

# **Combining Causal Model and Focus Group Discussions Experiences Learned from a Socio-Anthropological Research on the Differing Perceptions of Caretakers and Health Professionals on Children's Health (Bolivia/Peru)**

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*The paper discusses the utility of constructing causal models in focus groups. This was experienced as a complement to an in-depth ethnographic research on the differing perceptions of caretakers and health professionals on child's growth and development in Peru and Bolivia. The rational, advantages, difficulties and necessary adaptations of combining the two techniques are discussed on the basis of concrete examples. Authors conclude that the building of a causal model in a focus group session can be useful in comparing lay etiologies of diseases as perceived by different categories of caretakers and health professionals and in identifying specific health risks faced by children. Causal model building in a focus group can help renew discussions and participants' interest but its use is only justified when the study concerns the perception of the causality of a given phenomenon<sup>1</sup>. Key words: *Qualitative Methods, Health Risks, Causality, and Lay Etiologies.**

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## **Introduction**

The aim of this paper is to present and discuss a specific technique that was used in the socio-anthropological component of a participatory action research project on child growth and development in Peru and Bolivia (1998-2001)<sup>2</sup>. The project was conceived to develop and apply a global and integrated approach to promote child health with the participation of the health services, the parents, and other actors of the

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<sup>1</sup> The authors wish to express their thanks to the other research team members for their comments on an earlier draft of this paper.

<sup>2</sup> An earlier version of this paper was published in 2000. The paper presented here has been substantially modified, improved and actualized.

community<sup>3</sup>. One of the basic assumptions of the research was that participation and dialogue between all actors would progressively induce changes in their representations, attitudes, and practices in relation to health and development of children. The overall research encompassed a descriptive analytical phase that was to lead to designing interventions.

For the socio-anthropological component, an in-depth investigation with the use of classical ethnographic techniques (semi-structured interviews, observations) was applied. But a more innovating technique was used: focus group discussions with the support of a causal model building exercise. The objective of this specific exercise was to investigate the causes of child's health and development problems as well as local health risks children face as perceived by different categories of caretakers and health professionals.

The rational, advantages, difficulties, limits and necessary adaptations of combining focus group discussions and causal model building will be discussed on the basis of concrete examples. Before entering this discussion, it is worth briefly describing the objectives, the process, and the techniques used in the socio-anthropological research.

## **The Socio-Anthropological Research**

### **Objectives**

The socio-anthropological component studied: (i) the logics and comprehension of child health, growth and development as perceived by caretakers and health personnel; (ii) the relationships between these groups around child care; (iii) the activities considered necessary to support child growth and development; (iv) the factors explaining the differences of knowledge, perceptions and practices related to growth and development of children between caretakers and health personnel; (v) the feeding and socialisation process of children; and (vi) the perception and utilisation of the growth chart (and understanding of growth and development) by the health personnel.

### **The Research Process**

Actual data collection was conducted from September 1998 to April 1999. Field research was conducted in Bolivia in Chavez Rancho in the urban periphery of Cochabamba and in the Amazonian region of Chapare. In Peru, it took place in a marginal suburb of Lima (Independencia) and in a rural village (Choca) located 50 km of the capital city.

The socio-anthropological component permitted to gain insights on indigenous knowledge and perceptions in relation to child health and development, nutrition, local health risks children face, health services, lay etiologies of diseases, health seeking behaviors and associated decision making by the caretakers<sup>4</sup>.

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<sup>3</sup> The research entitled *Health sector reform: towards a more global approach of child health* was financed by the INCO-DC program of the European Community [n° IC18-CT97-0249 (DG12-WRCA)].

<sup>4</sup> The results of the socio-anthropological component were published in several articles and books (Lefèvre, de Suremain, Rubín de Celis, & Sejas, 2000; de Suremain, Lefèvre, & Pecho, 2000; Rubín de Celis, Suarez, Velarde, de Suremain, 2001; de Suremain, Lefèvre, Maire, & Kolsteren, (2001a) & (2001b); de Suremain, Gutierrez Blanco, & Lefèvre (Unpublished manuscript).)

## The Research Techniques

### *Semi-structured interviews and observation*

As far as the investigation dealt with representations and practices and the relationships between the two, it required the production of exhaustive discourses and observations that allow highlighting these two levels of reality. To produce this data, ethnographic techniques (semi-structured interviews, observations) were used as the main data collection tools. Since these techniques are widely known, they will not be discussed further<sup>5</sup>.

