

# Breastfeeding Counseling Based on Formative Research at Primary Healthcare Services in Mexico.

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## Research

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# Abstract

Breastfeeding rates in Mexico are among the lowest in Latin America with 14.4% for Exclusive Breastfeeding (EBF) under six months of age. It has been reported that rates has been decreasing among low-income and vulnerable population, where there is lack of healthcare assistance. Culturally appropriate counseling based on formative research has shown to be effective in improving breastfeeding. Our objective was to evaluate the effect of interpersonal counseling on EBF in a primary healthcare center in Tijuana, México.

## Methods

This was a randomized controlled trial pilot with a sample of mothers with infants under 4 months of age from a Primary Care Center. Participants were randomized to a 1) Control Group, receiving counseling about immunizations as well as routine infant feeding information, and 2) Intervention Group, receiving breastfeeding counseling based on previous formative research using a socio-ecological framework. Changes in breastfeeding attitudes, self-efficacy and EBF at 2 months post-intervention were evaluated.

## Results

Eighty mothers were included in the study (40 in each group). The mean age was 26.4 years for mothers and 1.4 months for infants. Breastfeeding obstacles reported were breastfeeding in public discomfort (23%), infant unsatisfied (23%), pain (19%), insufficient milk (15%) and returning to work (8%). We observed a significant improvement in breastfeeding attitudes ( $P=0.0001$ ), self-efficacy ( $P=0.018$ ) and EBF ( $P=0.001$ ). There was a 30% increase in EBF in the intervention group and 15% decrease in the control group post-intervention.

## Conclusions

Breastfeeding counseling based on formative research improved breastfeeding attitudes, self-efficacy and practices in this population. Breastfeeding should be promoted by well-trained health professionals with knowledge and skills to clearly communicate breastfeeding messages, and sensitivity to address women's needs according to their sociocultural context.

Since breastfeeding responds to health systems and socio-economic and cultural environments in which the mother lives; development and evaluation of programs to increase breastfeeding rates in low- and middle-income countries are necessary.

**Trial Registration** ANZCTR ID: 380462 (Under review). Retrospectively registered.

## Background

Breastfeeding is one of the public health interventions with maximal cost-benefit results (1). It has multiple benefits for infants, mothers, community and environments (2–5), and still, breastfeeding rates

are low (6). Particularly Mexico occupies one of the last places in Latin America with only 14.4% of exclusive breastfeeding at 6 months. This prevalence is even lower on the Northern region of the country with 10.6% (7).

Interpersonal Counseling (IC) has proven to be an efficient intervention to change breastfeeding rates (8–9). In a systematic review conducted in 2018 (9), where 63 interventions were analyzed, IC was associated with a decreased risk of early termination of exclusive breastfeeding at 4–6 weeks (RR = 0.79, 95% CI 0.72, 0.87) and at 6 months (RR = 0.84, 95% CI, 0.78, 0.91). Interventions were heterogeneous in terms of time duration, counselors' training, face to face or phone counseling, among other factors. However, since 76% of participants came from high income countries, the importance of carrying out interventions in low- and middle-income countries to analyze the effects of counseling in different contexts is strongly needed.

In order to scale up breastfeeding programs more efficiently in health systems, the gear model delineates integration of key aspects, such as promotion, training, research and program design (10). An evaluation based on this model was conducted in Mexico in 2016 (11), resulting in the following recommendations: 1) Community needs assessment, formative research, and pilot studies that take into consideration the key actors working in different sectors, 2) Development of primary care breastfeeding services in the health system, 3) Training of health professionals that not only focuses on theoretical fundamentals, but also communication and problem solving practical skills, 4) Integrate breastfeeding intervention into existing health programs such as immunization services, 5) Intervention monitoring and outcome evaluation.

