

Abstract

Breastfeeding positively influences maternal and infant health. Considerable research with preterm infants is available, however, differences between preterm and term infants' breastfeeding duration and factors influencing cessation has not been fully evaluated. The purpose of this study was to compare factors affecting breastfeeding duration/cessation in preterm and term infants, including infant (latching, eating, food intolerance, weight gain), maternal (medications, weight loss concerns, stress/fatigue), and environmental (convenience, time, returning to work, family support) factors. A cross-sectional survey using SurveyMonkey was distributed through social media and online breastfeeding support groups that included mothers ≥ 18 years-old, with a child 12-24 months old, US born, who received breastmilk at any point during the first year of life. No significant difference was found for exclusive breastfeeding between preterm and term infants at any point, 0-5 months; however, a significant difference at 6 months was found. No differences in providing any breastmilk at any point were found. A significant difference in maternal medications and multiple births influencing cessation was found for both groups. Preterm infants more often participated in WIC; mothers receiving breastfeeding education prior to delivery, resulted in higher breastfeeding rates at 6 and 12 months.

Objective

To compare factors affecting breastfeeding duration/cessation in preterm and term infants, including infant (latching, eating, food intolerance, weight gain), maternal (medications, weight loss concerns, stress/fatigue), and environmental (convenience, time, returning to work, family support) factors.

Methods

A cross-sectional survey distributed through social media and online breastfeeding support groups included mothers ≥ 18 years-old, with a child 12-24 months old, US born, who received breastmilk at any time during the first year of life. The 50-question survey was administered for three weeks. It included maternal and child demographics, feeding methods, NICU stay, and reasons for discontinuation of human milk.

Results

Of the 687 responses to the survey, 531 responses were complete and used for analysis. The majority of respondents ($n=531$) were non-Hispanic white (78.7%), college-educated (61.6%), and from southern states (63.3%). Fifty mothers had a child born preterm, and 481 at term. Preterm infants were significantly more likely to be a male gender ($\chi^2 (1, N = 531) = 4.58, p = .037$) and a cesarean delivery ($\chi^2 (1, N = 531) = 9.45, p = .003$) than term infants.

Results

Mothers with GDM ($\chi^2 (1, N = 531) = 9.07, p = .008$), T1DM or T2DM ($\chi^2 (1, N = 531) = 8.23, p = .020$), GHTN or Preeclampsia ($\chi^2 (1, N = 531) = 7.79, p = .046$) were significantly more likely to have a preterm birth. Mothers of term infants were more likely to be free of medical conditions ($\chi^2 (1, N = 531) = 24.48, p = .000$). Mothers of preterm infants were more likely to have another medical condition not identified on the survey ($\chi^2 (1, N = 531) = 13.170, p = .006$).

Reason for Breastfeeding Cessation	Preterm (≤ 36 weeks) $n = 50$ (%)	Term (≥ 37 weeks) $n = 481$ (%)	Total $n = 531$ (%)
Infantile:			
Difficulty latching/sucking and/or had to use nipple shield	3 (6.0%)	38 (7.9%)	41 (7.7%)
Child biting	1 (2.0%)	17 (3.5%)	18 (3.4%)
Child not gaining weight	2 (4.0%)	19 (4.0%)	21 (4.0%)
Child sleepiness	0 (0.0%)	3 (0.6%)	3 (0.6%)
Multiple birth (twins, triplets, etc.)	2 (4.0%)*	1 (0.2%)*	3 (0.6%)
Child illness	0 (0.0%)	5 (1.0%)	5 (0.9%)
Child feeding intolerance	1 (2.0%)	12 (2.5%)	13 (2.4%)
Maternal:			
Breast engorged or overfull	0 (0.0%)	2 (0.4%)	2 (0.4%)
Leaking breasts	0 (0.0%)	3 (0.6%)	3 (0.6%)
Pain with breastfeeding (i.e. sore, cracked, bleeding nipples; infected/abscessed breasts)	0 (0.0%)	13 (2.7%)	13 (2.4%)
Previous breast surgery	0 (0.0%)	4 (0.8%)	4 (0.8%)
Not producing enough milk	5 (10.0%)	82 (17.0%)	87 (16.4%)
Maternal medication	3 (6.0%)*	6 (1.2%)*	9 (1.7%)
Maternal illness or depression	3 (6.0%)	12 (2.5%)	15 (2.8%)
Maternal stress, fear, or tension of breastfeeding	1 (2.0%)	8 (1.5%)	9 (1.7%)
Maternal fatigue/tiredness	2 (4.0%)	19 (4.0%)	21 (4.0%)
Wanted to lose weight	0 (0.0%)	2 (0.4%)	2 (0.4%)
Became pregnant	1 (2.0%)	19 (4.0%)	20 (3.8%)
Environmental:			
Inconvenience	0 (0.0%)	6 (1.2%)	6 (1.1%)
Not enough time	3 (6.0%)	14 (2.9%)	17 (3.2%)
Healthcare provider discouraged	1 (2.0%)	2 (0.4%)	3 (0.6%)
Returning to work/unable to express milk at work	2 (4.0%)	31 (6.4%)	33 (6.2%)
Did not want to breastfeed/pump in public	0 (0.0%)	5 (1.0%)	5 (0.9%)
Your partner did not support you to breastfeed	0 (0.0%)	5 (1.0%)	5 (0.9%)
The child's grandparents did not support you to breastfeed	1 (2.0%)	4 (0.8%)	5 (0.9%)
Other family members did not support you to breastfeed	1 (2.0%)	9 (1.9%)	10 (1.9%)
Baby preferred the bottle	36 (72.0%)	337 (70.1%)	373 (70.2%)
None, I provided breast milk the entire first year of life	5 (10.0%)	37 (7.7%)	42 (7.9%)
Other			

