Original Investigation

Influence of Bedsharing Activity on Breastfeeding Duration Among US Mothers

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IMPORTANCE Some professional associations advocate bedsharing to facilitate breastfeeding, while others recommend against it to reduce the risk of sudden infant death syndrome and suffocation deaths. A better understanding of the quantitative influence of bedsharing on breastfeeding duration is needed to guide policy.

OBJECTIVE To quantify the influence of bedsharing on breastfeeding duration.

DESIGN, SETTING, AND PARTICIPANTS Longitudinal data were from the Infant Feeding Practices Study II, which enrolled mothers while pregnant and followed them through the first year of infant life. Questionnaires were sent at infant ages 1 to 7, 9, 10, and 12 months, and 1846 mothers answered at least 1 question regarding bedsharing and were breastfeeding at infant age 2 weeks.

EXPOSURES Bedsharing, defined as the mother lying down and sleeping with her infant on the same bed or other sleeping surfaces for nighttime sleep or during the major sleep period.

MAIN OUTCOMES AND MEASURES Survival analysis to investigate the effect of bedsharing on duration of any and exclusive breastfeeding.

RESULTS Longer duration of bedsharing, indicated by a larger cumulative bedsharing score, was associated with a longer duration of any breastfeeding but not exclusive breastfeeding, after adjusting for covariates. Breastfeeding duration was longer among women who were better educated, were white, had previously breastfed, had planned to breastfeed, and had not returned to work in the first year postpartum.

CONCLUSIONS AND RELEVANCE Multiple factors were associated with breastfeeding, including bedsharing. Given the risk of sudden infant death syndrome related to bedsharing, multipronged strategies to promote breastfeeding should be developed and tested.

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reastfeeding is associated with many benefits to the infant and mother. ^{1,2} The US Healthy People 2010 objectives for breastfeeding initiation and duration were updated in 2007 to increase the proportion of mothers who exclusively breastfeed their infants through age 3 months to 40% and through age 6 months to 17%. ³ The respective targets for Healthy People 2020 are 46.2% and 25.5%. ³ However, national rates for exclusive breastfeeding through ages 3 and 6 months have remained below these targets, at 33% and 13.3%, respectively. ⁴

The practice of bedsharing (a term often interchanged with *co-sleeping* and *co-bedding*⁵) is one factor positively associated with higher rates and prolonged duration of breastfeeding.⁶⁻⁹ Some experts, professional societies, and

groups recommend this practice to facilitate breastfeeding^{5,9,10} while others do not endorse this because of safety concerns for the infant.¹¹ The American Academy of Pediatrics guidelines for reducing the risk of sudden infant death syndrome (SIDS) and other sleep-related deaths recommend using a "separate but proximate sleeping environment" for infants.¹² In addition, the US Consumer Product Safety Commission recommends that infants sleep in cribs until they are 2 years old.¹³

Infant-parent bedsharing in the United States is common and on the rise. ¹⁴ Our recent findings from the Infant Feeding Practices Study II (IFPS II), ¹⁵ a large US longitudinal cohort study, show that bedsharing rates were 41.5% at 2 weeks, 34.0% at 3 months, and 27.0% at 12 months of infant age. More than 60% of mothers reported that one reason for bedsharing was

breastfeeding, whereas fewer than 10% were bedsharing to bottle-feed their infants. Although this finding suggested the potential beneficial role of bedsharing behavior on breastfeeding prolongation, we did not quantify the association. In this article, we evaluate and quantify the influence of bedsharing behavior on breastfeeding duration for the first year of infancy based on survival analysis using IFPS II data. We hypothesized that longer duration of bedsharing would be associated with longer duration of any and exclusive breastfeeding.