This study is the continuation of a project originated from formative research to evaluate breastfeeding obstacles in Tijuana's low-income communities (12). A social-ecological framework was used and 10 main obstacles were identified, which were organized in: 1) Individual factors, such as pain or perception of insufficient milk (PIM); 2) Group factors, such as a lack of support from family members, health services and or at work; and 3) Social factors, such as discomfort from breastfeeding in public.

Social marketing principles were used to develop 10 educational messages with the purpose of changing breastfeeding attitudes, self-efficacy and practices. We tested these messages giving a brief presentation (1–2 min per message) to mothers who took their children under 2 years of age to daycare, finding a significant change towards more positive breastfeeding attitudes but not significant change in breastfeeding intentions or self-efficacy (13).

For this study, the educational material was adapted in order to increase self-efficacy, as well as adopting interpersonal counselling that focused on solving the main obstacle each mother had for breastfeed. We decided to implement this intervention during the immunization service at a primary health care center, since we found that this was a place where mothers would bring their infants at a sensitive time for receiving infant feeding information. In addition, this enable cost-effectiveness and sustainability improvement by integrating breastfeeding counseling into a successful pre-existing program.

Therefore, the objective of this study was to evaluate the effect of interpersonal counselling on exclusive breastfeeding (EBF) rates in infants younger than 6 months of age at a primary healthcare center in Tijuana, Mexico.

## Methods

### Design/ Participants/ Setting

This was a randomized [1:1] controlled pilot study conducted in a primary health care center in Tijuana, México, from October 2018 to March 2019. The study was approved by the Ethics Committee from the Facultad de Medicina y Psicología (FMyP) at Universidad Autónoma de Baja California (UABC) and by the Sanitary Jurisdiction No. 2.

The health center is part of Baja California's Health System Services, which are generally geared to assist people without health services provided by the social security system and people unable to afford private medical centers. To carry out this pilot, a center with a good inflow of people was selected, located in a strategic area where people from various socioeconomic backgrounds attend. The intervention was conducted in the same place where the immunization services were provided.

Mother-infant dyads that met the following inclusion criteria were selected: a) Request for immunization service at the health center, b) Mothers  $\geq 18$  years of age, c) Infants  $\leq 4$  months. This last criterion was established, considering the outcome would be measured 2 months after the intervention and the main interest was EBF, in that way if a baby had a maximum of 4 months at enrollment, after the 2 month-period EBF could still be assessed. Exclusion criteria were: a) Infants with low birth weight (<2500g) b) Infants with <38 gestational weeks, c) twins, and d) Maternal or infant contraindications to breastfeeding.

### Intervention

The intervention consisted in providing interpersonal counseling, which focused on solving the main breastfeeding obstacle that a mother might had. The information provided included brochures and / or posters (depending on the topic) that a nurse explained to the mother before the infant was immunized. The control group received immunization counseling as well as standard breastfeeding support.

Five nurses were trained for the intervention. First, a 4-hour session was held, where 2 medical interns provided general information along with the 10 main obstacles to breastfeed as well as recommendations to overcome them. A second 4-hour session was held, with a community promoter, focused on communication skills based on the breastfeeding counseling WHO guidelines. Supervised practice sessions were carried out after the 2 training sessions with women from the target population. After it was determined that there was consistency between all the trainees, they were set ready to start the intervention. Due to the workload of the health center, only 3 nurses completed the training and only 1 was able to participate in the intervention.

### Study process: Recruitment, randomization, follow-up

Mothers that brought their babies for vaccination services were approached in the waiting room of the health center. They were given the necessary information about the study and if they showed interest in participating, the informed consent was read and signed to obtain their permission. Subsequently, a questionnaire was applied to obtain socio-demographic data, as well as instruments to assess attitudes, self-efficacy and breastfeeding practices. In the end, they were asked for their main obstacle to breastfeeding from a list of 10, obstacles that were already observed and identified from this population. Two additional options were available: to add a different obstacle and / or to express not having any problem with breastfeeding.