For preterm infants, the father ($\chi^2 (1, N = 531) = 15.95, p = .001$) and other family members ($\chi^2 (1, N = 531) = 8.23, p = .016$) were more likely to live partially in the household. No difference was found in exclusive breastfeeding rates between preterm and term infants at 0-3, 4, or 5 months. A significant difference was found at 6 months, with increased exclusive breastfeeding rates for preterm infants (80.0% vs 22.7%) ($\chi^2 (1, N = 531) = 7.4, p = .009$). There were no differences at any time mark for non-exclusive breastfeeding rates.

Chi-square Test for Breastfeeding Rates at Each Month During the First Year of Life

Month of Life	Preterm (≤ 36 weeks) $n = 50$ (%)	Term (≥ 37 weeks) $n = 481$ (%)	Total $n = 531$ (%)
0-3 Months	50 (100%)	481 (100%)	531 (100%)
4 Months	47 (94.0%)	447 (92.9%)	494 (93.0%)
5 Months	43 (86.0%)	434 (90.2%)	477 (89.8%)
6 Months	42 (84.0%)	424 (88.1%)	466 (87.8%)
7 Months	42 (84.0%)	410 (85.2%)	452 (85.1%)
8 Months	42 (84.0%)	400 (83.2%)	442 (83.2%)
9 Months	40 (80.0%)	393 (81.7%)	433 (81.5%)
10 Months	38 (76.0%)	382 (79.4%)	420 (79.1%)
11 Months	37 (74.0%)	375 (78.0%)	412 (77.6%)
12 Months	37 (74.0%)	365 (75.9%)	402 (75.7%)

Note. Includes nursing directly from breast, human milk via bottle, or human milk via feeding tube. No statistical significance found.

A significant difference was noted between preterm and term infants for multiparous births with preterm infants having earlier breastfeeding cessation ($\chi^2 (1, N = 531) = 11.5, p = .025$). No differences in providing any breastmilk at any point were found. A significant difference in maternal medications, $\chi^2 (1, n = 531) = 6.1, p = .04$ and multiple births, $\chi^2 (1, n = 531) = 11.5, p = .03$ influencing cessation was found for both groups. Preterm infants more often participated in WIC; mothers receiving breastfeeding education prior to birth resulted in higher breastfeeding rates at 6 and 12 months.

Conclusions

Differences exist in exclusive breastfeeding rates between preterm and term infants at six months. Maternal medications and multiple births may influence early breastfeeding cessation. Participation in WIC may positively influence breastfeeding duration. Additional research is needed to determine whether these breastfeeding rates and factors contributing to cessation differ using various methods for participant recruitment.

SNEB Nutrition Educator Competencies

MF2 Research evaluating the difference between preterm and term infants' breastfeeding duration and factors influencing cessation is limited but necessary for developing interventions that enhance prolonged breastfeeding. The purpose of this study was to compare factors affecting breastfeeding duration/cessation in preterm and term infants, including.....US born mothers who were > 18 years old, with a child 12-24 months old were eligible to participate in an on-line survey and were recruited using social media and online breastfeeding support groups. There were 531 respondents with the majority being non-Hispanic white (78.7%), college-educated (61.6%) and from southern states (63.3%); fifty had preterm (<37 weeks) and 481 had term (>37 weeks) infants. No significant difference was found for exclusive breastfeeding between preterm and term infants at point, 0-5 months. However, a significant difference at 6 months (40.0% vs. 22.7%..... was found. Maternal medications and multiple births were significant influencing cessation for both

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may positively influence
breastfeeding duration

Mary Fontenot, 5/31/2021