Methods

Study Population

The IFPS II was a longitudinal survey of 4902 women enrolled while pregnant, of whom 4267 qualifed for follow-up and 2847 (66.7%) completed at least 2 questionnaires in the 12 months following their infant's birth. The IFPS II sample was drawn from a nationally distributed consumer opinion panel with the following inclusion criteria: mother aged 18 years or older, singleton birth, neither mother nor infant had a health condition likely to affect infant feeding, gestational age at birth of 35 weeks or more, birth weight of 5 lb or more, and neonatal intensive care unit stay of 3 days or less. Because the sample was not randomly selected, an original analysis was conducted to compare it with respondents to the National Survey of Family Growth cycle 6 (1998-2000), who were 18 to 44 years old at the time of their most recent delivery of a single infant. Relative to this random sample of US mothers, the IFPS II sample overrepresents mothers who have higher income and are older, of white race, more highly educated, and employed, while other factors (eg, marital status) are similar. Details of this analysis and further study details are published elsewhere.16 The study was approved under expedited review by the Research Involving Human Subjects Committee of the Food and Drug Administration, Silver Spring, Maryland. The elements of informed consent, including purpose, time required, amount of the incentive, the voluntary nature of participation, and that no identifiable information would be made public, were included in materials sent to participants. Consent was assumed if the participant returned a questionnaire; a signed statement was not required.

Briefly, mothers were mailed 1 prenatal and 10 postnatal questionnaires at approximately monthly intervals. Breastfeeding behaviors were asked in each postnatal questionnaire. Infant sleeping arrangements were asked in the postnatal questionnaires administered at 3, 6, 9, and 12 months, with the 3-month questionnaire asking about the arrangements for 4 distinct periods: infant age 2 weeks, 1 month, 2 months, and 3 months (currently). On the 6-, 9-, and 12month questionnaires, participants were asked to report arrangements "in the past 4 weeks." Questionnaires that were returned outside of predetermined infant age ranges were excluded (n = 71) to minimize misclassification of responses by infant age. Acceptable age ranges were 11 to 21 weeks for 3 months, 22 to 33 weeks for 6 months, 34 to 46 weeks for 9 months, and 47 to 62 weeks for 12 months. The analytical sample (1846 for any breastfeeding and 1800 for exclusive breastfeeding) was limited to mothers who were breastfeeding at 2 weeks, had at least 1 measure of bedsharing, and answered the questionnaires with bedsharing questions within the acceptable infant age range.

Outcome Measures

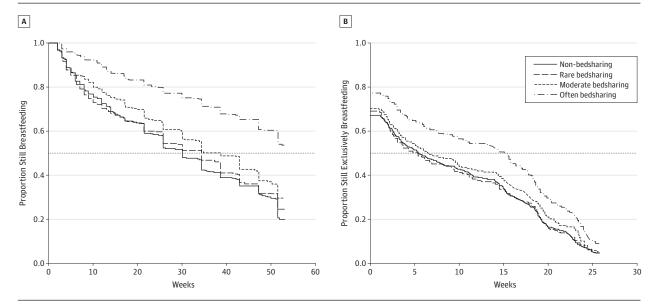
Two measures of breastfeeding duration were constructed by combining the information from 10 postnatal questionnaires: duration of any breastfeeding within the first year of infancy and duration of exclusive breastfeeding within the first 6 months. Mothers were asked how often their infant was fed breast milk and other forms of milk in the past 7 days in each questionnaire, as well as how old their infant was when they completely stopped breastfeeding and pumping milk for their infant. Duration of any breastfeeding was the motherreported infant age when all breastfeeding stopped or was last reported within the first year of infancy. Duration of exclusive breastfeeding was the infant age within the first 6 months when the mother last reported feeding the infant only breast milk. Exclusive breastfeeding is recommended only for the first 6 months of life,17 and virtually all mothers introduced solid foods by 6 months; therefore, we measured exclusive breastfeeding only through 6 months. Because we were interested in the mothers' behaviors, infants who were given formula in the hospital but were exclusively breastfed after discharge were considered exclusively breastfed in our analysis. For some mothers, the breastfeeding outcomes were right-censored, meaning that we did not observe the time of breastfeeding cessation because the mothers were unavailable for follow-up during the study period or were still breastfeeding or exclusively breastfeeding at the end of the duration period (ie, >53 weeks for any breastfeeding or >25.8 weeks for exclusive breastfeeding). The 2 observed breastfeeding durations together with their censoring indicators are the survival outcomes that we analyze in this article.

