

APPROPRIATION OF THE GROWTH CHART BY MOTHERS OF UNDER FIVES IN BOLIVIA

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Introduction

International agencies, governments and NGO's promote the growth chart as an essential tool of GMP programmes. The underlying assumption is that the use of the growth chart could facilitate the communication between health workers and caretakers on the nature of growth and development and on the consequences for the child of an incorrect or inadequate diet. Through GMP, health services also want to follow-up children to detect early malnutrition.

However in the scientific literature, the relevance and usefulness of the growth chart is regularly questioned (1-3). These doubts are, on the one hand, technical (sensitivity, sensitivity predictive value). On the other hand it has often been reported that mothers do not understand the growth chart very well (4-6). In a recent paper, D. Morley (7) stated that the tool is difficult to use and understand by the mothers and he proposes a new tool as a solution. The usual explanation is illiteracy but is it really a question of capability to understand or is it rather a question of appropriation and interest? In other words are the mothers interested to follow-up the growth and development of their child using this specific tool?

Understanding and utilization of the growth chart by caretakers is however a central issue to reach this objective. In order to respond to this question different studies were undertaken, some of which are presented in this volume (8,9).

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The objective of the study presented here was to understand how mothers perceive the use and utility of the growth chart in Bolivia. Indeed little information exists on the perception of this tool by caretakers.

Our main research questions were the following:
What does the health card mean for the mothers?
Do they understand its objective and use?
Do they use it? For which purpose? How?
How do mothers understand the concept of growth monitoring?
Is the health card an instrument that facilitates communication and dialogue between health personnel and caretakers?

Material and methods

In order to answer these questions focus group research (10-12) was conducted.

In May 2000, four focus groups were organized in the peri-urban zone of Cochabamba (Chavez Rancho and San Juan XXIII) and in the rural amazonian region of Chapare (Puerto Aurora and Puerto Cochabamba). Both regions are inhabited by a majority of Quechua-Aymara Indians. These two groups represent round 40% of the Bolivian population (13).

Participants were mothers of under-fives. The research team identified participants. The groups were relatively homogeneous in terms of the mothers socio-economic background. In the peri-urban zone, the 2 groups were however contrasted in terms of educational level. The mothers from San Juan XXIII had a higher educational level than those of Chavez Rancho.

A researcher from the University Mayor de San Simón of Cochabamba did the facilitation of the focus group discussions. He was selected for his knowledge of the Quecha language and his animation skills. On average, 15 mothers attended the groups. Examples of the last version of the health card of the Ministry of Health were shown to the mothers at the onset of the discussions.

All focus groups were tape-recorded. Data was translated from Quechua or Spanish in French and codified and analyzed with the support of the QSR Nudist version 4.0 software in ITM. A preliminary data analysis benefited from the comments of the three other researchers involved.

Results

1. Mothers' perceptions and reported use of the health card

1.1. General perception

At the onset of the focus group discussions, when a health card was introduced to the participants, the spontaneously referred to it as a vaccination card.

[The nurses] call it the vaccination card; We do not know another name for it. [FG1 ; 81-82]

When we go to the doctor, they say: "And his vaccination card?" [fg1 ; 86-89]

This designation has to be related to the practical and main use of the health card made by the mothers and the health personnel that is the control of the vaccination schedule (see 1.3 and 2. below).

Data analysis also reveals that mothers consider the health card as an important document. They store them in envelopes or plastic bags and keep it in a safe place in the house with other important papers.

1.2. Mother's understanding of the health card objectives

Mothers do understand the monitoring objectives of the health card. For them, the card is to be used to control and follow-up the vaccinations, the weight and to a lesser extent the height of the children. They spontaneously mention the measurement of weight and height.

To control the weight, of his vaccines, of his growth, for all that. [FG1; 230-231]

When the child is not (well) nourished, he falls sick, he weights less... He loses two kilos, one kilo or half a kilo. This is how to control. It's because he has to eat well. Sometimes he will lose weight or gain weight. This is how we see how he develops and grows. [FG3 ; 169]

Mothers express interest and expectations in the growth curve and do understand its growth monitoring purpose, although, as we will see, they do not use it for this. For some mothers, partly related to their educational background, understanding the growth curve however still is a problem. Participants from the focus Group of Juan XXIII had a better understanding of the growth curve.

It would be good that they explain us a bit more on this subject, because many among us, we say that we know, but in reality, we do not understand the use of all these lines and curves, why they go up or why they go down... [FG3 ; 214]

What might be more important is that mothers express interest and expectations in the growth and development of their children. They would like to better understand

1.3. Mother's reported use of the health cards

Mothers say they use the health card for two main reasons: vaccination of the child and in the case of illness episodes to have access to care.

We only use it when we have to have the baby vaccinated. [FG3 ; 220]

I think of it for myself for instance as a certificate, if I do not show it, they won't attend to me. [FG1 ; 235-237]

The practical use of the card as an "aide-memoire" for the follow-up of the vaccination schedule was often mentioned:

At what moment we have to bring him to the doctor, when we have to go for the vaccine. They even give us dates, so with this we know when we have to go.. [FG2 ; 242]

According to the data, mothers do not seem to make a different use of the card for girls or boys. However the rank of the child in the family influences the use of the card. Mothers give much more importance to the health card of their first child.

Mothers report using the health card mainly the first year. This has to be related to its use for following-up the vaccination schedule.

In addition to the uses reported above, the health card has other utilities. Indeed, in Bolivia the card is also needed to enroll the children in school. Some mothers mention that they keep the card as a souvenir for their children later.

Very few mothers mentioned using the health card to follow-up growth and development of their children.

2. Use by the health personnel as reported by the mothers

The data gives profound insights on how the health personnel uses the health card. These results are in line with results presented elsewhere in this volume (8,9).

