

# Relactation as therapeutical possibility in the care for infants with special food needs

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## Abstract

The Nutritional Care Program (NAP) of Rio Verde-GO started its activities in 2009, supported by the Municipal Health Fund, created to attend children diagnosed with lactose intolerance, allergy to cow milk protein, soy or multiple proteins, and inborn metabolism errors and malnutrition as well. In this context, this report aims to present the experience of this program to stimulate breastfeeding through the qualified host and guidance on the technique of relactation. Twenty eight mothers who received guidelines for return of breastfeeding through the NAP were interviewed by telephone. Among the interviewed, 78.6 % (n=22) did the technique, 21.4 % (n=6) did not try. Among mothers who used the technique, 68.2 % (n=15) did not resume breastfeeding. Of these, 86.7 % (n=13) argued that the baby rejected the breast and 13.3 % (n = 2) produced no breastmilk. Concerning the return of lactation, 31.8 % (n=7) of the mothers who used the technique succeeded. The success of the technique might be extended with a support network and encouragement for breastfeeding in town, which will increase the use of successful and low costs practices, which needs to be better disseminated to the public and healthcare professionals.

**Key words:** Lactation. Breastfeeding. Food Hypersensitivity. Lactose Intolerance. Infant Nutrition.

## Introduction

The Nutritional Care Program (NCP) is based at the administrative building of the Municipal Secretary of Health of Rio Verde, a midsize city with about 180,000 inhabitants in southwestern Goiás, a state of the central region of Brazil.<sup>1</sup>

This program was created in 2009 to assist and provide special formulas for infants and young children with lactose intolerance, allergy to cow's milk protein, soybean or multiple proteins, in addition to inborn errors of metabolism, malnutrition, diseases that impair the good functioning of the gastrointestinal tract, and children receiving enteral feeding. It also receives requests for initial and continuing formulas that are submitted to the Secretary of Social Services.

Due to the increasing demand for assistance to patients needing continuity of nutritional therapy after discharge from hospital, the NCP extended the services to adults with neurological sequelae, under oncological treatment, malnourished, with diseases that affect the gastrointestinal tract or are at enteral nutritional therapy.

Currently, the average yearly costs of the program are approximately R\$1 million, and 65% (n=144) of the users registered at the program are children and 35% (n=78) adults. Of the children assisted by the program, 4% (n=6) were included by court order.

Regarding child care, in addition to the provision of nutritional formulas, the program has the differential of stimulating breastfeeding and promoting relactation as a therapeutic alternative. The practice began after completion of specialized training courses promoted by the state government in August 2010. But the first record of relactation activities date back to August 2011. During this records gap, sporadic and unstructured guidance was performed.

Since 2011, the program provides guidance, support and materials, which are necessary for carrying out the technique of relactation, to mothers, parents or relatives of children often under six months of age who applied for the program to receive infant formulas.

It may seem paradoxical that breastfeeding is encouraged by an administrative unit that provides infant formulas. However, this practice is a key action in a breastfeeding-promoting city, because this service includes cases of difficulties in breastfeeding,

which might have been avoided during qualified pre-natal assistance, in baby-friendly maternity, home assistance and very close to the Household Health team, during the afterbirth care provided by the public primary care system or even by private or supplementary healthcare network, breastfeeding-friendly daycares, among other healthcare units.<sup>2,3</sup>

No matter which is the care unit cited above, the problems that affect breastfeeding will likely be directed to the municipal units that dispense formulas, especially when diagnoses require special and cost-intensive formulas. In addition, in a program that provides formulas in which the user presents a doctor's or nutritionist's prescription, encouragement to breastfeeding may be construed as a resistance of the program to the provision of infant formulas. Thus, encouragement to breastfeeding at this care unit and probably at other units is not advisable without previous specific training of the staff in communication skills.

For proper breastfeeding management, technical knowledge and the development of communication skills are necessary to attain the mother's empowerment.<sup>4-7</sup> The courses promoted by the State Health Secretary, specifically by the Coordination of Child Health and Coordination of Nutritional Monitoring in the State of Goias – course for multipliers dedicated to the Baby-Friendly Hospital Initiative in maternity hospital teams; course about the Brazilian Standard for the Marketing of Foods for Infants and young children, teats, pacifiers and bottles; workshop for the qualification of tutors of the National Strategy for Supplementary Healthy Food<sup>6</sup> – have been crucial to provide such knowledge to the NCP staff.