Other Variables

Bedsharing was defined as the mother lying down and going to sleep with her infant on the same bed or other sleeping surfaces (excluding bedside co-sleepers) for nighttime sleep or during the major sleep period. This was identified based on postnatal questionnaire responses at 2 weeks and at 1, 2, 3, 6, 9, and 12 months. All women were asked if "you ever lie down or sleep with your baby at night." The mothers responding no were considered non-bedsharers. The mothers who answered yes (including on the same bed or other sleeping surfaces) were asked, "When you and your baby lay down or slept together, did you usually: 'Stay with the baby and also sleep' or 'Keep awake until the baby was asleep or finished feeding and then put the baby somewhere else while you slept?" Women who reported that they "usually stay with the baby and also sleep" formed the group defined as bedsharers in this study. Women who reported staying awake were considered non-bedsharers. Contradictory responses (eg, both yes and no answers), ranging from 0.3% to 2.0% at various months, were assigned as missing and not included in the analysis.

We measured bedsharing behavior in 2 dimensions: infant age in weeks when bedsharing was first reported and cu-

Figure. Kaplan-Meier Curves on the Duration of Any Breastfeeding Within the First Year (A) and Exclusive Breastfeeding Within the First 6 Months (B)



Categories are as follows: non-bedsharing (score = 0), rare bedsharing (score = 1 or 2), moderate bedsharing (score = 3 or 4), and often bedsharing (score = 5, 6, or 7).

mulative bedsharing score, defined by counting the number of times the mother said she was bedsharing at the 7 ages when it was measured. This score was used as a proxy for duration of bedsharing because the true duration based on actual time was difficult to calculate, given that the time between bedsharing measures varied and mothers did not necessarily practice bedsharing continuously. We used the cumulative bedsharing score as a continuous variable (ranging from 0-7) in all model fitting and results reporting (as listed in the tables) but categorized it into 4 groups for ease of display in the **Figure**: non-bedsharing (score = 0), rare bedsharing (score = 1 or 2), moderate bedsharing (score = 3 or 4), and often bedsharing (score = 5, 6, or 7).

We controlled for the following 10 covariates in our study: mother's age, educational level, race, marital status, income (as percent of the federal poverty level), smoking status, and whether she returned to work in the first year, breastfed other children, prenatally planned to exclusively breastfeed, and had any breastfeeding problems in the first 2 weeks. These covariates were obtained directly from the mothers' questionnaire responses.

Statistical Analysis

Survival analysis was used to quantify the influence of bedsharing activity on the 2 measures of breastfeeding duration (in survival analysis terms, the length of time before breastfeeding cessation) within the study periods, accounting for the right-censored characteristic of our outcomes. To explore the relationships between covariates and outcomes, we used Kaplan-Meier plots and log-rank tests. Kaplan-Meier curves show how the fraction of mothers still breastfeeding changed over time in various subgroups of mothers defined by each covariate. For confirming and quantifying the effects of bedsharing on breastfeeding durations, we applied univariable and multivariable Cox regression models. ¹⁸ Time-dependent Cox regression models were developed here to take into account the time-varying nature of the cumulative bedsharing score and age of starting bedsharing. *P* < .05 was used to identify statistically significant findings. Only the cumulative bedsharing score before the mother's breastfeeding cessation event was adopted in model fitting to ensure the correct temporal order. For example, if a mother stopped breastfeeding at month 6 and began bedsharing at month 9 and continued through month 12, she was counted as not bedsharing when evaluating bedsharing's effect on breastfeeding duration. All analyses were conducted with SAS, version 9.1 (SAS Institute).

Results

The breastfeeding, bedsharing, and demographic characteristics for our analytic sample are summarized in **Table 1**. Most mothers had at least some college education, were of non-Hispanic white race, were married, were employed postpartum, did not smoke postpartum, prenatally planned to exclusively breastfeed, and had breastfed another child. Almost 90% reported having breastfeeding problems in the first 2 weeks postpartum. The mean infant age for reporting first bedsharing was 8.3 weeks, and the mean count of bedsharing was 2.3 periods. In this sample of mothers who breastfed at 2 weeks, the mean duration of any breastfeeding was 30.7 weeks, with 36.5% of the cases censored. The mean duration of exclusive breastfeeding was 9.7 weeks, and 6.9% were censored.