The strategy of home visits and to the health centers (on repeated occasions) was chosen to apply the tools. A pre-test was performed in both countries six months before the beginning of the research to validate and refine the tools.

Between October 1998 and February 1999, several students systematically applied the guides in Peru and in Bolivia. They proceeded by intervals of successive stays of about ten days per month in rural areas. In the urban areas they organized themselves to go as often as possible to the field, taking into account the constraints of the environment (availability of people, necessity to make appointments, etc.). Table 1 summarizes the number of interviews and observations conducted in Bolivia and Peru.

Table 1. Number of Interviews and Observations (Bolivia/Peru).

	Bolivia		Peru	
	Chavez Rancho	Chapare	Independencia	Chocas
<b>Interviews</b>				
Mothers	79	53	30	28
Fathers	4	3		
Other Responsible	4	4		
Doctors	7	18		
Nurses	3	14		
Promoters		5		
“Others”	15	12		
<b>Total</b>	<b>112</b>	<b>109</b>	<b>30</b>	<b>30</b>
<b>Observations</b>				
Health centers	7	8	4	1
Homes	13	10	20	25
<b>Total</b>	<b>20</b>	<b>18</b>	<b>24</b>	<b>26</b>

Source: Suremain (de) et al. (2000).

In addition to these ethnographic techniques, the research included the conduct of focus groups. These were however particular in that they used a specific support

<sup>5</sup> On the ethnographic methods and techniques in general see among others: Pelto and Pelto (1970); Creswell (1975); Creswell & Godelier, (1976); Sanjek, (1990); Albarello, Digneffe, & Hiernaux (1995); Denzin & Lincoln, (1994); Copans, (1996). On interviewing techniques: Patton (1990); Fontana & Frey (1994). On observation techniques: Patton (1990); Arborio & Fournier (1999). On ethnographic description: Laplantine (1996).

known as the “causal model”. In the following sections we will briefly explain the main characteristics of these two data collection tools.

### *Focus groups*

We understand a focus group as a guided but open discussion within a group of specially selected people (Krueger, 1988; Morgan, 1988). The discussion is focused on a specific topic. The technique is based on the concepts of social group and of group dynamics. It permits to produce a fair amount of qualitative data in a relatively short time and with limited financial resources. If implemented correctly, the technique can therefore be very efficient.

A qualified moderator guides the discussion. To do so, he introduces questions to the group on the topics of interest for the research. It is worth noticing that focus groups produce two types of data: what people say, but also observational data on the behaviors and the interactions of the participants during the discussion (laughs, smiles, etc.). The moderator is therefore attentive not only to what is being said but also to corporal expressions or other kind of reactions of participants.

Focus groups do not constitute in any case a sum of individual interviews. On the contrary, participants are invited to share and to discuss their opinions and feelings. They must interact, exchange and influence one another during the discussion. Not all participants need to respond to all the questions put forward, but everyone does have the possibility of doing so. The following are basic technical recommendations for the conduct of focus groups:

- Focus groups comprise an ideal number of participants ranging from 4 to 12 (Tang & Davis, 1995);
- Sampling is purposive. The criterions for selecting participants depend on the objectives of the study and initial hypotheses;
- It is essential that the participants are homogeneous in relation to their socio-cultural origin and their socio-economic level;
- It is also preferable that the participants do not know each other;
- The number of discussions on the same topic and with participants of the same profile (young mothers, grandmothers, etc.) is usually comprised between two and four. More focus groups generally do not provide additional information. This particularity implies the necessity to perform preliminary analysis between two focus group discussions;
- The question guide contains from 5 to 10 questions as a maximum. These are open-ended and ordered, starting with the most general questions and ending up with the most specific and/or sensitive ones. To achieve more spontaneity in the communication, the moderator memorizes questions;
- In order to be able to properly analyze the discussions, it is useful to record them.

### *Causal models*

For us, a model is understood as a simplified representation of a process or of a system (Beghin & Van der Stuyft, 1995). The causal model is a peculiar case of this general figure. The model graphically represents the causality of the phenomenon under study. It allows therefore a global and systematic comprehension of the causes that are related to it (Beghin, Cap, & Dujardin, 1988). In other words, a causal model is an organized and hierarchical set of hypotheses linking together the potential factors

that play a role in a given situation, usually problematic, that will be attempted to change.