Relactation, as a therapeutic strategy for users of this and other programs is an effective technique to stimulate nursing. There are situations involving mothers or newborns in which relactation is recommended.<sup>8-11</sup> For newborns, relactation is indicated when the baby is at the hospital's maternity and has a prescription for some liquid or milk; the baby left breast to bottle and his mother wants to nurse him again; suction is little effective; has poor weight gain; rejected one or both breasts; is premature, learning to suck or cannot suck the necessary amount of milk; has some disease or condition that prevents him to make much effort (some neurological or heart diseases) or causes muscle hypotonia (e.g., Down syndrome).<sup>9</sup> For mothers, such indication occurs in the following

situations: the milk has not come in or she is at the immediate postpartum period; has taken a medication to dry up breast milk and wants to resume breastfeeding; has hypogalactia (deficient secretion of milk); is adoptive and wishes to breastfeed; or has one breast larger than the other.<sup>9</sup>

At NCP, relactation is encouraged when any of the above situations occur. Because it has been observed that part of the parents that had been encouraged to breastfeeding did not return to the program to receive infant formulas, we decided to investigate on the success of relactation. So, this report aims to present the NCP experience in stimulating breastfeeding and assess the success of relactation among the women assisted by the Nutritional Care Program in Rio Verde-GO in the first eight months of use of the technique.

## Methodology

This is a descriptive study conducted from August 2011 to April 2012, based on 30 cases recorded at NCP.

The target population was children and their respective mothers, fathers and/or family members that sought NCP for the provision of infant formulas and were encouraged to try relactation. The mothers that were approached for relactation were those who were not nursing or were partially nursing and supplemented with formula, often when the infants were less than six months old or when the mother's milk production has ceased six months at most. Such approach was not made with seropositive mothers to HIV or other diseases impeding lactation and mothers who were not receptive to restarting breastfeeding.

Information on the relactation technique was provided by nutritionists or interns with training on communication skills, relactation, and breastfeeding management (proper latch-on and breastfeeding positions, use of babe cup, milking, milk storage, etc.). To this end they provided instructional materials and nasogastric tube no. 4 to the mothers, fathers or relatives.

The educational material contained information on: the benefits of breastfeeding for the baby, mother, father and family; why not to use bottles, dummies / soothers

and teats; how to breastfeed / procedures (key points for positioning and proper sucking); how to place the baby to the breast; when to offer the breast; when to finish nursing; when to pump milk from the breast; how to store the milk; and relactation. The contents were distributed in a three-page leaflet, in brief, clear language and supported by figures.

Information such as the child's name and name of parents; date of birth; date of instructions; telephone of the parents and signature when they received the materials were collected on a specific form.

Relactation can also be called "adoptive lactation", lactation inducement" or still "translactation", when there is a transition between tube feeding to breastfeeding.<sup>8-11</sup> The technique used is the same and consists of the use of a device attached to the breast, which is connected to and/or immersed in a bottle containing the mother's milk or other milk. As the baby sucks, the liquid is released and at the same time suction stimulates the release of pituitary hormones such as prolactin and oxytocin.

Such hormone mediators depend on breast stimulation, and for this reason the baby should be fed on free demand, inclusive at night. Time to attain results varies; however, WHO estimates that in a period of one to six weeks women can produce enough milk to feed the baby without the need of supplementation until the age of six months.<sup>7-13</sup>

The technique, as shown in Figure 1, consists of: if the tube has more than one orifice, you should cut it, check if the areola is flexible, place the baby to the breast, observe the mother and the baby positioning and if the baby's latch-on is correct, then dip the larger end of the tube into the milk. The tube must stay higher than the mother's nipple or at the side of it. Introduce 2-3 cm of the tip of the catheter gently into the upper lip and the areola, at each sucking, using the lip relaxation, making sure that the tip of the catheter does neither exceeds the tip of the nipple nor is placed below it. To hold the catheter in place at the mother's breast a masking tape or hypoallergenic tape can be used. The bottle with the milk should be below the level of the baby's mouth so that the milk rises with suction. If the bottle stays above, the milk falls by gravity, even without sucking. If the baby is sucking the milk from the bottle very quickly, tightening the tube with the help of the finger may reduce its gauge.<sup>9</sup>



Source: Bordalo (2008)<sup>13</sup>

**Figure 1.** Relactation using tube no. 4 and milk bottle.

The interviews for follow-up and assessments were performed in April 2012 by phone when the mothers were asked to answer some questions about the information received on the relactation technique. If they agreed, the following questions were put to them: 1) Have you used the technique? 2) If so, how long; if not, why did you not use it? If you tried relactation, did the milk restart to being produced?

This publication was submitted as an experimental report to the Ethics Committee for Research with Humans of the State University of Campinas (FCM/Unicamp) and was approved by EP/ARTICLE nº 008/2014 without restrictions for publication for being fully justified, and the Free Informed Consent Form was not required.