On average, the durations of any and exclusive breastfeeding were longest in the often bedsharing group, intermediate in the moderate bedsharing group, and shortest in the rare and

Table 1. Breastfeeding, Bedsharing, and Demographic Characteristics Among 1846 Participants^a

Variable	Value
Breastfeeding duration, wk	
Any breastfeeding within the first year, mean (SD)	30.7 (18.6)
% Censored for any breastfeeding ^b	673 (36.5)
Exclusive breastfeeding within 6 mo ^c	9.7 (9.3)
% Censored ^b for exclusive breastfeeding	125 (6.9)
Bedsharing	
Ever bedshared in first year	1248 (67.6)
Age at first bedsharing, mean (SD), wk ^d	8.3 (12.5)
Cumulative bedsharing score, mean (SD) ^e	2.3 (2.2)
Demographic covariates	
Maternal age, mean (SD), y	29.4 (5.3)
Maternal educational level	
High school or less	309 (16.7)
Some college	716 (38.8)
College graduate or more	821 (44.5)
Maternal race (white)	1577 (85.4)
Marital status (married)	1537 (83.3)
Income as percent of federal poverty level ^f	274.4 (195.3)
Mother returned to work in first year (yes)	1161 (62.9)
Breastfed other child or children (yes)	1240 (67.2)
Postnatal smoking (3 mo postpartum) (yes)	183 (9.9)
Prenatally planned to exclusively breastfeed (yes)	1387 (75.1)
Breastfeeding problem in first 2 wk (yes)	1625 (88.0)

- ^a Values are presented as number (percentage) unless otherwise indicated.
- ^b Censoring mechanisms for the 2 breastfeeding durations are explained in the Outcome Measures subsection of the Methods section.
- ^c Exclusive breastfeeding was recoded so that formula feeding in the hospital did not count to measure behavior that was under the mother's control.
- ^d Actual infant age at which bedsharing was first reported was calculated from a direct question (eg, bedsharing at infant age 2 weeks) or the questionnaire completion date (for questions that asked about bedsharing "now" or "in the past 4 weeks")
- ^e Cumulative bedsharing score was defined by counting the number of times the mother said she was bedsharing and ranged from 0 to 7.
- f The federal poverty threshold is set by the Census Bureau each year and depends on the number and ages of family members. The percent of poverty level is the family income divided by the threshold, which differs according to family size and ages. For example, 274% of the poverty level means that the family income is 2.74 times the threshold.

non-bedsharing groups, as shown by the Kaplan-Meier plots in the Figure. The effect was more pronounced for any breast-feeding. The times when only 50% of mothers were still breast-feeding in the moderate, rare, and non-bedsharing groups were 38.7, 34.4, and 30.1 weeks, respectively, while more than 50% of mothers were still breastfeeding in the often bedsharing group by the end of the study.

Table 2 shows the results from univariable Cox models, confirming that longer duration of bedsharing, indicated by a higher cumulative bedsharing score, was significantly associated with longer duration of any and exclusive breastfeeding, as shown by hazard ratios that are statistically significant and less than 1. The younger the infants were when bedsharing was initiated, the longer the duration of both categories of breast-

feeding. The other Kaplan-Meier plots (not shown due to space limitations) indicate that, on average, the duration of any breastfeeding was longer in mothers who had at least some college education and were of non-Hispanic white race, were married, did not return to work in the first year of infancy, breastfed another child, did not smoke postpartum, had prenatally planned to exclusively breastfeed, and had no neonatal breastfeeding problems. Results from the univariable Cox models (Table 2) confirm that all of these categorical covariates were significantly associated with duration of any and exclusive breastfeeding.

