

Increasing Breastfeeding in WIC Participants: Cost of Formula as a Motivator

Viviane M. Fornasaro-Donahue, MS, RD; Alison Tovar, PhD, MPH; Linda Sebelia, MS, RD; Geoffrey W. Greene, PhD, RD, MPH

ABSTRACT

Objective: To assess the cost of infant formula, explore mothers' perceptions of formula cost, and assess whether cost influences the decision to breastfeed.

Methods: A mixed-methodological descriptive study with survey (phase 1) and interviews (phase 2) was completed in Rhode Island Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) offices. Thirty non-breastfeeding mothers participated in phase 1 and 14 pregnant women participated in phase 2. Means and frequencies were calculated for phase 1. For phase 2, data were organized into matrices and thematic analysis identified key themes.

Results: Non-breastfeeding mothers were spending an extra \$46 a month on average in their child's fourth month on formula beyond the formula supplied by WIC. This was perceived as high, but formula cost did not influence their decision to breastfeed. For mothers intending to breastfeed, cost information was perceived as an additional motivation.

Conclusions and Implications: Information on supplemental formula cost could be provided as a motivator for women intending to breastfeed. Future research should investigate how cost information could be used to support breastfeeding initiation and duration among WIC mothers.

Key Words: breastfeeding, qualitative evaluation, infant formula, cost, motivation (*J Nutr Educ Behav.* 2014;46:560-569.)

Accepted March 14, 2014. Published online May 15, 2014.

INTRODUCTION

The benefits of breastfeeding for both children and mothers are well documented.¹ Although breastfeeding rates have increased since 1999, they continue to fall short of Healthy People 2020 objectives regarding duration and exclusivity.² Because a mother's intention to breastfeed and initiation of breastfeeding increases after prenatal education,^{3,4} it may be crucial to provide breastfeeding education and knowledge about infant feeding practices during this time. It is especially important to reach low-income mother-infant dyads because they are at higher risk for poor health and have lower breastfeeding rates.^{5,6} Women enrolled in the Special Supplemental Nutrition Program for

Women, Infants, and Children (WIC) are less likely to breastfeed compared with non-participants of the WIC program.⁷⁻¹⁰ Although the reasons for this are complex, it is possible that this could be related to offering free formula.¹¹ The amount of formula supplied by WIC is often insufficient to cover the infant's demands; thus, mothers need to purchase extra formula in addition to what is provided by the WIC program. However, before deciding to breastfeed or formula feed their infants, mothers may not recognize the financial burden of purchasing extra formula each month, because this information is not included in WIC educational materials.

Prior studies have described economic issues of infant feeding choices,¹²⁻¹⁴ what affects a mother's

decision to breastfeed,¹⁵⁻¹⁸ and how interventions influence WIC breastfeeding rates.^{8,9,19-21} To the current authors' knowledge, however, no previous study has explored the potential influence of formula cost on feeding choice for WIC mothers and explored the effects of this information on breastfeeding. Therefore, the goals of this study were to estimate formula feeding costs for non-breastfeeding WIC mothers in Rhode Island and to assess mothers' perception and influence of these costs on their decision to breastfeed. The hypothesis of this study was that the cost (both financial and non-financial) associated with formula feeding was high, and knowing this information would influence their decision to breastfeed.

METHODS

This mixed-methodological descriptive study collected both survey and qualitative in-depth interviews data from Rhode Island WIC participants. Phase 1 was designed to determine the amount spent monthly on the

Department of Nutrition and Food Sciences, University of Rhode Island, Kingston, RI
Address for correspondence: Alison Tovar, PhD, MPH, Department of Nutrition and Food Sciences, University of Rhode Island, 45 Upper College Rd, Kingston, RI 02881; Phone: (401) 874-9855; Fax: (401) 874-5974; E-mail: Alison_Tovar@mail.uri.edu
©2014 SOCIETY FOR NUTRITION EDUCATION AND BEHAVIOR
<http://dx.doi.org/10.1016/j.jneb.2014.03.003>

purchase of extra formula by non-breastfeeding mothers. Phase 2 was designed to identify and assess personal, familial reasons, motivators for intending or not intending to breastfeed, and to determine their perceptions of the cost of purchasing formula and the influences of these costs on their decision to breastfeed. The University of Rhode Island (URI) Institutional Review Board on the Protection of Human Subjects approved this project.

