



Oral Health Literacy, Health Literacy & Breastfeeding Practices

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ABSTRACT

Purpose: The purpose of this research is to assess the significance of oral health literacy and health literacy independently on breast-feeding decision, patterns, and duration in an urban population.

Method: This study was conducted as a cross sectional investigation at the Howard University Hospital Department of Pediatrics. Mothers who presented to Howard University Department of Pediatrics that satisfied the eligibility criteria were presented with a questionnaire aimed at assessing health literacy, oral health literacy, and breastfeeding patterns.

Results: The interim sample (n=6) of mothers was predominantly Non-Hispanic Black, who comprised 83.33% of sample, and 16.77% who identified as multiracial. Education level of the sample was equally split with half falling at or below a high school education and the other half having some college education. The entire sample chose to breastfeed with 50% exclusively breastfeeding for less than six months. While ‘marginal’ health literacy was found in 66.67% of the mothers, 33.37% presented with adequate health literacy. Measure of Oral Health Literacy Knowledge revealed that 66.67% of mothers had fair knowledge and 33.37% had a good level. Measure of Oral Health Literacy Patterns showed 83.33% of the sample exhibited poor patterns.

Conclusion: Health Literacy and oral health literacy among mothers who decided to breastfeed was sub-adequate. Overall, among mothers who choose to breastfeed, the results suggest that there is room for improvement to oral health literacy and health literacy and that strengthening practices to align with knowledge may be warranted.

INTRODUCTION

- Dental caries is a multifactorial disease with various pathways leading to its development. Dental caries is the most common chronic disease in children: Untreated dental caries has numerous negative effects on quality of life including difficulty sleeping, difficulty eating, pain, and infection.
- A potential contributor in caries risk is breastfeeding. Factors including ad libitum breastfeeding and or prolonged breastfeeding may influence the development of dental caries. Research shows that continued breastfeeding beyond 12 months is a contributing factor for increased risk for dental caries.
- Studies have shown that health literacy impacts breastfeeding. An aspect not often discussed in conjunction with breastfeeding is oral health literacy. Compromised breastfeeding patterns may be a result of decreased oral health literacy, a decreased health literacy, or a combination of both.
- The purpose of this research is to assess the influence of oral health literacy and health literacy independently on breast-feeding decision, patterns, and duration in an urban population. The goal is to potentially influence the development of strategies to aid future and current mothers in reducing infant caries.

RESULTS

The interim sample (n=6) included mothers of infants between six months of age and less than one year. The mean age of the mothers was 31.3 years with a standard deviation of 8.4. The demographics table of the interim sample is included below.

Age	N (%)
17-29	1 (16.67)
30-42	5 (83.33)

Income	
\$20,000-\$25,000	3 (50.00)
\$25,000-\$35,000	1 (16.67)
\$35000-\$45,000	2 (33.33)

Education	
9-11 th grade	2 (33.33)
High/school or GED	1 (16.67)
Some college	3 (50.00)

Race	
Non-Hispanic black	5 (83.33)
Other race (multiracial)	1 (16.67)

Health literacy and oral health literacy were measured with the following rankings according to the Brief Health Literacy Screening Questionnaire and the Knowledge about Infant Oral Care Questions. Knowledge about Infant Oral Care Questionnaire was used to gauge oral health literacy of mothers with infants and young toddlers. The questionnaire consists of 25 items. This variable was measured categorically. To assess the responses for the questionnaire, a scoring system was developed; scores were based on the number of correct/favorable answers given by mothers. The components in this questionnaire are scored as good, fair, and poor.

The Brief Health Literacy Questionnaire gauges health literacy and consists of three items with a categorical response of this questionnaire consists of three items. The response for each item was categorical, yes (1) or no (0). The total number of points was tabulated. The sum score 0-5 was categorized as inadequate, marginal, or adequate health literacy. A score of zero for health literacy indicates inadequate, a score of one equals marginal, and a score of two equals adequate. The levels of health literacy on the decision to breastfeed and exclusive breastfeeding for over six months are depicted below. Exclusive breastfeeding less than six months is depicted with a value of zero. Exclusive breastfeeding of six months and beyond is depicted with a value of one.