Results from time-dependent Cox regression models are summarized in **Table 3**, quantifying the effects of bedsharing behaviors on breastfeeding durations while controlling for covariates. Controlling for infant age at first bedsharing and other covariates, a higher cumulative bedsharing score was significantly associated with longer duration of any breastfeeding but not exclusive breastfeeding. Specifically, with a 1-level increase in the cumulative bedsharing score among mothers initiating bedsharing at the same infant age, the hazard of stopping any breastfeeding was reduced by 15.5% (the percent reduction is calculated by 1 minus the hazard ratio). Age of infant at first bedsharing was not related to either measure of breastfeeding duration in the multivariable analysis.

Six covariates were significantly associated with a greater hazard of shortening any and exclusive breastfeeding duration after controlling for bedsharing and other covariates. The 2 lower education categories, the nonwhite group, and mothers who returned to work within the first year of infant life, had not breastfed another child, smoked postnatally, and did not plan prenatally to breastfeed had greater hazards of shortening any and exclusive breastfeeding duration than their respective reference categories. Two covariates-maternal age and income-were significantly associated with the duration of any breastfeeding but not exclusive breastfeeding. Specifically, younger age and lower income were associated with shorter duration of any breastfeeding. Marital status and breastfeeding problems in the first 2 weeks showed a trend toward being associated with both measures of breastfeeding after controlling for covariates but did not reach statistical significance.

Discussion

Overall Findings

In this large longitudinal study, we found a positive association between bedsharing duration and breastfeeding duration. Mothers who bedshared often were much more likely to breastfeed longer compared with mothers who bedshared less frequently or not at all. This was more pronounced for any breastfeeding than for exclusive breastfeeding. In the univariable analysis, the durations of any and exclusive breastfeeding were greater among mothers who bedshared longer. These findings are consistent with other studies, both cross-sectional^{9,19} and longitudinal.^{7,20,21} We found also that infants who started bedsharing at a younger

Table 2. Associations Between Individual Covariates and Duration of Any and Exclusive Breastfeeding

	Duration				
	Any Breastfeeding Within the First Year (n = 1846)		Exclusive Breastfeeding Within the First 6 Months (n = 1800) ^a		
Variable	Hazard Ratio (95% CI) ^b	P Value	Hazard Ratio (95% CI) ^b	P Value	
Cumulative bedsharing score	0.88 (0.84-0.91)	<.001	0.94 (0.90-0.99)	.01	
Age at first bedsharing	1.01 (1.00-1.01)	<.001	1.00 (1.00-1.01)	.003	
Maternal age	0.97 (0.95-0.98)	<.001	0.99 (0.98-1.00)	.005	
Maternal educational level					
High school or less	1.93 (1.65-2.26)	<.001	1.69 (1.47-1.94)	<.001	
Some college	1.40 (1.23-1.59)	<.001	1.35 (1.22-1.50)	<.001	
College graduate or more	1 [Reference]		1 [Reference]		
Maternal race					
Nonwhite	1.42 (1.22-1.66)	<.001	1.58 (1.38-1.80)	<.001	
White	1 [Reference]		1 [Reference]		
Marital status					
Not married	1.84 (1.60-2.13)	<.001	1.67 (1.47-1.89)	<.001	
Married	1 [Reference]		1 [Reference]		
Income as percent of federal poverty level	1.00 (1.00-1.00)	.14	1.00 (1.00-1.00)	.95	
Mother returned to work in first year					
Yes	1.67 (1.48-1.90)	<.001	1.39 (1.26-1.54)	<.001	
No	1 [Reference]		1 [Reference]		
Breastfed other child or children					
No	1.57 (1.39-1.76)	<.001	1.39 (1.25-1.54)	<.001	
Yes	1 [Reference]		1 [Reference]		
Postnatal smoking					
Smoked	2.53 (2.14-3.00)	<.001	1.99 (1.70-2.33)	<.001	
Did not smoke	1 [Reference]		1 [Reference]		
Prenatally planned to exclusively breastfeed					
No	2.43 (2.15-2.76)	<.001	2.62 (2.34-2.93)	<.001	
Yes	1 [Reference]		1 [Reference]		
Breastfeeding problem in first 2 wk					
Yes	1.27 (1.05-1.53)	.01	1.22 (1.05-1.41)	.009	
No	1 [Reference]		1 [Reference]		

