Introduction

For optimal infant health, the American Pediatric Association and the World Health Organization recommend exclusive breastfeeding until 6 months of age with continued breastfeeding at least until the end of the first year of life and introduction of solid-nutrition milk foods between 4 to 6 months of age.1

Despite these recommendations, the duration of breastfeeding and age of solid food introduction schedule have varied tremendously among different societies across the world since ancient times.1 Compared to other primates, humans’ infant feeding decisions are flexible and humans cease breastfeeding much earlier.1

Because human weaning is flexible, modern mothers must make decisions about infant feeding depending on influences of time, resources (both supportive and material), and cultural beliefs.2

Study Aim

Studies show that mothers who are working, younger, obese and less educated tend to breastfeed for shorter durations and introduce solid foods at an earlier age.2 Married mothers tend to breastfeed for either a very long or a very short amount of time depending on the husband’s preferences.2 Cultural beliefs about breastfeeding and solid introduction also influence infant feeding behaviors.2

Using a biocultural framework, we explore factors that influence infant feeding in a sample of low income first time African American mothers from central North Carolina.

Methods

We used data from the Infant Care, Feeding, and Risk of Obesity Study, a longitudinal study of 217 mother-infant pairs recruited from WIC clinics and followed at 3, 6, 9, 12, and 18-month post-partum. Each visit, mothers were asked about their feeding practices, sociodemographic characteristics and beliefs about infant feeding.

Results

Bivariate Results: Figures 3 and 4 show result of t-test analyses, comparing mean breastfeeding duration and age of solid introduction among various sociodemographic and belief characteristics. Duration of breastfeeding was more strongly influenced by maternal characteristics than was the age of solid introduction.

Multivariate results: Figures 5 and 6 show the association between sociodemographic and beliefs and their effects on breastfeeding duration and age of solid introduction. The graphs show the resulting increase of breastfeeding duration/age of solid introduction when the above factors are true for the mother.

Discussion

The majority of mothers in the sample did not breastfeed their infants for the recommended amount of time and introduced solids at an earlier age than recommended.

The mean duration of breastfeeding was 1.57 months with a standard deviation of 2.99 months. Only 7% of the mothers breastfed their infants for six or more months. 21.2% of the mothers introduced solid foods to their infants during the recommended 4.6 month time range while 78.3% of mothers introduced solids earlier than recommended.

Multivariate analyses show that mothers who had more than a high school education, were over 22, married and believed that breastfeeding would make their babies healthier and smarter breastfed for a longer period of time. Mothers who had more than a high school education and believed that breastfeeding would make their infants smarter introduced solids at a later age.

Multivariate analyses show that marital status, age and belief in the benefits of breastfeeding have a positive effect on duration breastfeeding. The positive effect of marital status is attenuated when education is included in the model, suggesting that breastfeeding duration may be under the influence of cultural beliefs. Multivariate analyses show that breastfeeding duration for married women. The results also confirmed that mothers who were educated/beyond high school and believed that breastfeeding would make their babies smarter introduced solids at a later age.

Conclusion

These findings show that maternal beliefs and education have a strong positive effect on increased breast-feeding duration and later age of solid introduction. Placing these findings in an ecological framework of trade-offs between maternal needs and infant needs, low income African American mothers are more likely to make trade-offs in favor of infant nutrition when they believe in the benefits of breastfeeding and later solid introduction. Education can provide mothers with both the knowledge and increased resources for optimal breastfeeding. Supportive resources such as a husband also play a smaller role in improving infant feeding.

Works Cited


Acknowledgements

We would like to thank the Infant Care Team. This research was supported by NIH/NICHD Grant No: 0R01 HD022192-02 (PI: Bentley) and the Carolina Population Center.