Figure 1: Level of Health Literacy in mothers who breastfed

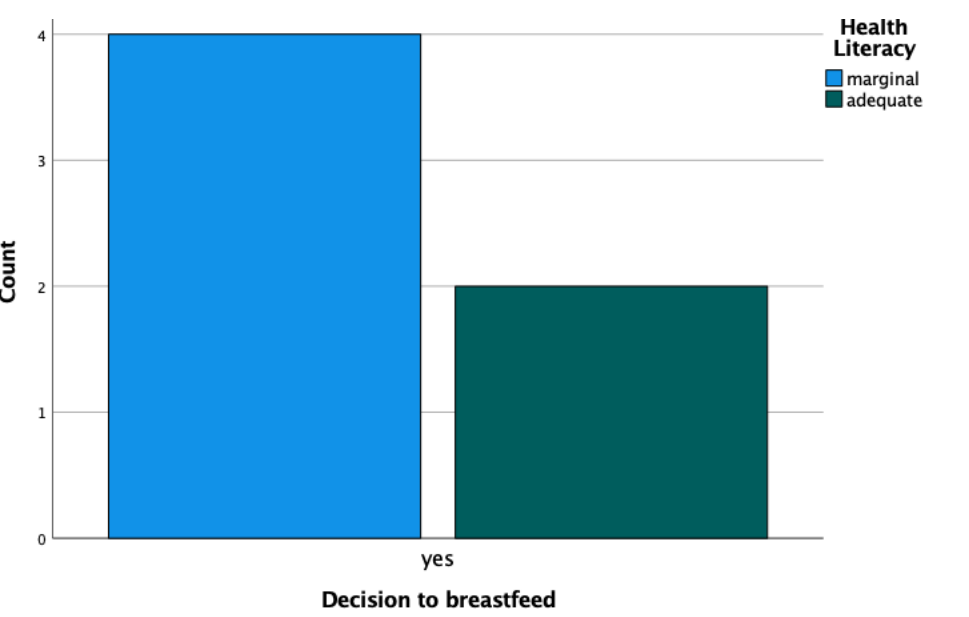


Figure 2: Level of Health Literacy in mothers who exclusively breastfed for six months or longer