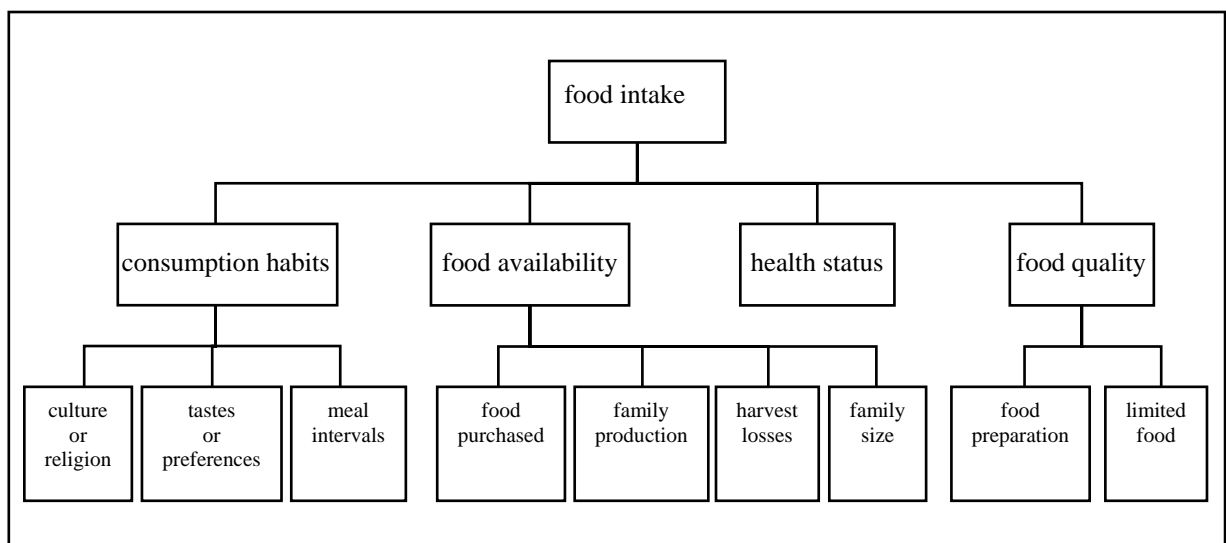
Used first in Latin America in the late seventies for nutritional assessment purposes (Pradilla, 1977), the tool has been progressively sophisticated and its construction rules standardized by the Belgian nutritionist Ivan Beghin and his team (Beghin, DeMuynck, Van der stuyft, & Mentés, 1989; Beghin et al., 1988; Lefèvre & Beghin, 1991; Ramos, 1991).

When used in nutritional diagnosis, the causal model allows selecting empirical information required for the diagnosis, and it facilitates data analysis and interpretation. It also permits to identify and to select relevant interventions for action (together with a set of criteria). The causal model has also been used in the framework of evaluation (Ramos, 1991). It is then used to assess the relevance of ongoing interventions and for identification of confounding factors/situational aspects on which the program has no control (Lefèvre, 1999; Lefèvre, Kolsteren, DeWael, Byekwaso, & Beghin, 2000).

The model also proved useful in the empirical research setting (Van der Stuyft, Eusebio, Tellier, Balitabat, Lantican, & Ramos, 1991; Wilson, Timmerman, DeMuynck, Levin, Beghin, & Van der Stuyft, 1989), for example in the epidemiological study of the control of sleeping sickness (ATCMG, 1989; Beghin, De Muynck, Van der Stuyft, & Mentés, 1989), and as a tool for research and action at the local level (Tonglet, Maheshe, Masumbuko, Beghin, & Hennart, 1992). More recently, the model has been used as a basis to conceptualize nutrition education (Andrien & Beghin, 1993) and stunting (Kolsteren, 1996a, 1996b).

Causal models are usually built by a multidisciplinary team composed of technicians from different sectors and local actors (politicians, community representatives, key informants, etc.) knowledgeable about a local situation, typically at the district or regional levels (Beghin et al., 1988). However they can also be built at community level (Depositario, Cardenas, & Garcia, 1992; Eusebio, 1991). The tool allows for participation of these various categories of actors and is known to be acceptable at these levels.

**Figure 1. Section of a Causal Model on Food Intake.**



Source: Byekwaso, F. (2001).

Figure 1 is an extract of a causal model built for planning a development project in Uganda. Elaboration of such a model follows a set of simple rules that are enumerated below.

