



Factors Influencing Formula Supplementation in Low-Income Mothers in the Well Baby Nursery

Name:

Ashley Landsman

Scholarly

Concentration:

Advocacy (StaT)

Poster available?

***No**

Presentation available?

***No**

**For more information, please email scholarlyconcentrations@stanford.edu*

AUTHORS: Ashley Landsman, MD, Norma Jimenez, Janine Bruce, DrPH, MPH , Lisa Chamberlain, MD, MPH

MENTOR(S): Janine Bruce

RESEARCH QUESTION: What factors influence low income mothers to use formula in the first days of life in the well baby nursery?

BACKGROUND AND RELEVANCE OF THE STUDY: Early introduction of formula has been associated with decreased rates of exclusive breastfeeding after hospital discharge. Breastfeeding rates are not equal across all mothers, with known disparities in rates of exclusive breastfeeding in low-income and minority mothers. Despite the many known benefits of breastfeeding, high rates of formula supplementation occur within the first few days of a baby's life within hospitals. The use of formula in a healthy, term newborn is often multifactorial, and these specific influences are not described.

DESIGN AND METHODS: We conducted semi-structured interviews to understand breastfeeding experiences with postpartum mothers who received formula supplementation during their postpartum hospital stay, despite their plan to exclusively breastfeed on admission. Our population included publicly insured mothers of term, (38-41 weeks) healthy newborns who were appropriate for gestational age and not infants of diabetic mothers. Once participants were identified, a brief screen of their electronic record was performed to ensure no other medical reasons for formula use was documented including hypoglycemia or separation from mother. Key topics discussed during interviews included: reasons for breastfeeding, breastfeeding support prior to, during and after hospitalization, reasons for formula use, as well as maternal perception of provider response to formula use. Interview transcripts were analyzed using team-based theme analysis with Dedoose software.

RESULTS: Sixteen interviews were conducted with mothers, including Hispanic and non-Hispanic, first time and experienced mothers, and mix of English (n=8) and Spanish (n=8) speakers. Mothers detailed the following primary reasons for formula use: 1) maternal anxiety about their infant's health and nutrition, 2) pain and frustration with the difficulties of breastfeeding, 3) need for sleep, and 4) lack of knowledge about normal newborn feeding behaviors. A few mothers described formula as a good "back-up plan" that relieved the stress of exclusive breastfeeding, allowed for sleep, or provided temporary pain relief. Mothers also reported feeling supported by staff and confident about their decision to supplement when they were given formula upon request. Mothers felt nursery staffs' provision of formula and continued to support breastfeeding efforts did not need to be mutually exclusive.

CONCLUSIONS: In our study, formula supplementation of healthy, term newborns occurred mainly due to need for continued maternal education around breastfeeding and normal newborn feeding behaviors. Mothers also believed the use of formula and breastmilk was beneficial and thought hospital staff could support both efforts simultaneously. Inconsistencies were found on inpatient resources for new mothers, highlighting areas for improvement. Future studies should target incorporating nursery staff input on formula supplementation practices, as well as piloting standardized breastfeeding support efforts to aim to improve maternal support and resources while hospitalized. The decision to supplement breastfeeding is a personal and often emotional decision, so staff should continue to strive to support mothers' decisions on feeding as well as continue to educate on breastfeeding efforts.

[Table of contents >](#)