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ATTITUDES AND KNOWLEDGE OF BREASTFEEDING IN MEXICAN-AMERICAN WOMEN: A PILOT STUDY

In this study, an interview questionnaire was administered to a random sample of Mexican-American women at the Community Clinic of Orange County, California. Interviews were administered by a bi-lingual, pre-med female student, and lasted approximately 20-30 minutes. The interview served to gather demographic data on all subjects, and to assess both attitudes and knowledge relative to breast and bottlefeeding of infants.

SUBJECTS

Subjects were 22 Mexican-American women, all of whom were primarily Spanish-speaking. Thirty-two percent were between the ages of 18-21, 36% were between the ages of 22-25, and 32% were in the age range of 26-33. Nine percent of the women were in their first trimester, 36% were in their second trimester, and 54% were in their third trimester. All except one reported they were married. Thirty-two percent had less than a third-grade education, 36% had completed elementary school, and 32% had completed some high school. Eighty-two percent of these women had been born in Mexico. Seventy-seven percent had been in the United States less than five years. Ninety-one percent lived with their husbands, 73% had one or more children already present in the house, and 36% lived with at least one additional relative. The combined annual income for these 22 families may be described as follows: 59% earned less than \$4,000. Thirty-six percent earned between \$5,000 - \$10,000, and only one family earned in the range of \$10,000 - \$12,000. Nine per cent of the spouses were unemployed, while the rest were factory workers. Seventy-three per cent of the women were full-time housewives.

SUMMARY OF RESULTS

Education about Breastfeeding: Forty-one percent of the sample stated that they had never read or been told anything about the best way to feed their baby. Fifty-nine percent stated that they had never received specific instructions about care of the breasts for nursing.

Ninety-six per cent stated that neither mothers, midwives, nor curanderos had ever discussed care of their breasts. None of the women had ever heard anything about how to nurse different kinds of babies. When asked to describe the composition of infant formula, subjects either did not know, or most frequently mentioned vitamins, minerals and powdered milk.

Breastfeeding Plans: Seventy-seven per cent of the women planned to breastfeed, the remaining 5 women planned to bottlefeed.

Breastfeeding History: Forty-one per cent of the women had previously breastfed at least one child, with 56% of these having breastfed one or two children, and 44% having breastfed three or more. These women reported that they had not followed fixed feeding schedules, but had nursed on demand, when the baby cried. Seventy-five per cent of those mothers who had previously nursed found the experience "enjoyable".

Opinions of Significant Others: Fifty-nine per cent of the spouses liked the idea of their wife breastfeeding. Thirty-six per cent of the women had never discussed the subject with their husbands, and five per cent of the husbands did not like the idea. Eighty-six per cent of the women reported that it would not bother their husbands if they nursed in public. Seventy-three per cent of the women reported that their mothers like the idea of their

breastfeeding, and 77% added that they themselves had been breastfed by their mothers.

Advantages and Disadvantages of Breastfeeding: Most women could not list any advantages to themselves in breastfeeding. Most women mentioned that the baby would receive a superior kind of food, and would therefore be healthier. Most mothers when asked could not imagine any disadvantages for the baby in breastfeeding; for the mother they mentioned undressing, and inability to work and nurse simultaneously as two disadvantages.

Knowledge About Breastfeeding: Seventy per cent of the women in our sample agreed with the following statements:

1. Breast milk provided protection against disease for my baby (77%).
2. Breastfeeding will help prevent allergies in my baby (77%).
3. Breastfeeding is healthier than bottlefeeding (91%).
4. Babies enjoy breastfeeding more than bottlefeeding (86%).
5. Breastfeeding will improve the emotional relationship between mother and child (32%).
6. Breast milk is the best food for a baby under the age of four months (91%).
7. If a mother who is breastfeeding eats certain foods, this can result in making her baby ill (73%).

However, only 20% or less of the women surveyed agreed with the following inaccurate or negative statements about breastfeeding.

1. Breastfeeding will endanger my sexual relationship with my husband (9%).
2. Breastfeeding will transmit disease to my baby (22%).
3. Breastfeeding is less nutritious than bottlefeeding (4%).
4. Formula has been treated with chemicals so that it is basically the same as breastmilk (18%).
5. Only poor women breastfeed their children (14%).
6. Breastfeeding can be good for the baby but it is a sacrifice for mother (23%).
7. Mothers that breastfeed their children do not have the pleasure of seeing the baby finish the bottle (23%).
8. Breastfeeding is uncivilized (0%).