- The building of the causal model starts with a brainstorming session to identify and list the main causes of the problem at hand based on participants knowledge, experiences and perceptions and supported by any information that is available;
- Based on this list, hypothetical causal model links are built in a hierarchical order. First, the direct causes of a problem are determined. Then, the factors affecting these causes are identified. At each subsequent step the nearest or most direct causes are distinguished. During the process, new causes are identified. The construction process is a stepwise decomposition of the problem working backwards to its root causes;
- During the construction process, it is common that participants experience confusions between causes and effects. This is due in part to the difficulty in grasping the logic of cause-effect from the bottom of the model upwards i.e., construction of the model goes (backwards) from effect to cause. To minimize this, the facilitator puts forward key questions such as “What factors directly affect box X?”;
- The construction of the model proceeds line by line at the beginning. It is not appropriate to fully develop one or more chains before completing the first (2-3) horizontal lines;
- The model does not intend to loop or connect problems/factors (i.e., in situations where the effect in turn influences the causal factor). Rather, it encourages the furthest decomposition of a problem into its root causes. This is for sake of simplicity so that the model is used in analyzing problems and in facilitating selection of interventions;
- The model is kept simple, horizontal links are omitted. If the same factor appears to act in different places in the model, it is simply repeated as another box (but only broken down once);
- Broad, general, ambiguous or unclear terms are avoided (e.g., poverty, laziness, “socio-economic factors”, etc.) The exercise is an attempt to identify as much as possible specific causes that can be acted upon;
- Every determinant can be further decomposed into other determinant agents. Depending upon the objectives of the analysis, one can sub-divide certain parts of the model for further in-depth analysis (this is sometimes done in sub-groups);
- Since causal factors can play positively or negatively, they are usually stated in neutral terms. For example, the term “sanitation” is used preferably to “poor sanitation”.

In planning exercises, the building of a “good” causal model takes around 20 hours spread over three to four days (Beghin et al., 1988). Such models can number more than 100 boxes. After two to three hours, participants understand the main construction rules. Much time is allocated to refining the model and building consensus among the participants. It should also be noted that the links expressed in the model are hypothesis about causal relations that can be verified later when additional information has been gathered.

## Discussion

### Why Use a Causal Model in a Focus Group Discussion?

Although it is a recognized tool in nutrition planning, the causal model has been seldomly used for fundamental research. Under certain conditions, which we shall discuss further, the causal model can be used to understand lay perceptions of the causality of a phenomenon.

The idea of using the causal model to study the perceptions of different categories of actors through slightly modified focus groups is inspired by previous research conducted in the Philippines (Depositario et al., 1992). In that country, a causal model was built by a team of municipal planners, supervised by university researchers, in order to train village people on selecting and planning micro-projects. The model intended to identify major determinants of the pollution of a lake used by village fishermen. The causes of the problem put forward in the causal model built by the municipal planners appeared to be very different from those put forward in the model built by the villagers. Thus, the idea that the causal model could permit comparing perceptions of causality by different group of actors.

In order to do this there was a need for a suitable format to organize causal model building. The focus group technique was selected because it presented several interesting characteristics among which the small number and homogeneity of participants. It was thus decided to experiment the use the causal model in the framework of focus groups in Peru and Bolivia, as a complement to the in-depth ethnographic research.

As mentioned above, the specific objective of this exercise was to study the various determinants of child's health and illness as experienced by different groups of actors. In Bolivia, secondary objectives of these modified focus groups were: (i) to help specify some research topics for the in-depth research; (ii) to allow to refine the interview and observation guides<sup>6</sup>.

### The Conduct of the Focus Groups in Bolivia and Peru

In both countries, the main rules of the focus group technique were respected although, as quite frequently encountered in developing countries, adaptations had to be made. In particular it is difficult to select people who do not know each other (Dawson & Manderson, 1992). A particular stand was made on the homogeneity of the groups and on valorizing the participants. An abundant meal was served at the end of each session. Day care activities were organized for participant's children. The focus groups were conducted in Quechua and in Spanish. The initial box for the construction of the causal model was "the uneasiness and well being of children".

Table 2 summarizes the different types of focus groups conducted in Bolivia and Peru with the number of participants. Figures 2-4 are sections of causal models built by some of the groups.

