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Baby-Friendly hospital practices and meeting exclusive breastfeeding intention

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Abstract

Objective—To describe mothers' exclusive breastfeeding intentions and whether Baby-Friendly hospital practices are associated with achieving these intentions.

Methods—In the 2005–2007 Infant Feeding Practices Study II, women completed a prenatal questionnaire and approximately monthly questionnaires through 12 months. Mothers met their prenatal exclusive breastfeeding intention if their duration after the hospital stay (excluding hospital supplementation) equaled or exceeded their intention. Primary predictor variables included 6 Baby-Friendly hospital practices: breastfeeding within one hour of birth, giving only breast milk, rooming in, breastfeeding on demand, no pacifiers, and information on breastfeeding support.

Results—Among women who prenatally intended to exclusively breastfeed (n=1457), more than 85% intended to do so for 3 months or more. However, only 32.4% of mothers achieved their intended exclusive breastfeeding duration. Mothers who were married and multiparous were more likely to achieve their exclusive breastfeeding intention, while mothers who were obese, smoked, or had longer intended exclusive breastfeeding duration were less likely to meet their intention. Beginning breastfeeding within one hour of birth and not being given supplemental feedings or pacifiers were associated with achieving exclusive breastfeeding intention. After adjustment for all other hospital practices only not receiving supplemental feedings remained significant (aOR=2.3, 95% CI=1.8, 3.1).

Conclusion—The majority of mothers who intend to exclusively breastfeed are not meeting their intended duration. Increased Baby-Friendly hospital practices, particularly giving only breast milk in the hospital, may help more mothers achieve their exclusive breastfeeding intentions.

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Contributor's Statement

All authors had technical input on the analytic design and contributed to and approved the final manuscript. CGP conducted the analysis and drafted the manuscript.

Keywords

exclusive breastfeeding; intention; duration; Baby-Friendly Hospital Initiative

Introduction

Breast milk is the best source of nutrition for young children and provides both short- and long-term health benefits.[1, 2] Infants who are breastfed are less likely to experience a variety of infections and to develop chronic conditions later in life.[3] Breastfeeding also provides environmental, economic, and maternal health benefits.[4] The World Health Organization (WHO) and American Academy of Pediatrics recommend that mothers breastfeed exclusively (only breast milk and medications or micronutrient supplements, but no other liquids or solids) for about the first six months of their infant's life.[1, 2] In the United States breastfeeding initiation rates have been increasing over the last several decades,[5] such that 75% of infants born in 2008 were ever breastfed. However, only 35% of infants were exclusively breastfed for 3 months and only 15% were exclusively breastfed for the recommended 6 months.[6]

Breastfeeding intention is a strong predictor of infant feeding outcomes. Multiple studies have documented that women who prenatally intend to breastfeed are more likely to initiate and to continue breastfeeding.[7-10] In the U.S., approximately 80% of women intend to breastfeed. [11] However, less is known about intended duration. It is unclear whether the low prevalence of continued exclusive breastfeeding is because women do not intend to exclusively breastfeed for the recommended 6 months, or because other factors interfere with them meeting their intended duration of exclusive breastfeeding

In 1991 WHO and UNICEF developed the Baby-Friendly Hospital Initiative, which outlines 10 steps hospitals should implement to support breastfeeding.[12] Several studies have demonstrated that implementation of Baby-Friendly maternity care practices is associated with increased rates of exclusive breastfeeding.[13, 14] To our knowledge, only one study in the U.S. has examined whether Baby-Friendly hospital practices are associated with a mother's achievement of her own exclusive breastfeeding intention. Declercq *et al*, used data from the Listening to Mothers II survey, which interviewed mothers at, on average, 7 months post-partum, and asked retrospectively about exclusive breastfeeding intention and exclusive breastfeeding at 1week post-partum.[15] They found that approximately 60% of women intended to exclusively breastfeed (no data were available on intended duration of exclusive breastfeeding), with only half meeting this intention at 1 week. Experiencing 6–7 Baby-Friendly hospital practices was associated with a six-fold increase in achieving exclusive breastfeeding intention at 1 week among primiparous women, and a two-fold increase among multiparous women, compared to women who experienced none or one of the steps.[15]

Our objectives were to describe prenatal exclusive breastfeeding intention, including intended duration, and the association of Baby-Friendly hospital practices with achievement of these intentions. This analysis builds on the findings by Declercq *et al*, as exclusive

breastfeeding intentions were asked before women gave birth, and we were able to assess whether women met their own intended duration of exclusive breastfeeding.

