goals: it focuses data collection on topics and issues that are most relevant to the programme's objectives; and it assures the development of thoughtful and specific recommendations. This strategy can also facilitate the application of ethnographic data to developing more culturally appropriate survey instruments. After selecting the most appropriate of the possible approaches, it is necessary to determine how widely the beliefs and assumptions supporting those approaches are held. The ethnographic manual for CDD programmes guides the design of a structured questionnaire to determine whether the beliefs and practices identified by key informants are shared by other members of the community. The structured questionnaire can also check the appropriateness of the "optimal approach(es)" selected in the preceding sections of the manual.

Identifying "possible approaches"

The strategy of early identification and assessment of possible approaches to promoting programme recommendations was field-tested in the context of ethnographic studies of diarrhoeal diseases conducted in Baluchistan, Pakistan and South Sumatra, Indonesia. The Baluchistan study focused on identifying culturally appropriate ways of promoting oral rehydration salts (ORS) solution packets and sugar-salt solutions (SSS). In South Sumatra, the focus was broadened to seek ways to promote both the administration of extra fluids (including ORS and SSS) and continued feeding during diarrhoea.

Data collectors in Baluchistan identified 13 different types of diarrhoea that are most commonly distinguished on the basis of perceived aetiology. The 13 types include heat diarrhoea, constipation diarrhoea, indigestion diarrhoea, teething diarrhoea, fallen stomach vein diarrhoea, hot wind diarrhoea, cough and cold diarrhoea, bloody diarrhoea, spirit possession, worm diarrhoea, earache diarrhoea, measles diarrhoea and sunken fontanelle. The prescribed action or treatment for a particular episode is based on, and varies according to, the perceived local type. Most local types of diarrhoea are considered "hot" and are therefore treated with cooling remedies. There is a consensus that sugar is "cool" and salt "hot". Therefore, the mixing of salt and sugar in a diarrhoea remedy (as is the case in ORS and SSS) is particularly problematic in the context of the local belief system.

Key informants in Baluchistan expressed four basic assumptions about how the body works (folk physiology) and what happens during diarrhoea (folk pathophysiology) that are particularly relevant to understanding their management of diarrhoeal diseases. These basic assumptions are:

1. There are four humoral qualities - hot, cold, wet and dry - that are usually in balance in the body. Illness results from an increase or decrease in one or more of the humours in relation to the others.

2. The stomach is the centre of the body. Food is digested in the stomach and nutrients go from there to other parts of the body. The stomach is connected to other parts of the body by "veins" .

3. Children cannot digest food as well as adults. Diarrhoea results when a child is given food that he/she cannot digest.

4. Like any other container, the stomach gets "dirty". This can cause a blockage or it can cause excess heat. It is good to periodically "clean out" the stomach.

Table 1 lists some of the approaches to promoting oral rehydration therapy (ORT) in Baluchistan that derive from this preliminary understanding of the components and dynamics of the local belief system related to diarrhoea.

In this context it should be noted that intravenous (IV) fluids are very popular among the population studied. They are valued as especially strong medicine. Although generally considered "cold", IVs are described as being appropriate for both "hot" and "cold" illnesses because they do not go into the stomach, but go directly into the veins.

Ethnographic data related to diarrhoeal diseases in South Sumatra, Indonesia reveals a very different belief system. Illnesses associated with loose stools are generally categorized into only three types: "regular" diarrhoea; diarrhoea with vomiting; and diarrhoea with blood.

There is much greater individual variation in the perceived causes of, and the recommended treatment for, diarrhoea than in the reported types of diarrhoea. Dirty or unboiled water, dirty food, and certain types of food are the most commonly identified causes of loose stools. Excess heat or fever, hot weather, spoiled breast milk, trauma, worms and a "fight" between hot and cold air are other aetiologies named. Several informants referred to *kuman* (tiny invisible animals that cause disease) as causing diarrhoea. A large variety of decoctions prepared from various leaves and plant products are used to treat diarrhoea. Individual informants generally recommend different treatments for different types of diarrhoea, but the study team could not identify any consistent pattern of treatment or any underlying principles (such as treating hot illnesses with cold remedies) to guide selection of a remedy.

Table 1. Possible approaches for promoting ORT in Baluchistan

- ORT prevents and treats "thirst"
- ORT prevents and treats "weakness" due to diarrhoea
- ORT replaces the water lost during diarrhoea
- ORT is strong medicine that is "like" IV drips. It goes directly into the veins.
- ORT "cleans out" the stomach
- ORT "cools" the stomach.

Existing concepts of what happens in the body during illness are dynamic, with certain symptoms or illnesses frequently "leading to" other symptoms or illnesses. "Fever" and "air

inside" play a role in the folk pathophysiology of many illnesses, including diarrhoea. Key informants frequently describe sequences of muscle ache caused by an injury leading to fever, which in turn leads to an illness such as diarrhoea, cough or seizures.