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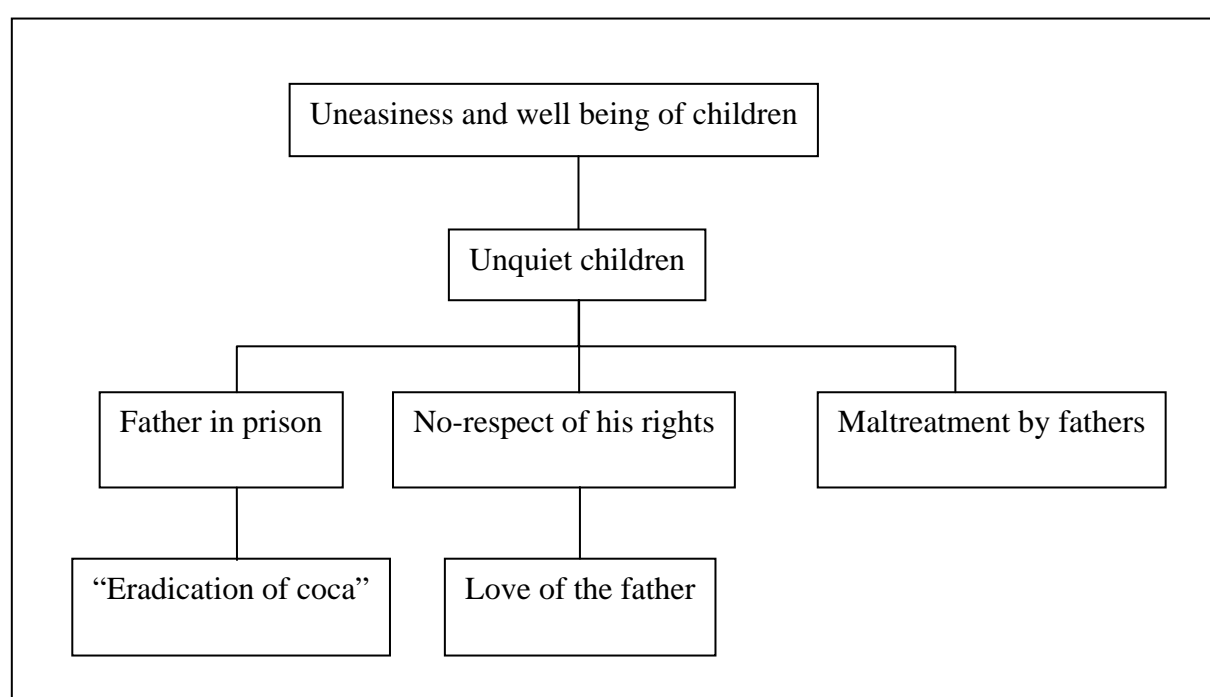
<sup>6</sup> In Peru, the focus groups were held after the in-depth investigation in order to collect data on topics not sufficiently covered by the ethnographical research.

Table 2. Focus Groups Participants and Locations (Bolivia, Peru).

	Bolivia		Peru	
	Chavez Rancho	Chapare	Independencia	Chocas
<b>Participants</b>				
Mothers	7	17	7	15
Auxiliary Nurses	10	10	-	-
Fathers	5	10	3	-
Health Personal	-	-	14	3
Health Promoters	-	18	7	15

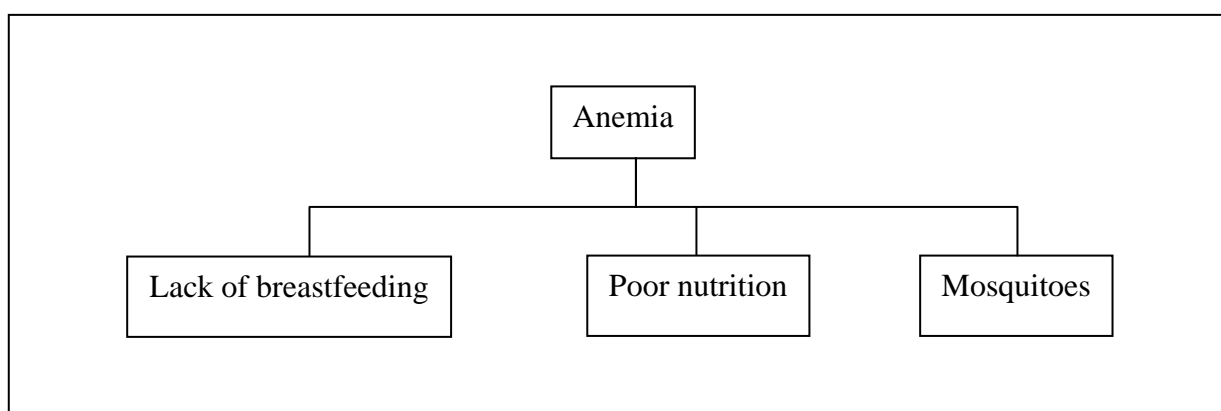
Source: Adapted from Suremain (de) & Lefèvre (2000) and Rubín de Celis, (1999).

Figure 2. Section of the Causal Model built by the Health Promoters (Chapare).