Methods

Study sample

We analyzed data from the Infant Feeding Practices Study II (IFPS II), a longitudinal survey of U.S. mothers of healthy singletons, which was conducted from 2005 through 2007 by the Food and Drug Administration in collaboration with the Centers for Disease Control and Prevention. Women were recruited in their third trimester of pregnancy through a consumer-opinion mail panel. Eligibility criteria included that the mother be at least 18 years old, the mother and infant be without medical conditions that would affect feeding, and the infant be born after at least 35 weeks gestation and weigh at least 5 lbs. Each IFPS II participant was mailed one prenatal and 10 postnatal questionnaires at approximately monthly intervals that asked about various infant feeding and care practices. Extensive details of the IFPS II methodology and sample have been published previously.[16] Although the IFPS II sample does include women from around the country with varying socio-demographic backgrounds, 84% of the sample is white, compared to 72% nationally in 2010.[17] Further, women who participated in IFPS II were more likely to be employed, older, and of higher education compared to U.S. mothers of infants born in 1998-2000.[16]

Exclusive breastfeeding intention and achieved intention

As a part of the prenatal questionnaire, women were asked “What method do you plan to use to feed your new baby in the first few weeks?” Our classification of women that intended to exclusively breastfeed refers to those who answered “breastfeed only” to this question; other response options were “formula feed only,” “both breast and formula feed” or “don’t know yet.” Women who intended to exclusively breastfeed were further asked “How old do you think your baby will be when you first feed him or her formula or any other food besides breast milk?” which we used to categorize intended duration of exclusive breastfeeding (<1 mo, 1–2 mo, 3–4 mo, 5–6 mo, ≥7 mo).

The neonatal questionnaire asked mothers about experiences and infant feeding practices during their hospital stay. We assessed exclusive breastfeeding during the hospital stay determined both by how mothers reported they were feeding their infants when they left the hospital and by whether they reported the hospital giving any formula, water, or glucose water to their infants. Each of the postnatal surveys (administered at approximately 1, 2, 3, 4, 5, 6, 7.5, 9, 10.5 and 12 months) included a food frequency chart that referred to an infant’s intake within the past 7 days. Infants were considered to be exclusively breastfeeding at each survey time point that they received only breast milk but no other food or liquid. Exclusive breastfeeding duration was estimated as the midpoint of infant age between the last time the mother indicated exclusive breastfeeding and the first time she indicated she was not exclusively breastfeeding. As we were interested in looking at the effect of maternity care practices, including hospital supplementation, on achieved exclusive breastfeeding intention, our calculation of exclusive breastfeeding duration included only how the mother said she was feeding her baby when she left the hospital and did not include

hospital supplementation. For example, a mother may have reported that her infant received formula or water in the hospital, but that she was exclusively breastfeeding when she left the hospital and continued to do so for 4 months; we classified this as an exclusive breastfeeding duration of 4 months. A mother was categorized as having met her prenatal exclusive breastfeeding intention if her achieved duration was greater than or equal to her intended duration.

Predictor variables

The main predictor variables were factors consistent with 6 of the 10 Baby-Friendly hospital practices. These included mothers initiating breastfeeding within one hour of birth (step 4), the hospital giving no food or drink other than breast milk unless medically indicated (step 6), rooming in (step 7), breastfeeding on demand (step 8), giving no pacifiers (step 9), and providing mothers with information on breastfeeding support (step 10). These data were based on mothers' self-report and were collected on the first postnatal questionnaire at approximately one month after delivery; data were not available on whether hospitals mothers delivered at were designated Baby-Friendly. More details on the questions used to represent these steps are available from DiGirolamo, *et al*.[18] Indicators of the other four Baby-Friendly practices were not available in the IFPSII survey. As all of the infants in IFPS II were healthy, we assumed no supplementation was medically necessary. Covariates included maternal age, race/ethnicity, poverty-to-income ratio, education, pre-pregnancy body mass index (BMI), parity, smoking status, participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Cesarean birth, marital status, and intended duration of exclusive breastfeeding.