Areas which reflect ambivalence or misconceptions in our subjects were as follows:

1. 82% of the women surveyed agreed that breastfeeding would make the breast sag.
2. 46% felt that breastfeeding would transmit bad feelings to the baby.
3. 27% still worried that women with small breasts could not breast feed.

4. 27% also worried that it was difficult to breastfeed a baby and maintain one's modesty.
5. 54% agreed with the statement that: so long as babies get enough milk, it doesn't matter whether they are breastfed or bottlefed.
6. 36% also felt that: These days it is not necessary to put up with the disadvantages and messiness of breastfeeding when there are prepared milks available.
7. 32% felt that bottlefeeding a baby instead of breastfeeding probably would encourage the father to take more interest in the new baby.
8. 77% of the women surveyed stated that if a mother who is breastfeeding suffers from "corajes" or "rabia" (strong negative emotions), these can actually kill her baby.
9. 46% of the women agreed that the majority of American women do not breastfeed their babies.

Personal Attitudes Toward Breastfeeding: Seventy-seven per cent of the women surveyed agreed with these statements reflecting positive attitude toward breastfeeding:

1. I like the idea of a baby sucking at my breast.
2. I like the idea of breastfeeding my baby.

Only 23% agreed with the following statements reflecting a negative attitude toward breastfeeding:

1. I would feel tied down if I breastfed my baby.
2. My breasts are so small that I would not be successful at breastfeeding.
3. Breastfeeding will make me get fat (14%).

In the following statements, more evidence of some possible attitudinal problems among Mexican-American women toward breastfeeding is indicated:

1. I speak often with my friends about breastfeeding. 41% of the women survey disagreed.
2. I am not comfortable with the idea of breastfeeding in public. Forty-one per cent of the women surveyed agreed with this statement.
3. I would like to breastfeed my baby but I work all day (32% agreed).
4. I would feel nervous breastfeeding my baby because I would never know how much milk the baby got (27% agreed).
5. I don't like the idea of a baby sucking at my breast (27% agreed).
6. If I was in Mexico, there would be more support for breastfeeding my baby (36.4% agreed).

Work and Breastfeeding: To the question: Has your work or financial consideration influenced your decision to breastfeed or bottlefeed, 77% of the women replied no, while 23% replied yes.

Those responding in the affirmative to the above question stated that if someone could show them a way to breastfeed and work at the same time, they would.

When asked whether they thought it was possible for a mother to work and breastfeed at the same time, 55% didn't know, 23% thought it was, and 23% disagreed.

When working mothers were asked, if you were not working, would you nurse your baby, 67% responded in the affirmative.

Nutrition and Breastfeeding: Ninety per cent or more of the women surveyed felt that the following foods were important in a nursing mother's diet:

Atoles, milk, chicken (91%).

Cheese, meat and fruit (96%).

Seventy per cent or more agreed that these vegetables were important.

Green vegetables (82%); bread (73%); tortillas (82%); fish (77%).

Only 59% felt that yellow vegetables were important, and only 68.2% agreed that frijoles (refried beans) were important.

Asked to choose an especially important food, most women responded milk.

When asked about what foods should be avoided by nursing mothers:

Hot sauce, chiles, and other spicy foods were commonly mentioned.

Discussion:

The small N involved in this pilot study precludes extensive generalization. However, data which both tend to confirm and disconfirm some of the research questions are stated in the proposal. What follows is an examination of these data, and some speculation on possible meanings. These questions are open to empirical verification through a larger, better controlled, and better designed study.

Subjects were fairly representative of the women we wish to survey, although 50% had been in the United States 5 years or longer, which would disqualify them on the basis of extensive acculturation to American society. Other parameters such as age, education, place of birth, living situation seemed to accurately reflect our patient population. While the comparatively low unemployment rate of spouses is representative of this community, a larger survey would probably show more employed women. However, considerable refinement of these demographic variables would be necessary in a follow-up study. For example, we feel it will be significant to know the specific place of origin in Mexico of subjects surveyed. Women coming from Mexico City probably will tend to display more educated views than women coming from Michuacan. Similarly, religious background may also be an important variable to consider.

Discussion(continued)

Most women surveyed had received little formal instruction about breastfeeding or related topics. Certainly it did not appear that breastfeeding had ever been discussed in detail with any of them either by mothers, relatives or by physicians.

