

Accuracy of Expectant Mothers' Predictions of Fathers' Attitudes Regarding Breast-feeding

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Background. Breast-feeding plays a well-recognized role in lowering infant morbidity and mortality during the first year of life. Previous research has demonstrated that fathers contribute to the decision of which infant feeding method will be used, and can be effective promoters of breast-feeding. A woman's decision to breast-feed her infant may rest on her assumptions of the father's attitude regarding this feeding method. As the perception of a negative paternal attitude toward breast-feeding may discourage some women from breast-feeding, this study was designed to determine whether a mother can accurately predict the father's attitude on this subject.

Methods. Subjects were 268 pairs of expectant mothers and fathers enrolled in childbirth preparation classes at five private hospitals in Houston, Texas. Participants individually completed pretested surveys assessing their attitudes regarding breast-feeding. Mothers' surveys additionally assessed their partner's attitudes toward breast-feeding.

Breast-feeding an infant during the first year of life can lower infant morbidity and mortality.¹⁻⁵ Previous research has demonstrated that the father influences the mother's decision about which infant feeding method is used, and can be effective in promoting breast-feeding.^{6,7} A woman's final decision to breast-feed or to bottle-feed her infant may rest on her assumptions of the father's attitude regarding that feeding method.⁷

Results. More mothers than fathers reported exclusive breast-feeding as their preferred feeding plan (69% vs 58%), whereas only 54% of partners both responded they preferred breast-feeding. Overall, fathers had more favorable attitudes toward breast-feeding than their partners predicted, but large numbers of fathers harbored misconceptions and negative attitudes toward breast-feeding. Mothers' predictions were little more accurate than random guessing in predicting their partner's response (range: 56% to 83%).

Conclusions. A mother's perception of her partner's attitudes toward breast-feeding influences her choice of infant feeding method. If she perceives that the father has a negative attitude about breast-feeding, she will probably not choose this method. Additional efforts to dispel misconceptions about breast-feeding should be made during childbirth preparation classes and prenatal visits.

Key words. Breast-feeding; attitude; fathers; mothers; patient education. (*J Fam Pract* 1993; 37:148-152)

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Methods

Subjects

The subjects were 268 pairs of expectant mothers and fathers enrolled in childbirth preparation classes at five private hospitals in Houston. These hospitals serve a predominantly middle- to upper middle-class population.

Submitted, revised, April 13, 1993.

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All participants were covered by medical insurance that included maternity and childbirth costs. Each pair was involved in a pregnancy classified as "low risk." The study was approved by the Institutional Review Board for Human Research at each hospital and at Baylor College of Medicine.

Questionnaire

Separate questionnaires were designed for mothers and fathers, each requiring no more than 15 minutes to complete. Questionnaires consisted of demographic, attitudinal, and opinion questions. Subjects checked the box that best described themselves for each category in the demographic portion; a Likert scale of response was used for the attitudinal and opinion portion.⁸ The reading level of the questionnaire (grade 4.7) was derived using the Gunning-Fogg index.⁹ Assessments of validity and reliability with the use of a Likert scale were performed on 25% of the total respondents. These assessments have been described previously.⁷

Data Collection

During the first session of a childbirth preparation course, enrolled couples were invited to participate in an anonymous survey examining their attitudes regarding infant feeding methods. If they agreed to participate, they were each given a questionnaire by a nurse educator to complete individually. One member each from six pairs of subjects declined to participate; therefore, those pairs were excluded from the study. The nurse educators collected all survey instruments and returned them weekly to one of the investigators (G.L.F.).

Method of Analysis

Data were analyzed in several phases. Initially, descriptive statistics provided a general frequency distribution for all items in each questionnaire. Analysis of missing data revealed no consistent pattern or bias of item nonresponse to individual questions.

The Likert scale of response (1 to 5) was collapsed to give 3 units for analysis: agree, neutral, and disagree. Chi-square analysis was performed to determine the significance of the distribution and association of each predicted and actual response.