Phase 1: Participants and Data Collection

Phase 1 of this study was conducted at the Rhode Island WIC offices in 3 cities in Rhode Island, representing a diverse, underserved population. The researchers randomly selected a list of WIC offices ($n = 7$) from all the WIC offices in Rhode Island ($n = 27$). The selected WIC offices were contacted via phone to inform them about the possibility of participating in the study; a total of 3 offices agreed to participate. Participants were enrolled over a period of 5 months, from February, 2011 to July, 2011. While women were attending a routine appointment at the WIC offices, research staff asked whether they were interested in participating in a brief survey. Eligibility criteria included being a WIC recipient, being a non-breastfeeding biological mother of an infant from 1–4 months of age, and having the ability to understand and speak English, Spanish, or Portuguese. Participants verbally consented to participate and received a pedometer after completing the survey.

The brief self-administered survey was developed specifically for this study. Items were generated in collaboration with Supplemental Nutrition Assistance Program–Education (SNAP-Ed) staff and WIC directors. Before data collection, 3 cognitive interviews were conducted with WIC mothers. Mothers reported that questions were clear and no modifications were needed as a result. The survey assessed the following questions related to monthly infant formula purchases:

1. “Thinking about infant formula purchased for your baby, please indicate the number of cans pro-

vided by WIC, and separately the number of cans and size of can purchased by yourself (cash, SNAP/food stamps, etc) for your baby. If no cans were purchased, please mark zero. If you purchased ≥ 1 cans yourself (cash, SNAP/food stamps, etc), what form did you purchase?”

Answers from question 1 were used to calculate the average number of cans purchased per month and the average by category (powder, liquid concentrated, and ready to use).

2. “If you purchased ≥ 1 cans, how did you purchase them?”

Answers from question 2 were used to allocate the cost into 3 categories: (1) out of pocket, (2) SNAP money, and (3) other.

During this time, WIC provided small cans of powder formula that were equivalent to 12.7 oz of powder. Information on number of people in the household and family monthly's income was also assessed.

Infant Formula Price Search

A price search of liquid concentrate, small and large powder, and ready-to-feed infant formula was conducted by the first author (V.F.) in 3 groceries stores within 1 mile of the areas served by WIC clinics. The unit price for all forms of formula was recorded by location. The prices of all locations for each form of formula were summed and the average was calculated. The average value of the formula provided by WIC and the cost of additional formula purchased by mothers were calculated for the first 4 months based on the average cost per can of formula.

Three educational brochures containing this cost information were developed to help set up interviews to determine cost perceptions. Brochure A compared the amount spent per month by mothers for additional formula for breastfeeding mothers (\$0, months 1–4) with the amount for formula feeding mothers (\$7.50, month 1 to \$50.00, month 4). Brochure B was similar to A but did not list the amount in dollars. Brochure C compared the cans of formula supplied by WIC with the cans bought by mothers at month 4. The

SNAP-Ed staff provided feedback during the process of developing the brochures. Three cognitive interviews were conducted with WIC participants before the initiation of phase 2.

Phase 2: Recruitment and Participants of In-Depth Interviews

Phase 2 of the study used in-depth interviews conducted in 2 of the previously mentioned WIC offices. WIC participants, recruited by WIC staff, were asked about their intention to formula or breastfeed and their opinion on the brochures describing formula cost. Interviews were completed over a 5-week period (April to May, 2012). Eligibility criteria included pregnant women with their first child, who were enrolled in WIC, were at least 18 years of age, and had the ability to speak and understand English, Spanish, or Portuguese. Seventeen mothers were approached; of those, 14 were eligible and completed the interview. Participants received a \$20 gift card to a local supermarket upon completion of the interview.

Before the semi-structured interview, mothers read and signed a consent form. All interviews were conducted in a semi-private room by a single trained interviewer and were audio-recorded. The interview guide was developed by the first author in collaboration with URI faculty and was based on a literature review. The interview included an icebreaker question, which was used to help develop rapport, and 9 additional questions, designed to evaluate breastfeeding intentions and educational materials (Table 1). After the interview, participants reported their height, prepregnancy weight, age, ethnicity, and gestational age. All interviews lasted between 15 and 20 minutes.

Interviews were transcribed by a researcher from URI; another researcher from URI verified the accuracy of the transcripts. Inconsistencies were reviewed until both researchers agreed on the content. The first author edited each transcript to preserve confidentiality by deleting any identifiers before data analysis.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات