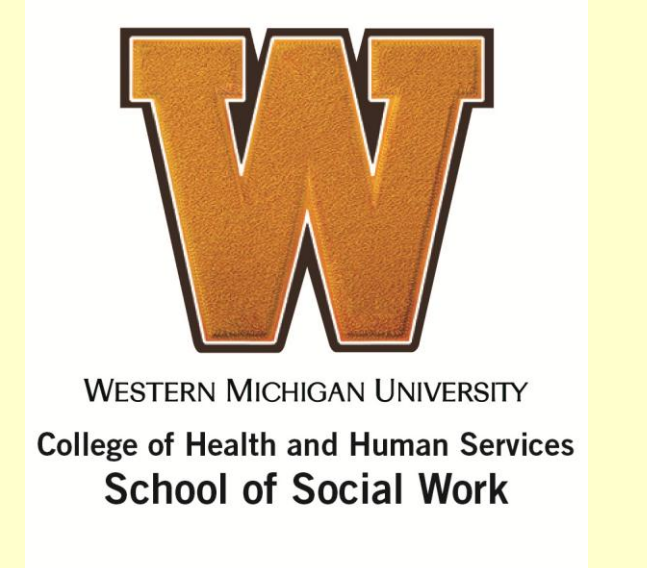


Maternal Ethnicity, Age, and Income Characteristics Associated with Breastfeeding

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Abstract

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=10.65) 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.

Introduction

- Breastfeeding is a significant health promotion activity associated with improvements in maternal infant bonding, physical and mental health development, and academic success of the child (Institute of Medicine, 1991)
- Lower breastfeeding rates have been found among individual variables: younger women, women living in poverty, and black women.
- Determining how these factors confound or interact with each other is crucial to target interventions to the most high risk groups (Chung, Ramin, Trikalinos, Lau, & Ip, 2008; Conde-Agulelo, Belizan, and Diaz-Rossello, 2011).

Research Question:

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

Methods

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)

Measures:

- 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)

	% (No.)	Range	Mean (SD)
Ethnicity	10537		
Mexican-American	22.6%(2384)		
Other Hispanic	10.8%(1133)		
Non-Hispanic White	41.9%(4420)		
Non-Hispanic Black	18.6%(1957)		
Non-Hispanic Other	6.1% (643)		
Family Poverty to Income Ratio		0.00-5.00	1.93 (1.55)
Maternal Age at Birth (Years)**		14-45	27.74 (6.10)
Age stopped Breastfeeding (days)***		0-999	154.04 (170.23)
None or Less than 180 days	63.4%(838)		
180 days or longer	36.6%(484)		

*Poverty to Income is the ratio of the midpoint of the family income category to the annual poverty rate for the FY 2009-10 by family size. A ratio below 1.0 indicates a family is below the poverty level. Ratios above 5.00 are reported at 5.00. ** Maternal age at birth was reported as 45 if 45 or older due to small number in that age group. ***Participants who never breastfed coded as 0. Participants could answer in days(1), weeks (7), months (30.4), or years (365) which was converted to days by surveyors

Figure 1: Length of Breastfeeding by Maternal Age and Ethnicity (NHANES 2009-10) N=1626