Statistical analysis and sample

Prenatal and neonatal questionnaires, including prenatal feeding intention were available for 3006 women. Of these, 59.6% (n=1792) intended to exclusively breastfeed, 13.3% (n=401) intended to exclusively formula feed, 23.5% (n=706) intended to both breast- and formula feed, and 3.6% (n=107) were unsure of their infant feeding plans. All further exclusions and analyses were conducted only among women who intended to exclusively breastfeed (n=1792). Not all mothers in the IFPS II sample completed all questionnaires; 96 mothers indicated they were still exclusively breastfeeding on the last questionnaire that they completed. Sixteen of these had achieved their exclusive breastfeeding intention by this time and were included in the analysis, while 80 had to be excluded as we could not assess whether they had met their exclusive breastfeeding intention. Mothers were additionally excluded from the analysis if they were missing data on feeding method when leaving the hospital (n=7), on experience of Baby-Friendly hospital practices (n=126), or on covariates (n=158). Mothers may have had missing data on more than one variable, giving a final analytic sample of 1457. Mothers who intended to exclusively breastfeed and were excluded from the analysis for missing data were more likely to be multiparous and less likely to participate in WIC compared to mothers that were included in the analysis; other characteristics were similar between the groups.

SAS 9.2 (SAS Institute, Inc, Cary, NC) was used for all analyses. We used logistic regression to describe maternal characteristics associated with meeting exclusive

breastfeeding intention, and to assess the association of Baby-Friendly hospital practices with achieving exclusive breastfeeding intention. Adjusting for covariates, we modeled each hospital practice separately, as well as all together in a fully adjusted model. Previous research suggests this association may vary by parity.[15] In the fully adjusted model a chunk test of all two-way interactions between hospital practices and parity was done using the log likelihood method.[19] Overall these interaction terms were not significant ($p<0.05$), so the interaction terms were dropped. We also calculated the percent of mothers achieving their exclusive breastfeeding intention by the number of Baby-Friendly hospital practices experienced, and modeled the number of practices experienced on achieving intention, adjusting for covariates.

Results

The majority of women in the sample were 25-34 years old, white, married, and had some education beyond high school (Table 1). Approximately half were overweight or obese and one-third were participating in WIC. Experience of Baby-Friendly maternity care practices ranged from 46.9% for pacifiers not being given to 72.8% receiving information on breastfeeding support.

More than 85% of mothers intended to exclusively breastfeed for at least three months, while 57.8% intended to exclusively breastfeed for at least five months (Table 2). Regarding achieved duration of exclusive breastfeeding, 45.3% of mothers exclusively breastfeed for at least three months, and 24.9% exclusively breastfed for at least five months. Only 1.1% of mothers intended to exclusively breastfeed for less than one month, yet this is how long 41.6% exclusively breastfed. Overall, 32.4% of mothers in our sample met their own exclusive breastfeeding intention after the hospital stay.

In adjusted analyses, mothers who were married and multiparous were more likely to meet their exclusive breastfeeding intention, while those who were obese, smoked, and had longer intended durations were less likely to meet their intention (Table 3). In analyses adjusting for maternal characteristics, breastfeeding initiation within one hour of birth (aOR=1.4; 95% CI 1.1, 1.9), no food or drink other than breast milk being given to the infant (aOR=2.5; 95% CI 1.9, 3.2), and no pacifiers given (aOR=1.3; 95% CI 1.1, 3.1) were associated with achieving exclusive breastfeeding intention (Table 4); rooming-in was borderline significant (aOR=1.2; 95% CI 1.0, 1.6). When adjusting for all other hospital practices in addition to maternal characteristics, only receiving no food or drink other than breast milk remained significant (aOR=2.3; 95% CI 1.8, 3.1). Based solely on how mothers reported they were feeding their babies, 84.6% of mothers said they were exclusively breastfeeding when they left the hospital. However, using a more strict definition that did not allow for any supplementation while in the hospital, only 59.9% of mothers were truly exclusively breastfeeding in the hospital (data not shown).

The percent of women who met their own exclusive breastfeeding intention after the hospital stay increased by number of Baby-Friendly hospital practices experienced (Table 5), from 23.4% who experienced zero to one practice to 46.9% who experienced 6 practices. In adjusted analyses, mothers experiencing six hospital practices had 2.7 times the odds of

achieving their exclusive breastfeeding intention compared to women experiencing zero to one practice.

Discussion

Whether asked retrospectively or prenatally, approximately 60% of mothers in both the Listening to Mothers II and the IFPS II surveys, respectively, reported that they intended to exclusively breastfeed. Additionally, we found that most mothers who plan to exclusively breastfeed intend to do so for at least three months, with over half intending to do so for longer. Despite these intentions, many mothers stop exclusively breastfeeding within a few weeks.