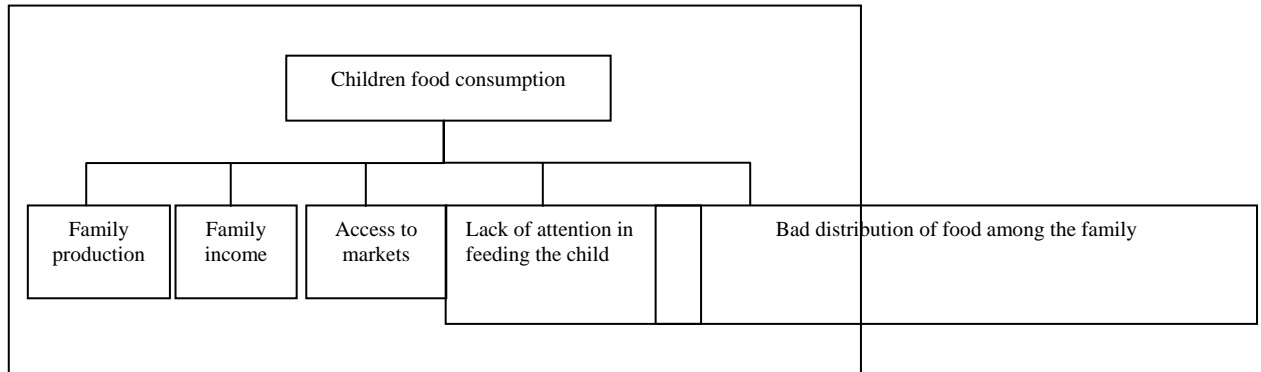
Source: Suremain (de) & Lefèvre (2000).

Figure 3. Section of the Causal Model built by the Health Promoters (Chapare).



Source: Suremain (de) & Lefèvre (2000).



**Figure 4. Section of the Causal Model built by the Auxiliary Nurses (Chapare).**

Source: Suremain (de), C.-É, and Lefèvre, P. (Eds. 2000).

The data set consists of the recorded discussions<sup>7</sup>, of complementary observations on the behavior of the participants and of the causal models per se. We will however not provide the exhaustive results of the focus groups conducted in Bolivia and Peru. Results will only be mentioned as far as they illustrate the methodological discussion.

### Advantages of Using a Causal Model in a Focus Group

The analysis of the transcripts and observations taken on the behavior of the participants as well as the analysis of the “causal models” permitted to obtain valuable information on the perceived symptoms of the child's uneasiness and on the local etiologies of diverse illnesses.

The two following examples illustrate this statement: The focus groups conducted with the fathers and mothers revealed much confusion between illnesses, symptoms and causes of diseases. For instance “anemia” is at the same time perceived as a disease, a cause and a symptom. Interestingly, anemia can be transmitted by mosquitoes (see figure 3). People say: “The child that sleeps during the day is anemic”. Fever is sometimes considered as an illness and other times as a symptom.

The models also permit to clearly distinguish between the health professionals and the population's perceptions on the perceived causes of infantile illnesses. For instance, the so-called “maternal negligence” is a behavior that, according to the mothers, does not affect a child's development. On the other hand, it is a fundamental cause according to the health professionals (see table 5). It is the same case for “malnutrition”. For the mothers, this state is caused by the presence of parasites, the consumption of sweets, fear (susto), as well as by “bad feeding”. For the health professionals main causes are lack of knowledge about nutrition and poor socio-economic status. Table 5 summarizes the main differences in causality of illness as perceived by health professionals and mothers or caretakers in Peru. Health professionals underpin micro-biological factors, factors related to the caretakers behaviors (hygiene, negligence, ignorance) or external factors such as the economic situation of the family or the environment (climate). Mothers do not consider micro-biological factors but emphasize factors related to child behavior.

<sup>7</sup> The discussions have been entirely transcribed and sometimes translated (from Quechua into Spanish). The Quechuas are an important linguistic group of Amerindians of the Bolivian and Peruvian highland.

**Table 3. Main Differences between the Causal Models built by Health Personals and Mothers or Caretakers Regarding Causes of Illness (Peru).**

<b>Health Personnel</b>	<b>Mothers or caretakers</b>
Micro-biological factors	Micro-biological factors not considered
Environmental factors	Child behavior (touches water, eats dirt)
Behavioral factors of caretakers (maternal carelessness and cleanliness)	Environmental factors

Source: Rubín de Celis (1999).

In addition to revealing differences in perception of causality, the focus groups also permitted to identify specific local risks to which children are confronted: the conflicts related to the uprooting of the coca in the Chapare (see figure 2), climatic changes (called *surazos*, which are strong cold Southern wind fronts), forest fires, and the consumption of fruits “too green or hot”, etc.