Mothers report that the health personnel mainly uses the health card as an administrative tool for following up the children's vaccination status, registering them at the clinic, and for allowing access to care whether it be preventive or curative.

The only thing he told me is that I should bring the card with me, that it serves to note down the dates of the vaccinations, the weight of the child and nothing else. He told me not to loose it as it is for his control. This, he told me the first time. [FG2 ; 361-365]

Here I follow the vaccinations, they gave it to me for that. [FG3 ; 47]

We take out the card only for having the children vaccinated and thereafter we put it away again. And when we have to go to the hospital, we take it out again and secure it again afterwards. [FG4 ; 568]

Just until he finished his vaccinations and thereafter, nobody asked for it anymore. [fg4 ; 270]

For the health personnel, the growth monitoring purpose is secondary. Few explanations are provided to the mothers regarding the information recorded on the growth chart. Interpretation of the chart, if any, is made by the health personnel.

A number of mothers complain that the personnel does not systematically plot the weight and height of the children on the curve.

We always did more or less what the doctor told us to do, but not while looking at the health card, saying "right, he is already here, this is the moment to start giving baby foods". No, not while looking at these [illustrations], but always while listening to the doctor, what he tells us, because, without doubt, he did not explain us the importance of these illustrations. [FG 1 ; 355]

Rude attitudes and poor communication skills of health personnel, as illustrated by the following quote, further hamper provision of information:

"How, madam, didn't you take it [the card] along?", ...like this, they tell us of ... then they open their mouth. Generally for telling us of, they are the first ones, but for giving us a good advice, that, that is rare, my good man. [FG 1 ; 776-780]

Discussion and conclusions

Although mothers express interest in matters related to growth and development of their children, they do not appropriate the growth chart as a tool for the follow-up. As such the card misses its health monitoring purpose and does not fulfil its role as a communication device between caretakers and health personnel.

The limited appropriation of the growth chart by the mothers seems to be partially induced by the health services themselves.

Three factors appear to play a major role in this limited appropriation of the tool by the mothers: a) the improper use and understanding of the chart by the health personnel; b) the lack of explanations provided to the mothers by the same personnel in relation with poor communicational attitudes.

In addition, as shown in an other paper in this volume (14), mothers rely on their own criteria to follow-up the growth and development of their children.

The study also indicates that the value of the growth curve can not be studied in itself, intrinsically and has to be considered in the more global context of the functioning of the first line health services. In the Bolivian context, improving the understanding of the growth chart by the health personnel, and more importantly, changing their attitudes and improving their communication skills is a pre requisite to any work on growth monitoring programmes.

Acknowledgements

The results presented in this paper proceed from an interdisciplinary research project that aims at developing and applying a global and comprehensive approach to the health of under fives in Bolivia and Peru. This is an INCO-DC research project financed by the European Community and entitled Health sector reform: towards a more global approach of child health [n° IC18-CT97-0249 (DG12-WRCA)].

References

1. George S, Latham MC, Gerein N, Cervinsas J. The practice of growth monitoring. *Lancet*. 1992;**340**:918.
2. Garner P, Panpanich R, Logan S. Is routine growth monitoring effective? A systematic review of trials. *Arch Dis Child*. 2000;**82**:197-201.
3. Gerein N. Is growth monitoring worthwhile? *Health Pol Plann*. 1988;**3**:181-94.
4. Grant K, Stone T. Maternal comprehension of a home-based growth chart and its effect on growth. *J Trop Pediatr*. 1986;**32**:255-7.

5. Gerein N, Ross DA. Is growth monitoring worthwhile? An evaluation of its use in three child health programmes in Zaire. *Soc Sci Med.* 1991;**32**:667-75.
6. Gopaldas T, Christian PS, Abbi RD, Gujral S. Does growth monitoring work as it ought to in countries of low literacy? *J Trop Pediatr.* 1990;**36**:322-7.
7. Morley D, Elmore-Meegan M. Let's move growth monitoring out of limbo. In: "Proceedings of the International Colloquium: Promoting growth and development of under fives". 28,29,30 November 2001. *Antwerp: ITGpress*, 2002; 253-259.
8. Roberfroid D, Lefèvre P, Kolsteren P, Hoérée T. Health professionals' perceptions of growth monitoring and promotion programmes. In: "Proceedings of the International Colloquium: Promoting growth and development of under fives". 28,29,30 November 2001. *Antwerp: ITGpress*, 2002;58-71.
9. Hoérée T, Zambrana E, Sejas E. Health promotion with and without the child health card: practice of primary health care personnel in Bolivia. In: "Proceedings of the International Colloquium: Promoting growth and development of under fives". 28,29,30 November 2001. *Antwerp: ITGpress*, 2002;72-79.
10. Lefèvre P, de Suremain C-E. D'une attente à l'autre. Quelques réflexions méthodologiques sur l'implication et la contribution de la socio-anthropologie à la nutrition de santé publique. *Cahiers Santé*, 2002 (under press).
11. Krueger R. Focus groups. A practical guide for applied research. *Beverly Hills: Sage Publications*, 1988.
12. Dawson S, Manderson L. The focus group manual. Brisbane: Social and Economic Programme of the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, 1992.
13. Tamisier JC (Ed.). Dictionnaire des peuples. Sociétés d'Afrique, d'Amérique, d'Asie et d'Océanie. *Paris: Larousse*, 1998.
14. De Suremain CE, Lefèvre P, Maire B, Kolsteren P. Local perceptions of child's health, growth and development among Bolivian mothers. In: "Proceedings of the International Colloquium: Promoting growth and development of under fives". 28,29,30 November 2001. *Antwerp: ITGpress*, 2002;87-95.