All of the women in this study intended to exclusively breastfeed, yet upon leaving the hospital 15% had already given up exclusively breastfeeding their infant, highlighting the importance of the first few days postpartum for establishing exclusive breastfeeding. The primary hospital practice associated with women not achieving their exclusive breastfeeding intention was infants receiving non breast milk feedings, which is consistent with the findings of Declerq, *et al*.[15] Despite all of the mothers in this analysis intending to exclusively breastfeed, and very few of their infants likely to have a medical need for supplementation, 40% reported that their infant received supplemental feedings in the hospital, which is inconsistent with best practices in maternal care. Hospital supplementation of breastfeeding infants is associated with delayed onset of lactation, suboptimal breastfeeding practices, perceived problems with breastfeeding during the hospital stay, and shorter durations of exclusive breastfeeding.[20-22] Yet hospital supplementation of breastfeeding infants is common; a recent report showed that 78% of U.S. hospitals are routinely supplementing healthy breastfeeding infants.[23]

There appeared to be a dose-response relationship between number of hospital practices experienced and achieving exclusive breastfeeding intention. However, much of this association may have been driven by hospital supplementation. The overall odds ratio for experiencing six steps versus none to one was 2.7, which is only slightly higher than the independent effect of hospital supplementation (aOR=2.3). To explore this further we calculated the odds of achieving exclusive breastfeeding intention by number of Baby-Friendly hospital practices experienced, excluding hospital supplementation. Those who experienced five practices had twice the odds of achieving their exclusive breastfeeding intentions compared to those who experienced 0-1 practices (aOR=2.0; 95% CI 1.2, 3.3); after further adjusting for hospital supplementation this relationship was no longer significant (aOR=1.4; 95% CI 0.8, 2.3).

In this analysis there was a substantial gap between exclusive breastfeeding intention and exclusive breastfeeding duration, with only 32.4% of women surveyed achieving their exclusive breastfeeding intention. Women who smoked, were obese, unmarried, or giving birth for the first time were less likely to exclusively breastfeed as long as they planned. These findings are not surprising as all of these characteristics have been associated with shorter durations of breastfeeding [24-26]. While hospital practices that support breastfeeding are certainly important, they alone are not sufficient for ensuring women achieve their

breastfeeding intentions. Even among women experiencing six Baby-Friendly hospital practices, less than half exclusively breastfed as long as they intended. For mothers to achieve their breastfeeding intentions they likely will need support from multiple entities including healthcare providers, communities, families, and employers.[27] Returning to work and poor workplace support are known to be associated with shorter durations of breastfeeding,[28] and may be associated with women not achieving their breastfeeding intentions. We did not have sufficient data to examine these factors; however, more than half of the mothers in our analysis had stopped exclusively breastfeeding by 2 months, which is before many women return to work. Future analyses may need to explore how returning to work and other environmental supports in the early post-partum period are associated with women achieving their exclusive breastfeeding intentions.

This study has several limitations and strengths. First, the mothers included in the IFPS II survey were drawn from a consumer opinion mail panel and are not nationally representative. However, it was not practical or economically feasible to randomly select a large sample of women in the third trimester of pregnancy, and IFPS II is the largest longitudinal study on infant feeding in the U.S. Second, we had to exclude mothers from the analysis who were missing data or who were still exclusively breastfeeding at the time they completed their last questionnaire if they had not yet reached their intended duration. Exclusion of these mothers may have introduced some bias into our analysis. We conducted a sensitivity analysis to assess how our estimates of meeting intention may have changed if data on exclusive breastfeeding duration were available from those mothers still exclusively breastfeeding at the time they completed their last questionnaire; if none of these mothers had met their intention, 30.1% overall would have met their exclusive breastfeeding intention, while if all of these mothers had met their intention, 35.3% overall would have met their exclusive breastfeeding intention. Additionally, exclusive breastfeeding duration was calculated based on the midpoint between when mothers reported exclusive breastfeeding and not exclusive breastfeeding, which may have led to some misclassification bias. Third, our estimates of hospital practices and infant feeding were based on maternal report. There may be some bias in maternal recall of hospital practices either because mothers inaccurately remembered certain practices, or because they were unaware of practices occurring when their infant was not with them. As we collected data at approximately one month after birth and monthly thereafter, the period of recall was short for all indicators which may have helped limit some recall bias. Additionally, prospective collection of seven day recalls of infant feeding have been shown to accurately reflect exclusive breastfeeding duration.[29] Fourth, as all infants in IFPS II had to have been born after at least 35 weeks, weigh at least 5 lb, and not have a medical condition that could affect feeding, we assumed that no infants would require formula in the hospital. However, mothers delivering late pre-term infants (in our sample, those 35 to <37 weeks) may have delayed lactogenesis, and late pre-term infants may have trouble latching and suckling.[30] We repeated our analyses excluding all late pre-term infants (n=61), and our findings did not change. Finally, we dichotomized achieving exclusive breastfeeding intention into those who met and those who did not meet their goal. It may be that differences exist among those who did not meet their goal and fell far short and those who did not meet their goal but were close. Further analyses may need to explore these distinctions.