## Results

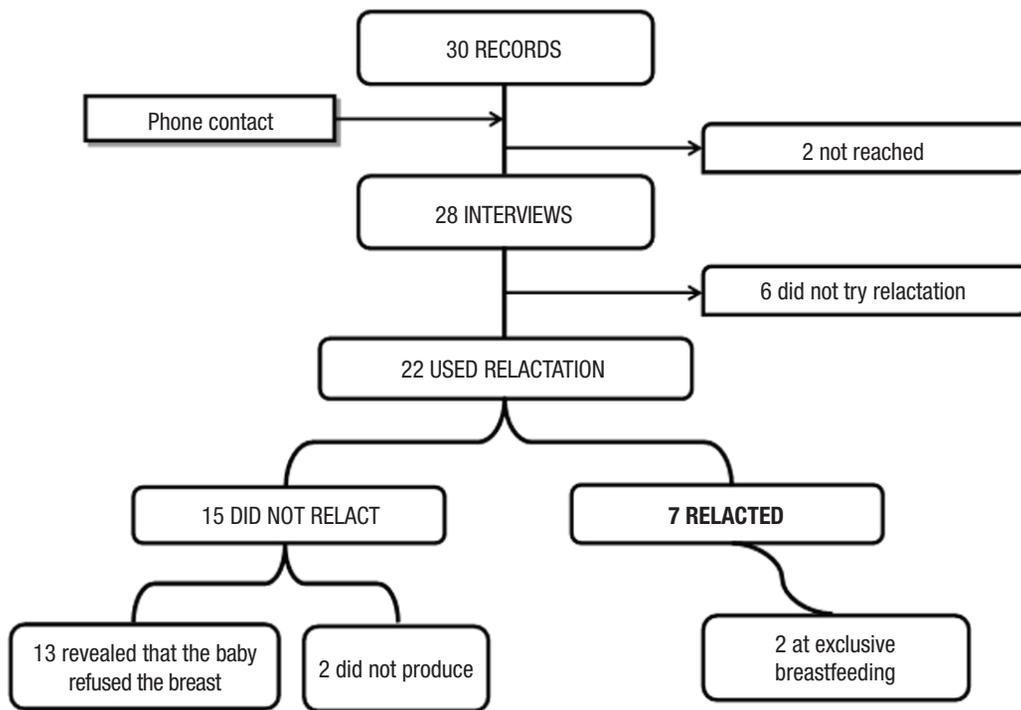
In the period preceding the phone interview, 30 mothers received guidance on the technique of relactation; of these, 93.3% (n=28) were interviewed, and 6.7% (n=2) were not reached by phone.

The average time between the guidance provided to the mothers or family members and the interview was 3.3 months ( $\pm$  2.3 standard deviation).

Among the respondents, 78.6% (n=22) tried relactation, and 21.4% (n=6) did not. Among the mothers that used the technique, 68.2% (n=15) did not succeed in producing milk. Of these women, 86.7% (n=13) reported that the child refused the breast.

Of the 22 mothers that used the technique, 31.8% (n=7) succeeded in resuming or increasing lactation. At the time of the interview, two of these mothers were exclusively on breastfeeding.

It is worth noting that the relactation rate of success in this study was 25.0% (n=7) of the total of mothers interviewed, i.e., one out of every four mothers succeeded, and about one out of every three mothers who tried relactation (n=22) succeeded. Figure 2 presents such results in absolute numbers.



**Figure 2.** Flowchart of the contact with the mothers who received information on relactation and distribution of the outcomes observed among those who used the technique. Program of Nutritional Care of Rio Verde-GO, according to the results obtained, 2012 (n=30)

## Discussion

Breast milk is recommended by the Ministry of Health and the World Health Organization as the best food for infants; however, breastfeeding can be stopped or hindered by physiological, socioeconomic, cultural, or emotional reasons.<sup>3,7,14</sup>

Either at the beginning of lactation or while it lasts or in case of adoption, some strategies may be required to start, resume or increase the supply of breast milk – in these cases, relactation could be the procedure to be adopted.<sup>8-11</sup>

In a literature review about the rate of success of relactation in Brazil, United States, Peru, India and Australia, it was found that of 1,295 women who used relactation, 1,136 succeeded in producing milk, accounting for 86.7 % of the total.<sup>12</sup>

The study by Alves, Figueira & Nacul,<sup>15</sup> which was conducted in a hospital in the state of Pernambuco obtained similar results to the present work, in which 27.6% of the mothers of a total of 163 succeeded in relactating. But another study conducted in India<sup>16</sup> reported that of a total of 139 mothers, 83% (n=116) succeeded in using the technique.