The possible approaches to promoting ORT derived from a preliminary understanding of the belief system in South Sumatra are listed in Table 2. The list reflects a recognition of, and concern about, weakness and thirst during diarrhoea that is similar to the concern with these symptoms expressed in Baluchistan (Table 1). The list of possible approaches for South Sumatra also reflects the fear of one illness "becoming" another, more severe illness, and the concept of "kuman" both of which are peculiar to the population in South Sumatra (Table 2).

Exploring possible approaches

In both the Baluchistan and the South Sumatra studies, the pros and cons of each approach were identified in the context of available information about the belief system. As an illustration, the pros and cons of the approach "ORT prevents and treats weakness" in the Baluchistan context are summarized in Table 3. In assessing an approach, data collectors also identify unanswered questions related to each of the possible approaches. For example, in the initial assessment of "ORT prevents and treats weakness," it was considered potentially helpful that mothers in Baluchistan are concerned about weakness and that they actually have home remedies that are intended to treat weakness. Preliminary data collection, however, did not provide any information about how mothers define "weakness", about the association of weakness with different types of diarrhoea, or about the amounts of existing remedies that are given to treat weakness. Therefore, data collectors focused subsequent data collection on answering these questions, and questions related to each of the other possible approaches listed in Table 1.

Table 2. Possible approaches to promoting ORT in South Sumatra, Indonesia

- ORT prevents and treats thirst
- ORT prevents and treats weakness
- ORT "cools" the stomach
- ORT prevents the illness from becoming more serious (e.g. seizures or fever)
- ORT replaces lost food and fluid
- ORT fights the "kuman" that cause diarrhoea.

Table 3. Assessment of approach: "ORT prevents and treats weakness" in Baluchistan, Pakistan

PROS

- There are popular commercial products that treat weakness
- Treating the symptom may avoid the problem of different actions for different folk types

CONS

- Commercial glucose powders are considered "better" than ORS or SSS for treating weakness
- Doesn't address giving liquids to babies
- Doesn't address problems about salt, taste and measuring
- Doesn't address issue of liquids causing more diarrhoea and vomiting

QUESTIONS

- Do mothers perceive that all folk types of diarrhoea make children weak?
- When glucose powders are given for weakness, how much fluid is given?
- What is weakness?

At this juncture it is instructive to note that the "ORT prevents and treats weakness approach" was considered in both field sites. In Baluchistan, further data collection revealed that only a limited number of diarrhoea types are associated with weakness. Therefore, the approach might not encourage the use of ORT for all diarrhoeal episodes. Existing home remedies for treating weakness contain large concentrations of sugar because sugar is perceived as giving strength and energy. Furthermore, certain commercial preparations composed of glucose (without salt) are considered superior to ORT for preventing and treating weakness because they are only needed in small amounts (a few teaspoons three or four times a day). For these reasons, "ORT prevents and treats weakness" is not considered an optimal approach for promoting ORT use during diarrhoea.

In contrast, additional data collected in South Sumatra suggest that promoting ORT as a means of preventing weakness may be effective in that setting. South Sumatran mothers perceive weakness as a potential consequence of all types of diarrhoea (including diarrhoea due to teething and other developmental processes). Furthermore, mothers perceive weakness as the direct result of loss of water and food from the body through the stool. At present, mothers do not know of any way to treat the weakness except to stop the diarrhoea. This failure to recognize fluid and electrolyte replacement (and not necessarily stopping the diarrhoea) as the key to treating diarrhoea-induced weakness is common among all cultures. However, the existing recognition of water and nutrient losses as the cause of weakness may facilitate the linkage between ORT and preventing weakness.

In both the Baluchistan and the South Sumatra study sites, additional key informant interviews helped to answer questions identified in the process of assessing possible approaches. Terminating data collection following additional key informant interviews, however, would risk basing final recommendations on beliefs and practices that are peculiar to a small and non-representative portion of the population. For that reason, data collectors in both sites proceeded to develop and administer a structured interview to larger and more representative segments of the respective populations. Neither set of data collectors followed a rigorous procedure in developing and pretesting the structured interview (as might be followed in designing a formal survey instrument). The development of the structured interviews, however, serves as a model for using a combination of qualitative data from a small number of key informants and quantitative information from a representative sample of respondents to develop final recommendations.

Conclusion

The paper has argued that requiring data collectors to identify possible approaches to addressing programme problems early in the course of the study can focus the data collection on topics and issues of maximal relevance to programmes, and can facilitate the application and use of ethnographic information. The comparison of similar studies conducted in Pakistan and Indonesia demonstrates that, although the same themes may recur in different settings, the meaning of those themes cannot be determined without additional cultural information.

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Endnote

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