Conclusion

Ideally, all women who intend to exclusively breastfeed would be supported to achieve their goals. The hospital stay, while often only two days, is a critical time for mothers to establish exclusive breastfeeding, and experiences there affect whether mothers exclusively breastfeed as long as they'd like to after leaving the hospital. Increased implementation of Baby-Friendly hospital practices, especially giving only breast milk in the hospital, may help more mothers achieve their exclusive breastfeeding intentions.

Abbreviations

BMI	body mass index
IFPS II	Infant Feeding Practices Study II
WHO	World Health Organization
WIC	Special Supplemental Nutrition Program for Women, Infants and Children

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What's Known on this Subject

The majority of mothers in the U.S. do not meet recommendations for exclusive breastfeeding; however, little is known about how long mothers intend to exclusively breastfeed or how hospital practices affect achieving these intentions.

What This Study Adds

Most mothers who want to exclusively breastfeed intend to do so for at least 3 months, but the majority are not meeting their own intended duration. Mothers are more likely to achieve their exclusive breastfeeding intention when their infant is not supplemented in the hospital.

Table 1

Sample characteristics of women who intended to exclusively breastfeed, Infant Feeding Practices Study II, 2005-2007 (n=1457)

Maternal age (y)	
18–24	18.5
25–29	36.9
30–34	28.6
≥ 35	16.1
Race/ethnicity	
White	88.2
Black	2.9
Hispanic	4.5
Asian/Pacific Islander/Other	4.4
Poverty to income ratio	
< 185%	35.9
185-349%	38.5
350%	25.6
Maternal education	
≤ High school	15.3
1–3 years college	39.3
≥ College graduate	45.4
Pre-pregnancy BMI (kg/m^2)	
<18.5	4.9
18.5–24.9	47.9
25.0–29.9	25.1
≥30	22.1
Primiparous	31.3
Smoker	5.6
WIC participation	32.1
Cesarean birth	26.1
Married	83.5
Baby-Friendly Hospital Initiative steps	
Breastfeeding initiation within 1 hr (step 4)	62.6
No food/drink other than breast milk (step 6)	60.3
Rooming in (step 7)	57.8
Breastfeeding on demand (step 8)	57.0
No pacifiers given (step 9)	46.9
Provide information on breastfeeding support (step 10)	72.8

Table 2

Among women who intended to exclusively breastfeed, intended duration of exclusive breastfeeding and achieved duration of exclusive breastfeeding, and percent who met goal, Infant Feeding Practices Study II, 2005-2007 (n=1457)

		Achieved duration					Met goal
Intended duration	**%**	**<1 mo**	**1–2 mo**	**3–4 mo**	**5–6 mo**	**≥ 7 mo**	**%**
<1 month	1.1	93.8	6.3	0.0	0.0	0.0	100.0
1–2 months	11.9	61.3	23.1	11.0	4.6	0.0	38.7
3–4 months	29.2	47.7	15.3	22.5	14.1	0.5	37.1
5–6 months	40.6	33.1	10.3	22.5	30.4	3.7	34.1
≥ 7 months	17.2	34.4	9.6	19.6	24.8	11.6	11.6
Total	100.0	41.6	13.1	20.4	21.3	3.6	32.4

Table 3

Odds of achieving exclusive breastfeeding intention by sociodemographic factors, Infant Feeding Practices Study II, 2005-2007 (n=1457)