For purposes of analysis, attitudinal and opinion variables were divided into two groups: (1) those reflecting positive associations with breast-feeding, and (2) those reflecting negative associations with breast-feeding. Also, those who indicated they did not prefer exclusive

Table 1. Demographic and Descriptive Characteristics of 268 Couples Enrolled in Prenatal Classes

Demographic and Descriptive Variables	Mother, %	Father, %
Race		
Black	7	7
White	81	81
Hispanic	8	6
Other	5	6
Preferred feeding plan		
Breast-feed	69	58
Formula-feed	10	15
Both	21	27
Discussed feeding plan with spouse	87	90
Previously breast-fed an infant	9	—
Baby's father wants me to breast-feed		
Yes	68	—
No	3	—
Don't know	21	—
Don't care	8	—
My mother wants me to breast-feed		
Yes	32	—
No	6	—
Don't know	30	—
Don't care	33	—

NOTE: Not all participants answered all questions.

breast-feeding (responding either formula feeding only or both) were combined into a single group.

To identify the ability of mothers to predict fathers' attitudes correctly, two-by-two tables were constructed for each response from each pair of participants. A prediction was defined as correct when a mother accurately predicted either a positive or negative response of her partner. The kappa statistic was then used to represent the proportion of potential agreement above and beyond chance.¹⁰ Kappa has a range of 0.0 to 1.0, with increasing values representing an increasing proportion of agreement above and beyond chance.

Results

The demographic and descriptive characteristics of all participants are summarized in Table 1. The majority of subjects were married (95%), white (mothers, 81%; fathers, 81%), and had planned this pregnancy (77%). More mothers than fathers reported exclusive breast-feeding as their preferred feeding plan (69% vs 58%), whereas in only 54% of couples did both prefer breast-feeding. This was the first child for 87% of couples, and 82% of women were in their 7th or 8th month of gestation at the time of this study. There were 14 pairs in which one or the other partner did not identify a planned

Table 2. Mothers' Predictions of Fathers' Attitudes Regarding Breast-feeding, per Survey Questionnaire Responses by 268 Couples

Survey Statement	Mother Anticipated That Father Would Agree with Statement, %	Father Agreed with Statement, %	Mother Correctly Predicted Father's Response, %	Kappa
Breast-feeding is acceptable in public.	18	24	76	0.29
Breast-feeding protects infants from disease.	75	74	72	0.25
Breast-feeding is better for the baby.	86	90	83	0.22
Respect women more who breast-feed.	37	49	63	0.25
Breasts were made for breast-feeding.	45	69	56	0.15
Spouse wants to know more about breast-feeding.	38	55	63	0.28
Breast-feeding helps with bonding.	72	87	70	0.11

method of feeding, accounting for the differences in totals seen between tables controlling for this variable.

For all subjects, mothers' predictions of fathers' positive responses are given in Table 2. Overall, fathers had more favorable attitudes and opinions toward breast-feeding than their partners predicted. A significant number of fathers, however, were unaware of the health benefits of breast-feeding, as demonstrated by over 25% not agreeing with the statement that breast-feeding protects infants from diseases. Also, over 30% of fathers did not agree with the statement that "breasts were made for breast-feeding." Mothers were correct 56% to 83% of the time in predicting their partner's response for each individual question (father's agreement or disagreement with statement). Kappa statistics indicated that these percentages were little better than chance alone in predicting fathers' responses.

A summary of all negative response variables for all

subjects is found in Table 3. Overall, fathers harbored fewer negative attitudes and opinions toward breast-feeding than their partners predicted. The one exception was that 30% of fathers agreed with the statement "Breast-feeding is bad for breasts," but only 26% of mothers anticipated that response. However, almost one third of all fathers felt that breast-feeding would make their partner's breasts ugly (30%, $n = 79$) and that breast-feeding would interfere with their sex life (32%, $n = 84$).

Fathers whose partners planned to breast-feed had fewer negative attitudes and opinions regarding breast-feeding than fathers whose partners planned to bottle-feed their infant. A trend existed indicating that mothers in the group that planned to breast-feed were better predictors of these attitudes and opinions; however, no statistically significant differences were found between the two groups.