Group assignation was conducted by the medical interns at the study site. Each time a new dyad was recruited, they opened sealed envelopes previously prepared by one member of the research team (DBG) using computer generated random numbers. Participants assigned to the intervention group received interpersonal counseling by the trained nurse, lasting between 5 to 10 min focusing on the main problem with breastfeeding. Participants assigned to the control group received information on vaccination. Both groups were scheduled for a follow-up vaccination service appointment.

Follow-up data was obtained by medical interns at the subsequent visit for vaccination service after the 2 month-period. If the participants had not attended the service, they were contacted by telephone to answer the questionnaires related to attitudes, self-efficacy and breastfeeding practices.

## **Outcome Assessment**

### **Breastfeeding practices**

The primary outcome was EBF 2 months after the intervention. The definition of EBF utilized was: “only breast milk or prescribed medications / vitamin supplements, without the use of water, juices, formula or solid food”. The evaluation was made based on a 24-hour recall. Other measured outcomes were any other type of breastfeeding and the main 3 obstacles for breastfeeding.

### **Breastfeeding attitudes and self-efficacy**

To measure the attitudes and self-efficacy for breastfeeding, two subscales of the “Breastfeeding Attrition Prediction Tool (BAPT)” (14-16) were used: Negative Attitudes towards breastfeeding and lactation control (self-efficacy). The construct and predictive validity of the full scale and of these subscales have been previously determined in their original version in English (14-15) and in one translated into Spanish (16). Internal consistency has been estimated with a Cronbach's alpha of 0.784 for the negative attitude sub-scale and 0.864 for the control sub-scale. The reproducibility of this instrument was evaluated in a sample of women with similar characteristics to the study population and an internal consistency of 0.65 for negative attitudes and 0.78 for control were found.

## **Co- Variables**

To measure social norms, a questionnaire from the Alive & Thrive Breastfeeding impact evaluation program in Vietnam was used (17). The socio-demographic variables collected were: occupation, marital status, level of education, place of birth, length of time living in Tijuana. Data from the mother: Number of children, type of delivery of the last child, and if mothers had received any information about breastfeeding from health care services. Infant data: Date of birth, sex, birth weight, and weeks of gestation at birth.

## **Data Analysis**

Based on the population that attends immunization services at the health center and the inclusion criteria, it was determined to use a sample of 50 mothers for the intervention and 50 for the control group. This sample size provided 80% power to appreciate a change of 20% in EBF prevalence.

We used SPSS v21 for data analysis. Descriptive statistics were used to measure central tendency and dispersion for continuous variables and frequencies for categorical ones. In the case of inferential statistics, continuous variables were analyzed with Student t-test and categorical variables with Chi-square. To evaluate the effectiveness of the intervention, Chi-square was used for EBF and Student t-test for attitude and self-efficacy scores.

To adjust covariates, we used regression models, linear regression for continuous variables (Attitudes and self-efficacy) and logistic regression for EBF. A Difference in Differences (DID) analysis was performed using regression models. The Difference in differences indicates the pre-post difference that occurs in the intervention group minus the difference in the control group.

## **Results**

### **Descriptive Data**

We reached 80 participants at the end of the 2 months follow up period from 112 included at baseline (71% retention). There were no significant differences when comparing characteristics of the remaining participants vs the ones who were lost at follow up, except for marital status, with a higher proportion of single women in the former (18% vs. 6%,  $p = 0.02$ ). See table 1.

Random assignment resulted in intervention and control groups with 40 participants each. The demographic characteristics were similar between them (Table 1). The mean age was 26.4 years for mothers and 1.4 months for infants. The proportion of infants'  $\leq 1$  month-old was 49%, 1-3 month 27%, and 3-4 months were 24%. The majority of mothers in both groups were homemakers / unemployed (73%), living with partner (63%), finished Jr (42%) and / or high school (32%), and had a vaginal birth (60%). No significant differences were detected in regard to the scores of breastfeeding practices, attitudes, self-efficacy and social norms between groups at baseline.