^a The sample size for the models of exclusive breastfeeding are slightly reduced compared with that for the models of any breastfeeding duration because some mothers did not answer the bedsharing questions until 6 months or after, which caused them to be missing on the bedsharing variables during the exclusive breastfeeding period considered for this study.

infant age had longer durations of breastfeeding in the univariable analysis. It has been suggested that socioeconomic background may be associated with mothers' decisions to bedshare at an earlier infant age. Blair and colleagues,7 who examined this in a longitudinal study of infants to 4 years of age, found that early bedsharing, defined as starting in the first year of infancy, was more common among mothers of higher socioeconomic status. Although our study included infants only up to 1 year, we conducted an analysis to compare the socioeconomic status of mothers who began bedsharing when their infants were 6 months or younger (early bedsharing) with those who bedshared when their infants were older than 6 months (later bedsharing). We found no differences in maternal education, marital status, and income between these 2 groups, and thus we are not able to explain timing of bedsharing based on these demographic features.

In the multivariable analysis, we found that bedsharing duration remained statistically significant for the duration of any breastfeeding but not for exclusive breastfeeding. Instead, we

found that a number of other factors predicted longer duration of breastfeeding, including older maternal age, higher education and other measures of socioeconomic status, not returning to work in the first year after birth, white race, and prior breastfeeding experience. These findings are similar to breastfeeding predictors reported in the literature. ^{19,22,23} They also indicate that bedsharing may be a less powerful predictor of breastfeeding duration, which instead is influenced by many other factors as described earlier.

Strengths and Limitations

This study has a number of strengths. The measures summarizing bedsharing behavior included the specific information that the mother slept while lying down with her infant. Bedsharing was also measured before breastfeeding cessation, so a directionality of the associations could be inferred. The statistical analysis accounted for the right-censoring characteristics of outcomes (for cases in which the time of breastfeeding cessation was not observed, such as those unavailable for follow-up within the study period, and when the mother con-

^b Univariable Cox regression models are used here. For categorical covariates, log-rank tests are also used to confirm the findings. Because we are modeling the hazards of breastfeeding cessation, hazard ratios less than 1 indicate a reduced risk of stopping breastfeeding for the category with higher values vs lower values in each variable (eg, cumulative bedsharing score and maternal age), whereas hazard ratios more than 1 indicate an increased risk of stopping breastfeeding for these higher values. For binary variables, hazard ratios more than 1 indicate an increased risk of stopping breastfeeding for the category listed compared with the reference category. We used the category with less risk of stopping as the reference category for each variable

Table 3. Associations Between Bedsharing Behaviors and Duration of Any and Exclusive Breastfeeding Controlling for Covariates^a

	Duration				
Variable	Any Breastfeeding Within the First Year (n = 1846)		Exclusive Breastfeeding Within the First 6 Months (n = 1800)		
	Hazard Ratio (95% CI) ^b	P Value	Hazard Ratio (95% CI) ^b	P Value	
Cumulative bedsharing score	0.85 (0.79-0.90)	<.001	0.96 (0.89-1.04)	.31	
Age at first bedsharing	1.00 (1.00-1.00)	.83	1.00 (1.00-1.01)	.16	
Maternal age	0.98 (0.97-1.00)	.01	1.01 (0.99-1.02)	.26	
Maternal educational level					
High school or less	1.7 (1.39-2.08)	<.001	1.67 (1.41-1.99)	<.001	
Some college	1.38 (1.19-1.61)	<.001	1.36 (1.20-1.55)	<.001	
College graduate or more	1 [Reference]		1 [Reference]		
Maternal race					
Nonwhite	1.22 (1.02-1.45)	.03	1.47 (1.25-1.72)	<.001	
White	1 [Reference]		1 [Reference]		
Marital status					
Not married	1.16 (0.96-1.39)	.12	1.16 (0.98-1.37)	.08	
Married	1 [Reference]		1 [Reference]		
Income as percent of federal poverty level ^c	1.00 (1.00-1.00)	<.001	1.00 (1.00-1.00)	.18	
Mother returned to work in first year					
Yes	1.53 (1.33-1.76)	<.001	1.36 (1.21-1.53)	<.001	
No	1 [Reference]		1 [Reference]		
Breastfed other child or children					
No	1.23 (1.06-1.43)	.007	1.24 (1.09-1.41)	.001	
Yes	1 [Reference]		1 [Reference]		
Postnatal smoking					
Smoked	1.99 (1.63-2.44)	<.001	1.65 (1.36-1.99)	<.001	
Did not smoke	1 [Reference]		1 [Reference]		
Prenatally planned to exclusively breastfeed					
No	2.25 (1.95-2.59)	<.001	2.32 (2.03-2.64)	<.001	
Yes	1 [Reference]		1 [Reference]		
Breastfeeding problem in first 2 wk					
Yes	1.22 (0.99-1.50)	.06	1.16 (0.98-1.37)	.09	
No	1 [Reference]		1 [Reference]		