	n	% met goal	aOR[a]	95% CI[b]
Maternal age (y)				
18–24	269	18.6	1.0	–
25–29	538	34.0	1.5	1.0, 2.3
30–34	416	36.3	1.4	0.9, 2.3
≥ 35	234	37.6	1.7	1.0, 2.8
Race/ethnicity				
White	1285	34.2	1.0	–
Black	42	9.5	0.4	0.1, 1.2
Hispanic	66	19.7	0.5	0.3, 1.0
Asian/Pacific Islander/Other	64	25.0	0.6	0.3, 1.2
Poverty to income ratio				
< 185%	523	30.8	1.0	–
185-349%	561	34.8	0.8	0.6, 1.1
350%	373	31.1	0.7	0.5, 1.0
Maternal education				
≤ High school	223	25.1	1.0	–
1-3 years college	573	27.4	1.0	0.6, 1.4
≥ college graduate	661	39.2	1.5	1.0, 2.3
Pre-pregnancy BMI (kg/m^2)				
<18.5	71	40.9	1.1	0.6, 2.0
18.5–24.9	698	35.1	1.0	–
25.0–29.9	366	32.2	0.8	0.6, 1.1
≥30	322	24.8	**0.6**	**0.4, 0.8**
Primiparous				
Yes	456	18.6	1.0	–
No	1001	38.7	**1.9**	**1.4, 2.7**
Smoker				
Yes	81	16.1	**0.5**	**0.2, 0.9**
No	1376	36.6	1.0	–
WIC participation				
Yes	467	23.6	0.7	0.5, 1.0
No	990	36.6	1.0	–
Cesarean birth				
Yes	380	27.6	0.9	0.7, 1.3
No	1077	34.1	1.0	–
Married				
Yes	1216	35.7	**1.7**	**1.1, 2.6**

	n	% met goal	aOR[a]	95% CI[b]
No	241	15.8	1.0	–
Intended duration of exclusive breastfeeding				
< 1 – 2 mo	189	43.9	1.0	–
3 – 4 mo	426	37.1	**0.6**	**0.4, 0.9**
5 – 6 mo	592	34.1	**0.5**	**0.3, 0.7**
≥ 7 mo	250	11.6	**0.1**	**0.1, 0.2**

[a] aOR=adjusted odds ratio; model adjusted for all other variables in the table and all Baby-Friendly hospital practices.

[b] CI=confidence interval

Table 4

Odds of achieving exclusive breastfeeding intention according to reported experience of Baby-Friendly hospital practices, Infant Feeding Practices Study II, 2005-2007

	n=1457					
	n	**% met goal**	**Model 1 aOR[a]**	**95% CI[b]**	**Model 2 aOR[a]**	**95% CI[b]**
Breastfeeding initiation within 1 hr (step 4)						
Yes	912	36.5	**1.4**	**1.1, 1.9**	1.3	0.9, 1.7
No	545	25.5	1.0	–	1.0	–
No food/drink other than breast milk (step 6)						
Yes	878	39.8	**2.5**	**1.9, 3.2**	**2.3**	**1.8, 3.1**
No	579	21.2	1.0	–	1.0	–
Rooming in (step 7)						
Yes	842	32.4	1.2	1.0, 1.6	1.1	0.8, 1.4
No	615	32.4	1.0	–	1.0	–
Breastfeeding on demand (step 8)						
Yes	831	34.4	1.1	0.9, 1.4	0.9	0.7, 1.2
No	626	29.7	1.0	–	1.0	–
No pacifiers given (step 9)						
Yes	683	35.1	**1.3**	**1.1, 1.7**	1.2	0.9, 1.5
No	774	30.0	1.0	–	1.0	–
Information on breastfeeding support (step 10)						
Yes	1061	33.8	1.2	0.9, 1.6	1.2	0.9, 1.6
No	396	28.5	1.0	–	1.0	–

[a] aOR=adjusted odds ratio. Model 1 adjusted for maternal age, race/ethnicity, poverty to income ratio, education, pre-pregnancy weight status, parity, smoking status, WIC participation, Cesarean birth, marital status, and intended duration of exclusive breastfeeding.

[b] CI=confidence interval

[c] Model 2 adjusted for the same factors as Model 1, plus all other hospital factors.

Table 5

Odds of achieving exclusive breastfeeding intention by number of Baby-Friendly hospital practices experienced, Infant Feeding Practices Study II, 2005-2007 (n=1457)

No. steps experienced	% met goal[a]	aOR[b]	95% CI[c]
0–1	23.4	1.0	–
2	26.0	0.9	0.5, 1.6
3	26.6	1.1	0.7, 1.8
4	32.7	1.5	0.9, 2.5
5	40.6	**2.1**	**1.3, 3.5**
6	46.9	**2.7**	**1.5, 4.8**

[a] Cochrane-Armitage trend test p<0.0001 for percent who met goal.

[b] aOR=adjusted odds ratio; adjusted for maternal age, race/ethnicity, poverty to income ratio, education, pre-pregnancy weight status, parity, smoking status, WIC participation, Cesarean birth, marital status, and intended duration of exclusive breastfeeding.

[c] CI=confidence interval