The main obstacles reported by participants were infant dissatisfaction along with breastfeeding in public (23%), followed by pain (19%), PIM (15%), and return to work (8%). When asked about a secondary

obstacle, the culture surrounding breastfeeding appeared in fifth place (6%), in a similar proportion as return to work. The great majority of mothers (92%) expressed at least one obstacle, 77% two obstacles and 44%, three obstacles. Regarding social norms, 83% of women expressed that most people important to them thought they should give EBF and that 44% of the women around them gave EBF.

### **Main Outcome: Exclusive Breastfeeding**

At 2-months post-evaluation, EBF was significantly higher in the intervention group compared to the control group (70% vs 22.5%,  $P=0.0001$ ). The DID for intervention compared to control was 45% ( $P=0.0001$ ) (Table 2). The main change is observed in the infant age group from 0 to 2 months with an increase in EBF of 33% (42 to 75%), 20% in the 2-4 months group (47 to 67%) and 17% with the 4-6 months group (33-50%).

### **Secondary Outcomes:**

#### **Attitudes, Self-efficacy**

There were significant differences in changes of attitudes and self-efficacy between the intervention and control groups. Participants in the intervention group decreased their negative attitudes toward breastfeeding ( $P = 0.0001$ ) and increased self-efficacy ( $P = 0.018$ ) compared with control group.

All the attitude items showed an improvement in the intervention group, represented as an increase in the percentage of disagreement with breastfeeding negative attitudes. We reported the positive effect in the intervention group compared to the control in the Final Difference column, where the difference from the control group to the intervention group is subtracted (Table 3). The items with greater effect were: item 4, feeding with formula is easy; item 14, babies fed with formula fill up easier; item 13, feeding with formula helps the father to be closer to his baby; and item 3, breastfeeding makes the breasts sag.

### **Obstacles**

The sample size was inadequate for sub-analysis of the primary obstacles to breastfeeding. However, we present the changes observed in the 5 most frequent obstacles (Table 4), where we can see that the most noticeable changes occurred in the case of pain, where there was an increase in EBF of 29% in the intervention group and a decrease of 37% in the control group; and in the case of breastfeeding in public, even though it started with high rates of EBF in both groups (67%), it increased to 89% in the intervention group, and it decreased to 33% in the control group

### **EBF according to obstacle**

We observed a consistency of attitudes and EBF changes in participants with the following obstacles: pain, breastfeeding in public, return to work and PIM (There is no item related to baby dissatisfaction in the attitudes questionnaire). There was a higher increase in the percentage of disagreement of negative

attitudes in the intervention group than in the control group, associated with changes in EBF practices post-intervention.

## Discussion

In this study, an improvement in EBF, attitudes, and self-efficacy was observed with a brief interpersonal counseling in a primary health care center. There was a 30% increase in EBF in the intervention group, resulting in 70% at 2 months post-intervention, being more pronounced in infants from 0–2 months with 75%. Although the subsample of infants from 4 to 6 months was small, a post-intervention EBF rate of 50% was observed at 6 months of age which is higher than the national average in Mexico.

The primary obstacles reported for breastfeeding in this study aligns with results of previous research from the region (12, 18–19) and other populations (20–21). Even though they had the option of adding another obstacle that was not listed, all the participants who reported having some difficulty with breastfeeding selected one of the 10 options presented. Among the 5 primary obstacles reported are those which were already in the top 5 positions in the previous investigation such as pain, PIM and breastfeeding in public. Infant dissatisfaction was noted more frequently, while aesthetic issues appeared less frequently compared to our previous formative research.