Despite the difficulties encountered, the use of causal models, as a support in a focus group has been a constructive experience not only in Bolivia but also in Peru. Main advantages are twofold:

- They allow participants to get strongly involved in the analysis of the proposed problem. Participants therefore tend to forget the “artificial” and “observed” situation in which they are immersed in a classical focus group, even if the group dynamic (inherent to the technique) consists in trying to make people forget about this situation.
- The moderator can use the causal model built by the participants to guide the discussions, for example by asking participants to give more explanations in regard to the content of certain boxes or relations.

### **Adaptations and Limitations**

It is important to remember that the causal models were constructed in a research perspective and not in a view of planning interventions. Its construction was not an objective in itself, but a support to organize group discussions.

To be able to build a causal model that “makes sense” in the logic of intervention planning, the moderator tries to obtain a consensus among the participants about the causes of the studied phenomenon and keeps an eye on whether the participants respect “the flow of classic causality”.

In a focus group that uses the causal model as support, it is necessary to allow, on the contrary, a great deal of freedom to the participants in the construction process, because the construction of the causal model is a support for the development of the group dynamics. When using a causal model in a focus group to study perceptions, the rules of construction are not strictly applied. For instance the rule related to the neutrality of terms does not need to be respected. Causes are not systematically hierarchized in a logical way (scientific logic). On the contrary the model reflects the perceived causality and the explanations provided by the participants. When analyzing the model, causes which have been omitted by the participants are very important to identify.

It is therefore important to keep the moderator from dominating and/or biasing the process. In order to do so, our recommendation is that the construction process should not be guided by “development planners” or “bio-medical personnel” but by a researcher having sufficient socio-anthropological background. In our experience, it is difficult to avoid that non social scientists influence responses or formulate value judgments in data collection. The training of socio-anthropologists consists indeed in learning the means of controlling interference, and thus limit potential negative effects of their position in data collection and data analysis.

Also, the moderator has to interrupt the construction of the causal model when pertinent discussions take place for the research. Only when the discussions are unnecessarily prolonged, can he guide the group back to the construction of the model.

If the use of a causal model support in a focus group has advantages, it also presents some drawbacks. First, this type of focus group sessions is more time consuming. Whereas a classical focus group lasts from one to two hours, three to four hours are necessary for the conduct of a focus group with a causal model support. A second inconvenience is that the moderator should dominate the two techniques very well.

Ethical considerations should also be taken in account (Van den Hoonaard, 2002) and in particular when dealing with perceptions of diseases. In this research for instance it was clear that some caretakers had “misconceptions” on the causality of some diseases. Some can be dangerous for the health of their children. Also, during the focus groups, there was a demand from participants to get explanations on some bio-medical topics that were being raised. It was not possible to answer this demand during the exercise since it would have biased the whole process. The solution found was therefore to organise after the focus group per se an open discussion to answer demands of participants and too draw their attention on harmful practices or misconceptions.

### **Advantages and Limits of the Use of Focus Groups in an Ethnographic Research**

In our knowledge, there does not exist any comparative study on the results obtained by focus group research and ethnographic research. There does exist however literature comparing focus groups and quantitative surveys (Ward, Bertrand, & Brown, 1991). In this section we will therefore briefly share our experience and observations in this respect.

When the decision was taken to complement the ethnographical research with focus groups, our intention was to obtain additional relevant information useful for the research and to triangulate research results therefore increasing its validity and to identify some topics that would be further explored within the research framework. While, in Bolivia, the focus groups were conducted at the beginning of the research, they were organized near its end in Peru.

In Bolivia, the focus groups permitted to refine the interview and observation guides. Four examples can be provided: in the focus group, the perception of the infantile illnesses as being “hot” or “cold” has been recurrent and explicit. Although we knew that these lay categories and principles of classification are central in the Andean nosology, their importance had been underestimated in the interview guides due to preconceived ideas on the urban and strongly mixed character of the areas where the research was to take place.

Food distribution within the family and its perceived incidence on child health was strongly mentioned in the auxiliary nurses' focus groups (see figure 4).

The focus group conducted with the health professionals indicated that several categories of actors were mentioned as being important in terms of their influence on children's health. These had not been identified previously: herbalists, naturalists, fortune-tellers, sorcerers and evangelist pastors.

Finally we had to take into account the numerous agricultural activities evoked by the men and the importance of migration to introduce refined questions on the variations of the family's composition and its economic resources.