Context characteristics can explain, at least in part, the differences in the success rates found in various studies. Examples are the conditions and environments where guidance is provided (if in a hospital or outpatient setting, where the procedure can be demonstrated and performed with the mothers) and the cultural characteristics and breastfeeding support network in every region of the study.<sup>12,16</sup> In the present study, the procedure was explained to mothers, fathers or others at an administrative room, which can explain the lower rate of successful outcomes.

A study conducted in an Egyptian hospital with 200 women used three different approaches to deliver instructions on relactation and measured the outcomes by telephone. The success rates in relactating varied according to the type of approach used. The most effective educational strategy was problems solving (45%) and training (50%). The less effective was the warning approach (5%). The determinants of relactation that were identified were the mother's educational background, use of a cup for feeding without bottles or pacifiers and the involvement of the husband in the process. Only 10% relactated,<sup>17</sup> which is a percentage below the present study, possibly because of the low success rates among those that received the warning approach, which suggests that a receptive, warm approach and communication skills are all-important for the success of the technique. It is worth noting that family members and close relationships have a key role in the practice of relactation because of the motivation they bring to the mother.<sup>12</sup>

In the present study, a common claim was the baby's refusal of the breast. Infants' difficulty in latching on is a great challenge, because they are accustomed to the bottle.<sup>9</sup> They do not know how to suck it, do not recognize it, and so they refuse it peremptorily. When trying to bring the baby to the breast, he pushes it with the hands, crying and showing he does not want it.

Successful relactation seems to be easier when the baby is less than two months old, is not used to artificial teats, and when the time elapsed since interruption of breastfeeding is shorter.<sup>9</sup> However, according to a review carried out by Mariano,<sup>12</sup> the length of time without breastfeeding has more impact than the age of the baby on a successful relactation.

It is worth noting that the outcomes of this reported experience are general and do not consider all characteristics of the participants, such as the child's age, mother's age, participation and involvement of the family, skilled help, use or not of medications, and other devices to facilitate milk production, among others. Anyway, the results presented herein corroborate the evidences that relactation is a therapeutic possibility for children with special feeding needs.

This technique is very important and should be encouraged in various child healthcare units. Promoting breastfeeding results in the good health of the baby and prevents several diseases because of the numerous properties that the breast milk has, which besides being nutritious it has anti-infective and immunological properties, is low-cost and promotes the interaction between mother and child.<sup>13,18,19</sup>

It should also be noted that, because of the complex organization and management of the programs that provide formulas for infants at SUS (the Public Healthcare System in Brazil), it is necessary to have an extended vision, beyond its doors. Identifying possible critical points in the child healthcare system is crucial. Special attention should be given to the usual practice in public and private maternity hospitals regarding the supply of pre-lacteous foods,<sup>20</sup> which increase considerably the risk of developing food allergies,<sup>19,21</sup> resulting in the search for programs that supply formulas. It is also noticeable the generalized lack of knowledge of the professionals regarding the diagnosis of food intolerances and allergies,<sup>21-23</sup> and also about the clinical management of breastfeeding.<sup>24</sup> It is necessary, therefore, skilled assistance not only in hospital's maternity unit but during the prenatal care in the primary healthcare units and in the supplementary or private healthcare network.

It is crucial to implement a continuing training program for the professionals in order to promote and support breastfeeding and healthy supplementary foods in diverse spheres and care units, as well as for the professional qualification on clinical management of allergies and food intolerances.

## Conclusion

The findings of this study contribute to the discussion of the issue of prescribing and providing nutritional formulas at SUS, since guidance to relactation may certainly be part of the therapeutic choices of pediatricians, nursing staff, nutritionists, speech therapists and other health professionals that deal with the problem of early weaning.

Nursing brings numerous benefits to the baby's health, while reducing direct and indirect healthcare expenditures. So, the city executive bodies should recognize that it is much more advantageous to provide proper assistance to encourage breastfeeding to the mothers and their support network than deliver infant formulas.

In the reported experience, a significant portion of the mothers succeeded in relactating. But it should be noticed that despite the guidance on this practice the mothers encountered difficulties that impacted the final result, preventing milk production. The success of relactation might be extended to a breastfeeding support and encouragement network, which would enable the expansion of well-succeeded and cost-effective practices in the public healthcare system.

The continuity of actions is one of the major challenges for SUS. The high turnover of the managerial staff and unstable employment relationships make it difficult to maintain actions, and require continuing training for a skilled, sensitized and motivated staff.

NCP has been positive and effective in dealing with abusive prescriptions of formulas, sometimes unnecessary, and with the lack of encouragement to nursing, and tries to revert the situation by means of professional qualification to motivate the return to breastfeeding in the family by using relactation. Additional investments are required for continuing professional training by using the funds from the Funds for Food and Nutrition (FAN/MS).

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