Breastfeeding is a significant health promotion activity for infants and mothers. The National Health and Nutrition Examination Survey 2009-2010 was utilized to examine breastfeeding length differences by race/ethnicity, family poverty rates, and maternal age. Older women (>35) (M=184.85, SD=10.63) and high income women (>200% of poverty rate) (M=155.76, SD=9.01) breastfed for the longest period. Significant interaction effects between race, poverty rate, and age exist.

Research Question:
What is the interaction relationship between maternal ethnicity, maternal age at delivery, and family income to poverty ratio on length of breastfeeding?

Study Sample:
Secondary analysis of the National Health And Nutrition Examination Survey 2009-2010 data, a national representative sample of adults and children throughout the United States (N=10,537). Data were analyzed from the mother or caregiver about a child participant regarding breastfeeding (N=1754).

Methods:
Breastfeeding: number of days (continuous)
Race/ethnicity: Mexican-American, Hispanic non-Mexican-American Non-Hispanic Black, Non-Hispanic White, Non-Hispanic Other
Maternal Age at Delivery: <18, 18-35, >35
Family Income by family size: <100% of poverty rate, 100-200% of poverty rate, >200% of poverty rate

Statistical Analysis:
Multivariable linear regression was conducted using SPSS v. 20.
Covariates of interest were added to the initial crude model, with those at the <.05 significance level remaining in the final model.
Potential interacting variables of ethnicity, maternal age, and family income to poverty ratio were examined to determine their effect individually and in combination with the outcome variable of interest, breastfeeding.

Results

Table 1 – Sample Demographic, Socioeconomic, and Maternal Pregnancy and Breastfeeding Characteristics Among US Population up to 16 years, by study: NHANES 2009-2010 (n=10537)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>% (No.)</th>
<th>Range</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican-American</td>
<td>10537</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Hispanic</td>
<td>22.6% (2384)</td>
<td>0.00-5.00</td>
<td>1.93 (1.55)</td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>18.8% (1131)</td>
<td>0.00-365</td>
<td>27.74 (6.10)</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>18.6% (1957)</td>
<td>0.00-365</td>
<td>154.04 (170.23)</td>
</tr>
<tr>
<td>Non-Hispanic Other</td>
<td>6.1% (643)</td>
<td>0.00-365</td>
<td>36.6% (838)</td>
</tr>
</tbody>
</table>

Family Poverty to Income Ratio:
- Maternal Age at Birth (Years):
  - <18: 14-45
  - 18-35: 27.74 (6.10)
  - >35: 154.04 (170.23)

Age stopped Breastfeeding (days):
- None or Less than 180 days: 63.4% (838)
- 180 days or longer: 36.6% (843)

Overall 36.6% of women breastfed for at least 6 months.
Mexican-American women breastfed less as they aged, which contrasted to other racial/ethnic groups.
Women in the highest income category had the greatest increase in breastfeeding by age, while women at middle income had no significant increase in breastfeeding by age.
Women over 18, family income remained significantly associated with a longer period of breastfeeding.
For the youngest women (<18), family income did not predict a longer period of breastfeeding.

Discussion
Study limitations include use of a secondary data set, therefore, data points that specifically addressed confounders of interest were not always available.
Further study will include culturally competent interventions for women under 18, women with lower SES, and older Mexican-American women.

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