Although there was insufficient sample to perform sub-analysis among the obstacles to breastfeeding, changes were most notorious with pain and discomfort from breastfeeding in public. In the group of women who selected pain as their primary problem, there was an increase in EBF from 43 to 72% in the intervention group and a decrease from 50 to 13% in control. This shows the importance of dealing with this frequent problem, which can be a compelling reason for stopping breastfeeding, particularly affecting first-time mothers (22). In this study, 24% of primiparous women expressed that pain was their primary problem, compared to 14% of multiparous women. Taking into account that in our study 48% of the women were first-time mothers, this could have influenced the observed effect on lactation.

Discomfort from breastfeeding in public is as interesting problem, as it was one of the main obstacles (along with infant dissatisfaction) reported in 23% of the cases, but the baseline EBF levels were high (67%) among this subgroup. This might indicate that this is not an obstacle with a significant effect on breastfeeding cessation. However, at 2 months after counseling, the intervention group presented 89% of EBF and the control 33%. This additionally indicates the relevance of considering and addressing the problem, since if this is not done, it could eventually lead to breastfeeding suspension.

Times are changing and we must adopt more horizontal models of education and support for breastfeeding. These models should take into account the mothers' needs rather than reciting a list of benefits from breastfeeding or opting for more authoritarian and traditional ways; models in which health professionals tell mothers "what they should do" or even "scold them". Counseling has shown to be effective for breastfeeding and other health behaviors (9). In this study, the counseling provided was based on previous formative research that analyzed the main obstacles to breastfeeding in this population and the ways in which they would like to be supported. We took this information to create

educational material and training methods for the nursing staff, which aimed to solve the mother's main breastfeeding problems with empathy, taking into account the mothers' context, based on a socio-ecological model and the integrative theory of behavioral change.

Breastfeeding interventions have been recommended to be based on formative research. In Mexico, most of the studies in this topic have been conducted in the central region of the country. There is a classic intervention by Morrow et al (23), where exhaustive preliminary work was done to analyze the obstacles to breastfeeding in a population in this region of the country. Subsequently, 3–6 sessions of home counseling took place and a significant increase in the duration and exclusivity of breastfeeding was obtained ( $p = 0.02$ ). In a more recent study (24), nurses assigned to the immunization service were trained to give 5 messages on breastfeeding and complementary feeding after which an increase in the frequency of breastfeeding was observed in the intervention group ( $P = 0.001$ ).

Another recommendation for successful breastfeeding interventions is to integrate them with existing primary care programs in order to increase cost-effectiveness and avoid having to allocate more resources for a new program. Taking into account the real contexts of mothers' interactions with health professionals, which tend to be limited in time, vaccination time can be selected to discuss infant feeding. This strategy is more likely to generate sustainable programs (25).

There are other studies that have used interpersonal counseling when vaccinating infants (21, 26). In the Elliot-Rudder et al study conducted in Australia (21), nurses assigned to the immunization service were trained to perform counseling following breastfeeding WHO guidance. The sessions were held at the time that the mothers had their children vaccinated at 2, 4 and 6 months of age. The counseling used a motivational interview tool, which was adapted to the mothers' needs and decisions. Among the obstacles most frequently encountered were returning to work and community disapproval of breastfeeding in public. The results showed a significant increase in EBF at 4 months ( $p = 0.047$ ) in the intervention group that was lost by 6 months. The authors explained that it could be attributed to the controversy over whether complementary feeding should start at 4 or 6 months that had been occurring in Australia at the moment.

The postpartum period is one of special vulnerability for women. If you give them a lot of information about all the possible obstacles to breastfeeding, by the time you discuss what really matters to them, you may have already lost their attention-interest. There are other studies that have shown the effectiveness of doing counseling focused on the needs of women (27–28). In the Edmunds L. et al (20) study, pre and postnatal counseling was provided to women enrolled in the WIC program. The BAPT instrument was applied to assess what their main problems were and they were given personalized counseling based on that. The results showed that in the Hispanic subgroup, there was a significant increase in EBF at 30 ( $P = 0.04$ ) and 60 days postpartum ( $P = 0.002$ ) in the intervention group. The authors conclude that it is an effective, adaptable, reproducible, and sustainable initiative to improve EBF rates in the WIC program.