Over three-quarters of the women surveyed responded that they intended to breastfeed their baby. This finding, however, is open to serious question. Anecdotal observation of this population indicates that perhaps half of the women under study will end up, in fact, not breastfeeding. In this pilot study, we had no way of assessing the relationship between attitude and practice. A follow-up, such as the one indicated in the proposed study, would determine whether any correlation really existed between rhetoric and behavior. Further, we must consider problems of demand characteristics in the present study, where the interviewer was strongly biased in favor of breastfeeding.

Forty-one per cent of our sample responded that they had previously breastfed at least one child. A larger survey will need to determine whether this is a representative proportion. Other studies have demonstrated a high positive correlation between breastfeeding an earlier child and decision to breastfeed the current infant. It will be important to determine how this predisposition interacts with the cultural shift of coming to the USA. Interestingly, 75% of those mothers who had nursed had also supplemented breast with bottle. Therefore, the follow-up study will need to define more carefully exactly what is meant by breastfeeding, and determine if combination bottle/breast is really widespread.

A large per cent of the sample (41%) had never discussed breastfeeding with their husband, or their husband was not supportive of the idea. We need to determine just how influential spouse's opinion is in the decision to breastfeed. There seemed to be strong maternal support for the daughter's decision to breastfeed, and indeed most women in the sample had themselves been breastfed by their mothers.

In contrast to some of our previously formulated hypotheses, most of the women surveyed (between 70% and 91%) seemed remarkably knowledgeable about the value of breastfeeding. Almost three-quarters of these mothers-to-be were aware that breast milk provides protection against disease; helps prevent allergies; is generally healthier than bottlefeeding; is more enjoyable for the infant; improves mother/child bonding.

Only a fifth or less of the sample believed in the following mythologies about breastfeeding: breastfeeding will harm their sexual relationship with their husband; will transmit disease to the infant; is less nutritious than bottle feeding; is uncivilized; is a sacrifice for the mother; or that formulas are essentially the same as breastmilk.

However, there were certain knowledge areas where the data were ambiguous. If confirmed in a larger study, these could indicate directions for education and attention by health care professionals. Most women still subscribed to the myth that nursing will make the breasts sag, and over a quarter still worried that women with small breasts could not nurse. Clearly, these might both be remediated by appropriate educational efforts. Another concern which might be worthy of attention was a prevalent feeling the bottlefeeding might involve the father more with the newborn. And, despite the fact that 91% of the women surveyed agreed with the statement: "Breastfeeding is healthier than bottlefeeding," over half also agreed that if the baby got enough milk, it didn't matter whether the baby was breastfed or bottle fed. Thus, one might question just how seriously the superiority of breast over bottle was viewed by our subjects.

Cultural factors also seemed to be important considerations. Over one-quarter of the women were worried about modesty while nursing. Almost half of the women believed that breastfeeding would transmit any bad feelings from mother to baby. And 77% believed that women suffering from "corajes," or "rabia" (strong negative emotions), could not only make their nursing babies ill, but might actually kill them. Finally, almost half of the women surveyed believed that most American women do not breastfeed. Therefore, particular attention to this area of cultural differences seems especially appropos.

In terms of personal attitudes, the break in the sample was fairly clear. Those women who planned on nursing felt positively toward it, while those women who did not plan to nurse felt negatively toward it. However, there was some evidence of ambivalence in this area as well, which justifies further exploration. For example, 41% of the women did not frequently talk about breastfeeding. We would need to investigate whether this statement represented a handicap to a good information flow about breastfeeding. Again, almost 41% of the women felt they were uncomfortable with the idea of nursing in public. This, coupled with the finding cited above, suggests that modesty may be an issue for Mexican-American women which needs to be addressed by proponents of breastfeeding. Almost a third of the women were concerned about integrating breastfeeding with work. If this proportion generalized to the larger population, it represents a significant number of women who might wish to breastfeed, but were dissuaded by their belief that working and breastfeeding were incompatible. Over a quarter of the women were uncomfortable with the idea of the baby sucking at their breast. This may be related to issues of modesty, or difficulty in acknowledging the sexual connotations of breastfeeding.

Examining the issue of working and breastfeeding in greater detail, we discovered that work indeed played an important role for those women deciding against breastfeeding. Many of the 23% who opted for bottlefeeding indicated an interest in nursing and 67% of these women responded in the affirmative when asked whether they would nurse their baby if they were not working. Several also agreed that if they could nurse and work at the same time, they would choose this option. Over half of these women did not know whether it was possible to nurse and work at the same time. Therefore, we have a preliminary indication that educational efforts targeted toward this specific problem might meet with a considerable degree of success.