Table 3. Mother's Prediction of Father's Negative Attitude Regarding Breast-feeding, per Survey Questionnaire Responses by 268 Couples

Survey Statement	Mother Anticipated That Father Would Agree with Statement, %	Father Agreed with Statement, %	Mother Correctly Predicted Father's Response, %	Kappa
Breast-feeding is bad for breasts.	26	30	65	0.14
Breast-feeding interferes with sex.	40	32	59	0.11
Breast-feeding makes breasts ugly.	35	30	67	0.25
Partner is less attracted if a woman breast-feeds.	16	9	79	0.01

Discussion

Many factors are involved in parental choice of an infant feeding method. Maternal perception of familial support for breast-feeding is an important factor in rates of initiation and eventual duration of breast-feeding.¹¹ Specifically, the father's support of lactation has been associated with both increased rates of initiation and prolonged duration of breast-feeding.¹²

Although some studies have been done regarding fathers' ignorance and negative attitudes toward breast-feeding,¹³⁻¹⁵ no study has sought to determine whether mothers actually know their partner's true attitudes regarding breast-feeding, or are only assuming that they know what their partner thinks. Ultimately, it is the mother's *perception* of her partner's negative attitudes and opinions, whether real or imagined, that influences her decision to breast-feed their infant.

Our data establish that women are not able to accurately predict their partner's attitudes and opinions regarding breast-feeding (average = 68% correct), despite that almost 90% of both mothers and fathers reported that they had discussed infant feeding plans with their respective spouses. Misperceptions existed across the entire spectrum of attitudinal and opinion variables. A large percentage of women incorrectly predicted negative responses from the fathers, raising the possibility that the father's negative influence on breast-feeding is based on the mother's inaccurate perceptions. The decision to breast-feed is multifactorial and complex. Perception of a lack of spousal support may decrease enthusiasm for breast-feeding among women who had planned to initiate lactation.

Since most women decide on an infant feeding method before delivery, prenatal education offered to both mothers and fathers may provide the best opportunity to promote breast-feeding. Although fathers had more positive attitudes toward breast-feeding than mothers predicted, several misconceptions among a significant percentage of fathers existed. For these fathers, educational programs, ideally involving both parents, would have been beneficial. These programs should also teach fathers how to provide support and encouragement to their spouses during lactation.

Enrollees in childbirth coaching classes in private hospitals were chosen as subjects for this study. As the rates of breast-feeding have decreased in *all* segments of the US population over the last 5 years,¹⁶ we believed that this was an important study population. The health-information-seeking behavior of participants in this type of class, however, represents a "best case" scenario when compared with the behavior of the population as a whole. The provision of educational efforts to mothers

and fathers in populations not so easily reached is a greater challenge.

One limitation resulting from the cross-sectional design chosen for this study is the inability to draw with certainty conclusions about what may be temporal relationships. It is possible that in cases in which the mother is determined to breast-feed, she would have a greater influence on her partner's attitudes than the mother who feels neutral about breast-feeding. Nevertheless, previous studies have demonstrated the significant effect that fathers have on maternal decision-making regarding infant feeding choice.⁷

Most private hospitals offer some type of childbirth-preparation classes for expectant parents. However, the amount of time in these classes spent on the choice of infant feeding method varies. The majority of hospitals in our study offered an additional one-session short course on breast-feeding, but only expectant mothers were actively encouraged to attend. If more time were devoted to the subject of infant feeding methods during childbirth preparation classes, a greater opportunity would occur for mothers and fathers to make an informed joint decision regarding infant feeding method. Also, fathers should be actively encouraged to attend additional breast-feeding classes provided by hospitals. Future educational efforts should foster a mutual appreciation between parents of the required effort and potential benefits of breast-feeding.

Acknowledgments

Funding for this project was provided in part by Mead Johnson Nutritionals, Evansville, Indiana. We thank Laura Williams and Kate Dusek for their assistance in manuscript preparation.

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