The successful result of our intervention is striking with just a short counseling session. There is another study carried out in Turkey (29) in which a session was given 3 days postpartum, but it was longer (30 min) and at the mother's home. The results showed an increase in EBF at 6 months ( $p = 0.04$ ) and a longer duration of breastfeeding in the intervention group ( $p = 0.001$ ). In the systematic review of counseling previously mentioned (9) the greatest effectiveness occurred with 4 or more sessions. In our study, the most notable changes were in longer EBF practice and lessened negative attitudes, with less change in self-efficacy. Probably with a greater number of sessions we could improve self-efficacy, perhaps by providing at least 3 sessions when mothers go to vaccinate their children at 2, 4 and 6 months.

Despite the efficacy shown in this study, we must be very cautious when interpreting the results since it was a pilot study in a primary health care center, with a population of women who predominantly did not have paid employment. Due to the high mobility in Tijuana, only 71% of the sample could be followed at 2 months. Other limitations of the study include lack of blinding in people who collected data at 2 months and a sample size that did not allow for sub-analysis of effects by obstacle type.

The strengths of this study relied on following the recommendations of the evaluation carried out in Mexico to follow the Breastfeeding Gear Model: a) Intervention based on formative research using a socio-ecological model 2) Use of counseling tools that includes communication skills, 3) Training of health personnel in primary care centers, 4) Integration with other programs such as immunizations, 5) Evaluation of breastfeeding practices and intermediate variables of behavioral change (Attitudes, self-efficacy).

## **Conclusions**

In this pilot study, we found an increase in EBF, attitudes, and self-efficacy 2 months after interpersonal counseling by immunization nurses in a primary health care center. In the next phase of the project we will expand this program to 10 health centers to evaluate the effectiveness with a larger sample.

Even though this is a small study, in a specific context, results show that effective interventions are possible when they are based on previous formative research and take into account the context in which people live. It is necessary to continue to develop and evaluate programs that increase breastfeeding rates in low- and middle-income countries, since breastfeeding, like various health behaviors, responds to the institutional, economic, cultural, and social environment in which mothers find themselves.

## **Declarations**

### **Ethics approval and consent to participate**

The study was conducted according to the guidelines laid down in the Declaration of Helsinki and all procedures involving human subjects were approved by Bioethics Committee at FMP UABC (1018/2018-1, approval June 26, 2018)

## Consent for publication

Not applicable

## Availability of data and materials

The datasets during and/or analyzed during the current study available from the corresponding author on reasonable request.

## A declaration of any potential competing interests

The authors declare that they have no competing interests

## Funding

No funding/ Not applicable

## Author's contributions

DB designed the study, supervised the collection of data and wrote the initial manuscript. Data collection was conducted by UR and EH. Data analysis and literature review was performed by DB, UR and EH. All authors contributed with substantial revisions to the manuscript and approved the final manuscript as submitted

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## Tables

Table 1  
Maternal and infant baseline characteristics of the study groups

	Intervention n = 40		Control N = 40		P
	Mean	SD	Mean	SD	
Maternal age (y)	27.1	7.3	25.6	5.9	0.31
Infant age (m)	1.65	1.5	1.23	1.5	0.21
Number of children	2	1.2	1.93	1.1	0.77
Birthweight (kg)	3.3	0.5	3.3	0.4	1.0
Gestational age at delivery (w)	39.3	1.3	39.3	1.1	1.0