^a Evaluated by time-dependent Cox regression models, controlling for other variables in the table.

tinued to breastfeed after the study period). Other study strengths include the national distribution of the sample, the high response rate for the postnatal period (66.7%), and a sample large enough that underrepresented demographic categories had enough subjects to be included in the analyses. The study limitations include that the sample overrepresented women who were white and had a higher socioeconomic status and was restricted to healthy, singleton infants, which may decrease the generalizability of the study's results to infants with low birth weight or health problems. Even though these concerns are common in this type of epidemiologic study, extra caution is needed nonetheless for the interpretation of results. Another limitation is that duration of bedsharing was based on the number of times each mother indicated she was bedsharing, reflecting how often the question was asked as part of the study (maximum, 7) rather than as a continuous time duration.

Conclusions

This study provides strong evidence that bedsharing promotes breastfeeding by increasing breastfeeding duration, with the greatest effect found among frequent bedsharers. However, these benefits must be tempered by the known safety risks associated with infant-parent bedsharing. Several studies have found bedsharing to pose an increased mortality risk to infants from SIDS, accidental suffocation and asphyxia, and "unknown cause."^{24,25} The American Academy of Pediatrics published updated safe sleep and SIDS risk reduction guidelines in 2011, which recommend against bedsharing based on the published literature. ^{12,26} Since room sharing without bedsharing reduces the risk of SIDS compared with infants sleeping in a crib in a room separate from the parents, ²⁷⁻³⁰ the American Academy of Pediatrics recommends that infants sleep in a crib

^b Because we are modeling the hazards of breastfeeding cessation, hazard ratios less than 1 indicate a reduced risk of stopping breastfeeding for the category with higher values vs lower values in each variable (eg, cumulative bedsharing score and maternal age). whereas hazard ratios more than 1 indicate an increased risk of stopping breastfeeding for these higher values. For binary variables, hazard ratios more than 1 indicate an increased risk of stopping breastfeeding for the category listed compared with the reference category. We used the category with less risk of stopping as the reference category for each

^c The CI of income (percent of federal poverty level) for any breastfeeding does not include 1 before rounding; the CI for exclusive breastfeeding includes 1 before rounding.

in the parents' room to prevent SIDS and other sleep-related infant deaths. 12

As representatives of the public health and policy community (National Institutes of Health, Food and Drug Administration, and the American Academy of Pediatrics Task Force on SIDS), we are supportive of the recommendations to place infants to sleep in a separate but proximate location rather than sleeping in the same bed. ¹² We are all also highly committed to breastfeeding. Parents need to know that bedsharing may make breastfeeding easier to maintain and therefore it is tempting for them to do it. On the other hand, they deserve to know

that it comes with a risk to their infant's safety. Health professionals need to address these 2 sides when educating parents, so that informed decisions can be made. Future guidelines on safe sleep for infants also should identify these associations as potential barriers to following the advice of public health policy and offer ways to overcome them. In addition, studies have not evaluated whether a separate but proximate sleeping arrangement promotes breastfeeding to the same extent as does bedsharing. Future research is needed to answer this question. Other strategies to promote breastfeeding should also be developed and tested.

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