



## Understanding the Apparel Use, Needs, and Preferences of Breastfeeding Mothers

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Keywords: Design requirements, breastfeeding apparel, user needs, design development

With the support of the US government and the Surgeon General, the percentage of mothers who choose to breastfeed is on the rise (CDC, 2012). An increase in breastfeeding mothers will result in increased use of breastfeeding products and apparel. In align with the goals of the Center for Disease Control (CDC), products and apparel should be developed with the needs of the breastfeeding mother in mind. The purpose of this qualitative study was to determine the apparel use, needs, and preferences of breastfeeding mothers.

The typical nursing apparel user may encounter many problems while breastfeeding. A review of common problems associated with breastfeeding, as well as a detailed task analysis of breastfeeding was performed.

The mammary gland, or breast, is complex and the problems associated with the gland throughout breastfeeding are multifaceted. Medical issues associated with breastfeeding affect nursing apparel design and use. For instance, contributing factors of an obstructed milk duct include constrictive clothing, as well as fatigue, stress, and inadequate drainage owing to a change in feeding frequency or duration (Prachniak, 2002). Two other medical problems affecting the breast of lactating mothers that apparel affect are breast engorgement and breast mastitis (Prachniak, 2002). Because breast soreness and sensitive skin are symptoms of these two problems, nursing apparel should embody aspects of material comfort and should not be constrictive.

This study took a qualitative approach to research by collecting data through individual interviews, observation of the interview setting, analysis of the participants' wearable products and field notes. An interpretive lens and grounded theory methodology guided the data collection, as well as a rigorous analysis of data.

Eight participants were interviewed for this study. The criteria for participant selection was that they had given birth to a child within one year, were currently feeding their child breast milk (either through nursing or pumping) and were working mothers. The reason for interviewing currently nursing mothers was to ensure that the process of breastfeeding and interaction with breastfeeding products was an integral part of their everyday lives and that they were answering the questions based on current experience. The perspective of working mothers was sought because they face unique, everyday challenges that can provide additional insight into their needs for breastfeeding wearable products. A criterion sampling strategy was utilized to recruit the participants and participants were found based on word-of-mouth.

The data for analysis was a combination of the participants' own words, pictures and written description of products that the participants' brought in to the interview, and field notes taken by the interviewer. Interviews were recorded and transcribed verbatim. The participants were asked to bring in wearable products and apparel that they used while breastfeeding. Detailed pictures of the products were taken, and a description of their physical properties was

written and included in the field notes. In this study, triangulation was found through the use of comparing the words of the participants in conjunction with the pictures of the participants' apparel products and in-depth field notes describing the products, the interviews and the environment in which the interview is conducted. Through the analysis and comparison of these three elements, rigor, validity and reliability were established within this research.

The participants spoke at length about their current breastfeeding habits and wearable product needs. The emerging themes from this study show that there is a great need for improved breastfeeding apparel and wearable products that are accessible and addresses the important needs of ease-of-use, fit, breast and body size change, sensitive breasts, and comfort.

In specifically describing design features, the theme of fit and comfort was dominant throughout the interviews. Many of the interviewees had very sensitive breasts when they first began nursing and found that their bras irritated their breasts and did not provide comfort. In discussing the mother's bra wearing habits, the mothers described having difficulties in finding bras that fit all their needs. Common problems that were encountered with bras while nursing and pumping included finding the correct size, support, design, flexibility, and versatility.

The mothers interviewed discussed the importance of their apparel being easy to use and functional. Because of the time commitment involved in breastfeeding, the mothers emphasized how important it was that their apparel was easy to use, only required the use of one hand, was modest and functioned properly. The mothers have all developed daily routines that work for them and indicated that apparel was a critical element in breastfeeding successfully.

Price and accessibility were very important to the interviewees. Because the mothers are not likely to use breastfeeding products for more than one year, the value of a product influences both their decision to purchase and their ultimate satisfaction.

Design requirements for nursing apparel and wearable products were developed based on the data collected within this study. Designers can use this information as a starting point when developing new products for breastfeeding women. The data indicates that there is a real market for breastfeeding apparel and mothers are in need of better products.

Further research is necessary to develop and expand on the themes found within. Future research with a larger sample would add more depth to the exploration of the topic. Collecting anthropometric data of nursing mothers can help improve the size and fit of nursing apparel and wearable products.

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