	Intervention		Control		P
	%	n	%	n	
<b>Marital Status</b>					
Living with partner	60	24	65	26	0.69
Married	18	7	20	8	
Single	22	9	15	6	
<b>Occupation</b>					
Homemaker	80	32	68	27	0.46
Employed	20	8	22	9	
Student	0	0	10	4	
<b>Education</b>					
Elementary	5	2	10	4	0.63
Middle school	45	18	40	16	
High school	35	14	28	11	
University graduate	15	6	22	9	
C-section	35	14	45	18	0.49
Primiparous	48	19	48	19	1.00
Female infant	53	21	55	22	0.82
Received breastfeeding info	80	32	58	23	0.05
<b>Main obstacles</b>					
Infant dissatisfaction	23	9	23	9	0.88
BF in public	23	9	23	9	
Pain	18	7	20	8	
PIM	15	6	15	6	
Work	8	3	8	3	
None	8	3	8	3	
Data are mean $\pm$ SD values or percentage (n), for subjects with known information, as indicated.					
PIM: Perception of Insufficient Milk					

Table 2  
Intervention Changes in Breastfeeding Attitudes, Self-efficacy and EBF between groups

Effect	PRE		POST			DID	P**	
	Intervention	Control	P*	Intervention	Control			P*
EBF	40	37.5	0.82	70	22.5	0.0001	45	0.0001
Negative Attitudes	38.97	40.3	0.39	29.8	40.3	0.0001	9.17	0.0001
Self-efficacy	38.4	39.47	0.36	41.67	38.62	0.018	4.12	0.09
DID: Difference in differences								
* P for Intervention-Control Post Difference (t test or chi square)								
** P for DID (Regression Model)								

EBF Effect by Infant age*	PRE		POST		Intervention Pre-Post Difference	% Intervention Change
	Intervention	Control	Intervention	Control		
Total	40	37.5	70	22.5	30	75
0-2 month	42	50	75	33	33	79
2-4 month	47	33	67	11	20	43
4-6 month	33	0	50	0	17	51
* Infant age at baseline and at 2month post-Intervention						

Table 3  
Changes in Mothers' Negative Attitudes

Item	Negative Attitude	Intervention		Control		Pre/Post Differences		Final Difference
		%SD/D		%SD/D		Interv.	Ctrl	
		Pre	Post	Pre	Post			
1	BF ties you down	70	97.5	77.5	80	27.5	2.5	25
2	It's hard to BF in public	42.5	72.5	40	45	30	5	25
3	BF makes your breast sag	47.5	75	62.5	60	27.5	-2.5	30
4	FF is easy	30	70	35	27.5	40	-7.5	47.5
5	FF mothers get more rest	47.5	75	42.5	57.5	27.5	15	12.5
6	BF is time consuming	82.5	85	70	67.5	2.5	-2.5	5
7	BF makes going to work hard	35	65	10	12.5	30	2.5	27.5
8	BF causes pain	52.5	80	35	40	27.5	5	22.5
9	No one can help if you BF	35	67.5	47.5	57.5	32.5	10	22.5
10	FF mothers get into shape	60	82.5	62.5	62.5	22.5	0	22.5
11	BF is messy	57.5	77.5	67.5	60	20	-7.5	27.5
12	Hard to know if enough milk	62.5	82.5	55	52.5	20	-2.5	22.5
13	FF lets dad closer to baby	50	75	50	37.5	25	-12.5	37.5
14	FF babies easier to satisfy	32.5	70	27.5	30	37.5	2.5	35

BF: Breastfeeding, FF: Formula feeding  
SD: Strongly Disagree, D: Disagree

Table 4  
Changes in EBF according to main obstacle

	EBF Intervention		EBF Control		Negative Attitude Item	% Disagreement Post	
	Pre	Post	Pre	Post		Interv	Ctrl
Pain	43	72	50	13	8	80	40
BF in public	67	89	67	33	2	72.5	45
Work	33	100	0	0	7	65	12.5
Baby's lack of satisfaction *	33	56	33	22			
PIM	0	50	17	33	12	82.5	52.5
* There is no item in BAPT Attitudes instrument associated with the construct "baby's lack of satisfaction"							