The conduct of the focus group before the ethnographic research allowed refinements in two ways: topics were specified and other important actors identified. It is interesting to note that these topics and actors were not identified so explicitly by the pre-test. Retrospectively, we think that the pre-test would have yielded more interesting results if conducted after the focus groups.

The conduct of the focus groups also had other positive effects on the development of the research: they facilitated the access of students to the field and allowed, particularly in Chapare, the sensitization of certain actors to the action-research phase of the project.

In Peru, the focus groups were organized once the ethnographical research completed. They allowed collecting complementary data on various aspects not sufficiently covered by the ethnographical investigation. They also permitted studying certain beliefs and to specify very well perceived causes of some illnesses. For example, the importance of fear (*susto*) as both an illness and cause of diverse infantile illnesses is recurrent in the discussions with the caretakers. Using information already made available through the ethnographic investigation, it was easy for the focus groups moderators to investigate more in-depth this belief. In the individual interviews, fear only appears as a symptom. In the focus group it appears as a known illness whose symptoms are generally an extreme agitation during dreams and a depressive and amorphous state during the day. Also, "to be frightened" does not have anything to do with hygiene, but with circumstances or awful events that the child witnessed, or with accidents. As a consequence, those events have separated the soul from the body. In other words, what is an external symptom according to the doctors is, in the logic of *susto*, the indice of something much deeper that the child's relatives have to interpret in order to put an end to it.

The conduct of focus groups with the support of causal models also allowed identifying the competing explanations that arise from the coexistence of a traditional logic with the medical discourse. This is the result of the population's contact with the health professionals. This experience allowed discovering some of the reinterpretations to which the official health messages are submitted in the social representations of the caretakers.

Finally, the focus groups allowed investigating the boundaries mothers perceive between a child's normal and pathological state: his attitudes, his reactions, and the influences that define his behaviors.

In Peru and Bolivia, the focus groups have also permitted to triangulate a number of results obtained by the interviews and observations. It is the case for: (i) the essential responsibility of the mother in relation to the healthy and sick child; (ii) the little implication of the father but their fundamental role at the level of economic decision-making; (iii) the importance of the home medicine as the first resource in numerous therapeutic itineraries; (iv) the negative perception of the health centers and health personnel by the caretakers.

## Conclusions

Our intention in this paper is not to advocate for focus group research in development work. On the contrary, we think that classical techniques remain the most appropriate in most research situations. Indeed, ethnographic research and its tools allows to compare discourses to actual practices, reality and perceptions, and to restore the phenomenon under study in their socio-cultural context. However, the negative aspects of ethnographical work are well known. It requires time, money, availability of skilled investigators and their acceptance by the population. These constraints can become very “limiting” when research is conducted in the framework of development projects. Instead of escaping the problem and taking refuge in their methodological ivory tower, we think researchers committed to development work should accept methodological challenges and propose alternatives.

As we tried to point it out, the use of focus groups (with or without causal model support) can be a great aid. If they take place at the beginning of the research, focus groups allow orienting and focusing the ethnographical research in precise directions. If they take place near the end of the research, they may allow to deepen, to specify and to quickly amplify results on precise points. In both cases, the overall efficiency of the research (i.e., the relationship “cost/quality”) will be increased.

The ideal would obviously be to use focus group before and after the conduct of ethnographical work. When used before, focus groups should also be conducted prior to the pre-test (validation of interview and observation guides).

Focus group also allow to improve the validity of the obtained results by ethnographical research at least for the topics that have been investigated by the two techniques. It is the well known principle of triangulation (Denzin, 1978). Overall validity can also be increased by the application of this principle to data analysis and by feadbacking research results to the studied population. In any event, the complementary nature of the techniques is constructive only if qualified socio-anthropologists apply the tools with rigor (Seale, 1999).

It is only for very focused research questions (for example relatives’ perceptions of the care provided to a patient suffering from arterial hypertension) or when the description and understanding of the global context is of a relatively secondary interest, that the possibility of using only focus group research should be considered.

If we do not recommend the exclusive and isolated use of the focus group, we would neither advise using the causal model systematically within focus groups.

The analysis of the data produced shows that the causal model support revealed itself useful in generating information on the perceived causes of some infantile illnesses by different group of actors and in identifying specific risks faced by the children in various environments.

Causal model building can help renew discussions and participants’ interest, but its use is only justified when the study concerns the perception of the origin or causality of a given phenomenon. We recommend therefore resorting to focus groups with causal model support only when the research topic is directly connected with perceived causalities.

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