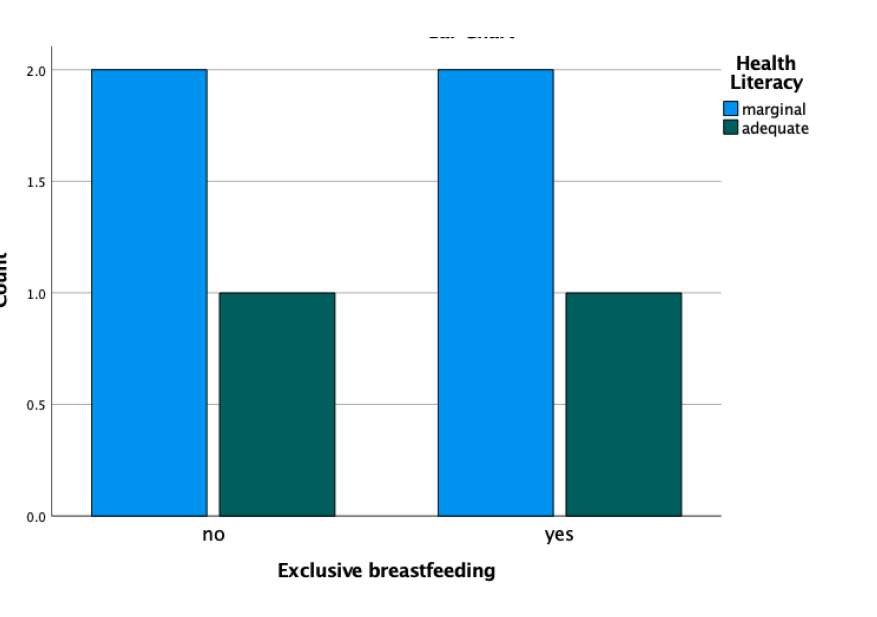


Figure 3: Oral health literacy knowledge in mothers who breastfed

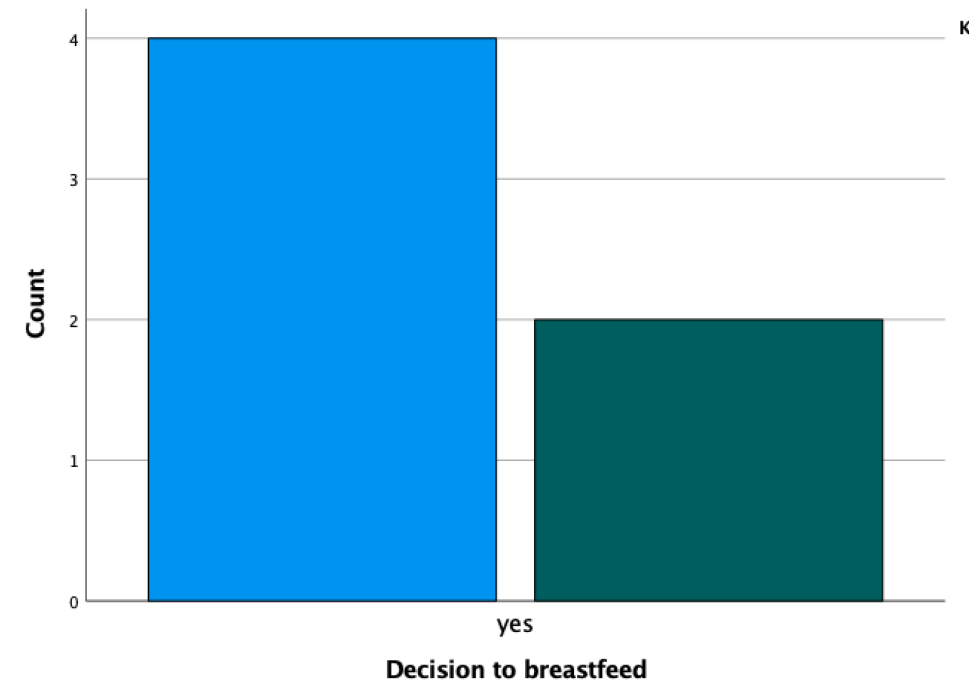


Figure 4: Oral health literacy attitudes in mothers who breastfed

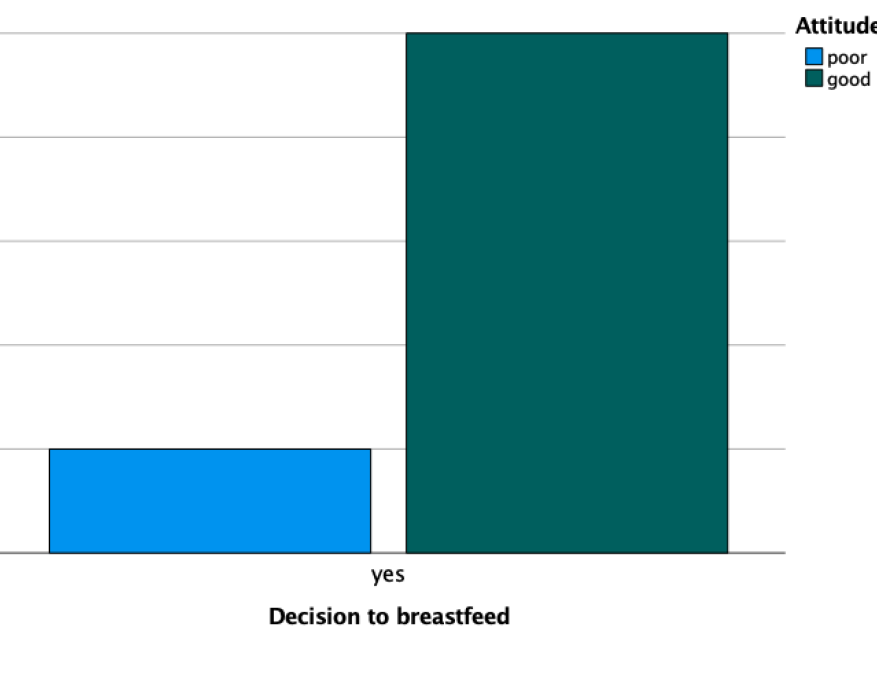


Figure 5: Oral health practices in mothers who breastfed

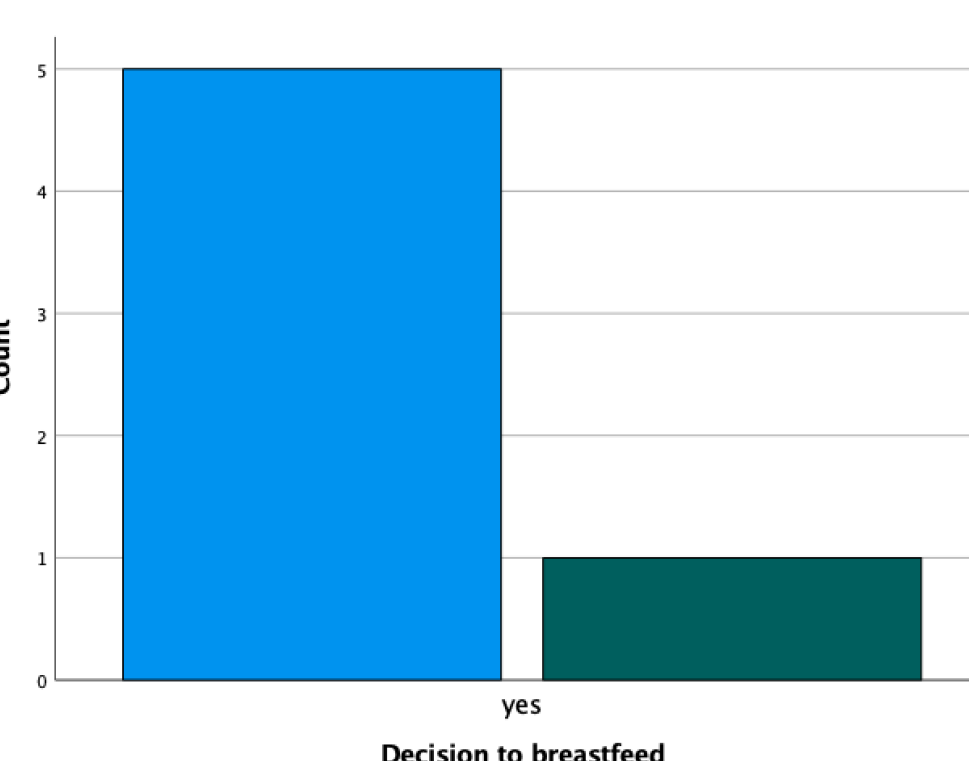


Figure 6: Duration of breastfeeding (months) by oral health literacy and health literacy

Health literacy	n	Mean	
		Standard deviation	
Marginal	4	5.00	5.416
Adequate	2	3.00	1.414
Total Oral Health Literacy	6	4.33	4.367
Knowledge	4	2.75	1.258
	2	7.50	7.778
	6	4.33	4.367
Attitude	1	13.00	0.00
	5	2.60	1.140
	6	4.33	4.367
Practice	5	4.60	4.827
	1	3.00	0.00
	6	4.33	4.367

METHODS

Study Design

This study was a cross sectional investigation conducted at the Howard University Hospital Department of Pediatrics. Mothers who presented to Howard University Department of Pediatrics with their child for a child wellness check appointment and satisfied the following eligibility criteria were presented with a questionnaire aimed at assessing health literacy, oral health literacy, and breastfeeding patterns.

Eligibility Criteria

Inclusion criteria:

- mothers of childbearing age
- mothers with a child at least six months and no greater than one year of age

Exclusion criteria include:

- mothers of children that have ankyloglossia and/or special health care needs
- mothers who experienced complications during childbirth that required extended stay in the hospital, did not birth the child, did not have a singleton birth, gave birth prior to 36 weeks, or had a medical condition or medication use that prevented them from breastfeeding

Variables

Exposure: Health literacy and oral health literacy

Outcome: Breastfeeding patterns measured in three ways: (1) decision to breastfeed – Y/N, (2) anticipated length of breastfeeding – in months, and (3) exclusively breastfeeding for six months or more – Y/N.

Statistical Analysis

- Interim results were generated using descriptive statistics in IBM SPSS statistical software version 28.

CONCLUSION

Health Literacy and oral health literacy among mothers who decided to breastfeed was sub-adequate. Mothers who breastfed had marginal health literacy. Additionally, while oral health literacy knowledge was fair, practices were poor, which may be an indicator that practice does not follow knowledge. Further, the results also depict that the level of health literacy did not differentiate mothers who choose to exclusively breastfeed for less than six months compared to those who exclusively breastfed for six months or longer. Overall, among mothers who choose to breastfeed, the results suggest that there is room for improvement of oral health literacy and health literacy and that strengthening practices to align with knowledge may be warranted.

REFERENCES

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