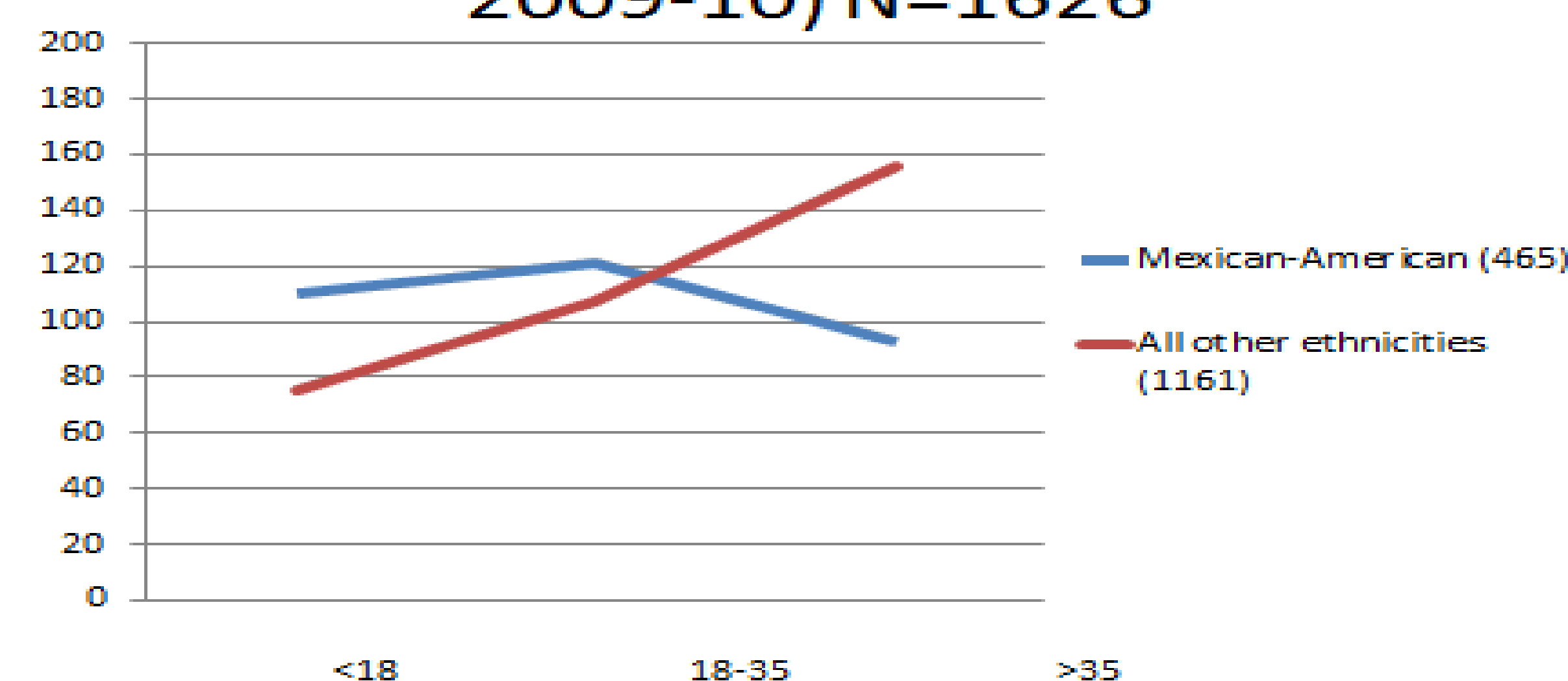
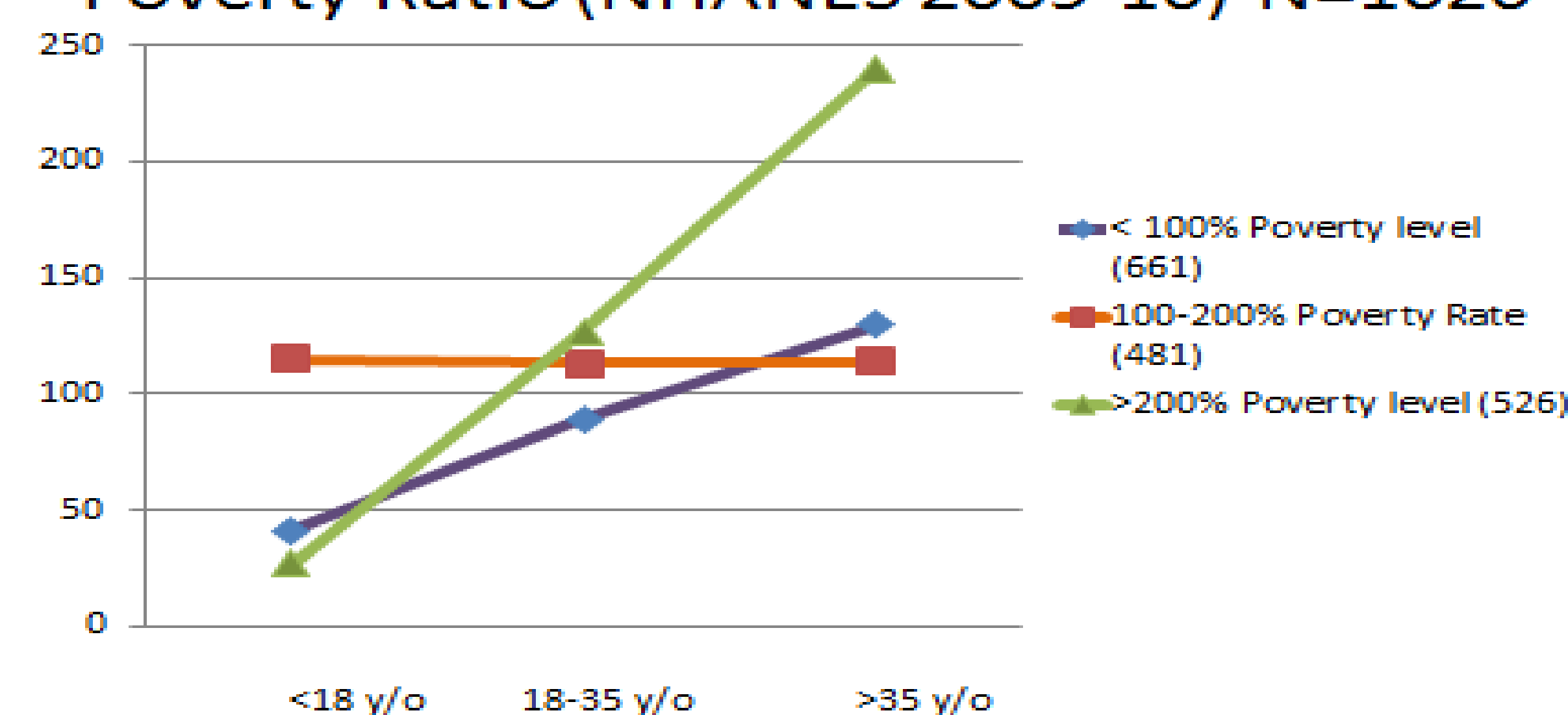


Figure 2: Length of Breastfeeding by Maternal Age at Delivery and Income to Poverty Ratio (NHANES 2009-10) N=1626



Summary

- 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 breast-feeding by age, while women at middle income had no significant increase in breastfeeding by age.
- For 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.

References

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