In summary, although the pilot study was too small, and not sufficiently matched to criteria set forth in the proposed study to allow the formation of any definitive conclusions, it did suggest some critical directions for further

research. For example, attitudes of husband and mother seem important, and suggest that classes about breastfeeding should involve these significant others. Also, despite the fact that almost three-quarters of the subjects had only an elementary school education, they appeared to be remarkably knowledgeable about the advantages of breastfeeding. However, definite areas for further education also emerged. These involved greater attention to the father's role, and important cultural factors (the concept of corajes; the problems of modesty; and the prevalent belief that American women generally bottlefeed their babies). Although most women agreed that breastfeeding was healthier than bottlefeeding, they may not put much weight on this fact, as over half agreed with the statement that it really didn't make any difference which method of feeding was employed.

In terms of personal attitudes toward breastfeeding, our survey also uncovered areas deserving further exploration. Modesty continued to be an important theme. The difficulties of working while nursing also emerged as an area of concern.

Interviewer: _____

Date: _____

Code Number for Subject: _____

BREASTFEEDING INTERVIEW SCHEDULE

Background Information

Age: _____

Marital Status: single _____ married _____ separated _____ divorced _____

Education: What grade were you in when you left school? _____

Can you read Mexican newspaper? _____

Country of Origin: _____

What state did you come from in Mexico? _____ Size: _____

Who lives in home? _____

Number of Children: _____

Do people in your neighborhood have electricity? Now: _____ Mexico: _____

refrigeration? Now: _____ Mexico: _____

stores? Now: _____ Mexico: _____

plumbing? Now: _____ Mexico: _____

telephone? Now: _____ Mexico: _____

Number of years in the United States: _____

Annual income (combined income of husband and wife) Check one:

- | | |
|--------------------|---------------------|
| _____ Below 4,000 | _____ 10,000-12,500 |
| _____ 4,000-7,500 | _____ 12,500-20,000 |
| _____ 7,500-10,000 | |

Occupation of husband: _____

Occupation of self: _____

Religion: _____

Attend Church: Yes: _____ No: _____

Month of pregnancy: _____ Trimester: 1st _____ 2d _____ 3d _____

Education

Have you read or been told anything about the best way of feeding your baby?

Has anyone talked to you about breastfeeding?

What did they say?

Have you been given any specific instructions about how to prepare your breasts for nursing? By whom? What are they?

What have your mother, mid-wife or curandero told you about care of your breasts?

Has anyone taught you how to breastfeed different kinds of babies? (For example: Sleepy babies, small babies, boy versus girl babies, etc.)

What do you think formula is made of?

Breastfeeding Plans

Do you plan to breastfeed your baby? Why or why not?

Will the sex of your baby make any difference in your decision to breastfeed?

Would you breastfeed your baby if you had stayed in Mexico?

Did the majority of women in your home town in Mexico breastfeed their children?

Breastfeeding History

(If other children in family) Did you breastfeed your child or children?

How many children did you breastfeed? For how long?

How often did you nurse your infant(s)?

Did you supplement nursing with bottle feeding?

Did you find the nursing experience relatively pleasurable or relatively unpleasant? Why?

Opinions of Significant Others

What does your husband think about breastfeeding?

Is your husband concerned about your nursing in public?

Is there any way in which breastfeeding might affect your intimacy with your husband?

What does your mother think about breastfeeding? Your grandmother, other relatives? Please comment.

Did your mother breastfeed you or your siblings?

Advantages, Disadvantages of Breastfeeding

List three advantages of breastfeeding to you: To your child:

List three disadvantages of breastfeeding to you: To your child:

Please respond True or False to the following:

1. Breastfeeding will make my breasts sag.
2. Breastfeeding will transmit disease to my baby.
3. Breastfeeding will transmit bad feelings to my baby.
4. Breastfeeding is less nutritious than bottlefeeding.
5. Women with small breasts can't nurse.
6. Breast milk provides protection against disease for my baby.
7. Breastfeeding will help prevent allergies in my baby.
8. Breastfeeding is healthier than bottlefeeding for my baby.
9. Babies enjoy nursing more than they enjoy bottlefeeding.
10. Formula has been treated with chemicals so that it is basically the same as breast milk.
11. It is difficult to breastfeed a baby and keep your modesty.
12. Only poor women breastfeed their babies.
13. As long as they get enough milk, babies don't care whether they are breast or bottle fed.
14. Nowadays, it is no longer necessary to put up with the mess of breast feeding when easily prepared milks are available.
15. Breastfeeding can be good for the baby but is a sacrifice for the mother.
16. Mothers who breastfeed do not get the pleasure of seeing the baby empty the bottle.

- _____ 17. Bottlefeeding rather than breastfeeding is likely to encourage the father to take an interest in the new baby.
- _____ 18. The best way to calm a baby is to give him or her the breast.
- _____ 19. Breastfeeding will improve the emotional relationship between mother and child.
- _____ 20. Breast milk is the best food for a baby under four months.
- _____ 21. If a nursing mother eats certain foods, they can make her baby sick and possibly the baby can die.
- _____ 22. If a nursing mother experiences "corajes" (the rages), this can also make her baby sick.
- _____ 23. Most American women don't breastfeed their babies.
- _____ 24. Breastfeeding is uncivilized.

SAMPLE ITEMS TO BE USED IN DEVELOPING BREASTFEEDING ATTITUDE SCALE

Please respond True or False to the following statements:

- _____ 1. I talk frequently to my friends about breastfeeding.
- _____ 2. I am uncomfortable at the idea of nursing in public.
- _____ 3. I would like to breastfeed, but I work full time.
- _____ 4. I like the idea of breastfeeding my baby.
- _____ 5. I would feel too tied down if I breastfed my baby.
- _____ 6. I would feel nervous if I breastfed my baby, because I would never know how much milk the child was getting.
- _____ 7. I don't like the idea of a baby sucking at my breast.
- _____ 8. Breast feeding will make me fat.
- _____ 9. My breasts are too small for me to be able to nurse successfully.
- _____ 10. I like the idea of a baby sucking at my breast.
- _____ 11. I would rather nurse a baby girl than baby boy.
- _____ 12. If I were in Mexico, there would be more support for my nursing my baby.

Work and Breastfeeding

To what extent will work or financial considerations influence your decision to breastfeed or bottlefeed? In what way?

Do you think it is possible for the mother to nurse and work at the same time? Why or why not?

If you were not working, would you breastfeed your baby? Why or why not:

Nutrition in Breastfeeding

Are there any foods that should be avoided by the nursing mother? If yes, what are they and why?

Is there any food that is particularly harmful in the nursing mother's diet? Why?

Is there any food that is particularly important in the nursing mother's diet? Why?

Which, if any, of the following foods do you believe are important in the nursing mother's diet?

- | | | |
|-------------------------|-----------------|-------------|
| _____ atoles | _____ tortillas | _____ fish |
| _____ milk | _____ butter | _____ fowl |
| _____ green vegetables | _____ cheese | _____ fruit |
| _____ yellow vegetables | _____ beans | |
| _____ bread | _____ meat | |

Interviewer _____

Date: _____

Code Number for Subject _____

SIX-WEEK POST-PARTUM INTERVIEW SCHEDULE

- (1) How are you currently feeding your baby?
 - (a) Breastfeeding only
 - (b) Some breastfeeding, some bottlefeeding
 - (c) Bottlefeeding only

- (2) If you are now using both breast and bottlefeeding:
 - (a) How many times a day do you breastfeed? _____
 - (b) How many bottles of prepared milk do you give?
8 oz. _____
4 oz. _____

- (3) Which of the above three ways did you use since your baby was born?
 - (a) First week _____
 - (b) Second week _____
 - (c) Third week _____
 - (d) Fourth week _____
 - (e) Fifth week _____
 - (f) Sixth week _____

- (4) If you have stopped breastfeeding at any time, please explain.
 - (a) During which week (s)?
 - (b) Why?

- (5) Is your current way of feeding your baby the same way as you intended since you became pregnant?

If not, how did you intend to feed your baby?

What happened to make you change your plans?

- (6) Are you happy with the way you are currently feeding you baby?

Why?

- (7) If you are now breastfeeding your baby, do you have any plans to change?
_____ If yes, what change(s) will you be making, and when?
yes/no

- (8) Give the most important reasons for the way you have been feeding your baby since birth. _____

- (9) Were you employed? No _____ Yes _____ If yes, how many days per week and hrs. per day?

	<u>Days per Week</u>	<u>Hrs. per day</u>
(a) First week	_____	_____
(b) Second week	_____	_____
(c) Third week	_____	_____
(d) Fourth week	_____	_____
(e) Fifth week	_____	_____
(f) Sixth week	_____	_____