Predictors of Infant Feeding Practices among Mothers residing in a US/Mexico border town

Juan Lira, BSN RN & Victor M. Ramos, BSN RN

Texas A&M International University

Abstract

Purpose: To determine the correlates of maternal infant feeding practices among Mexican-American mothers residing in the US/Mexico border.

Methods: A secondary data analysis of an original cross sectional study conducted in two study locations near the US-Mexico border. A total of sixteen mothers participated in the study. Multiple linear regression was used to analyze the data.

Findings: Maternal participation in WIC had a significant positive relationship with maternal infant feeding practices. Mothers who participated in the WIC program were more likely to demonstrate infant feeding practices that would lead to increased risk of childhood obesity.

Conclusion: Findings of this study will have implications towards early education of WIC participants on infant nutrition and feeding.

Background

- The onset of overweight and obesity starts at a very young age.
- This is a health concern for general population as obesity is highly associated with hypertension, insulin resistance, and cardiovascular diseases.
- Weight distributions during infancy and early childhood are dependent on the feeding practices set by the parental figures.
- Evidence shows that early parental feeding practices shape the eating habits of children and determine their weight gain trajectory.

Aim:

To examine the correlates of maternal infant feeding practices for children ages 1 through 4 years of age.

Model:

- Acculturation
- Income
- WIC Participation
- Maternal Feeding Practices

Results

Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIC participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Born in Mexico</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Maternal feeding practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pearson correlation results

<table>
<thead>
<tr>
<th></th>
<th>Born in Mexico</th>
<th>Income</th>
<th>WIC participation</th>
<th>Sum of Maternal feeding practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Born in Mexico (1 = yes; 0 = no)</td>
<td>1</td>
<td>0.094</td>
<td>0.18</td>
<td>0.283***</td>
</tr>
<tr>
<td>Income (1 = &gt; $41,000; 0 = $41,000)</td>
<td>0.096</td>
<td>-0.420</td>
<td>0.016</td>
<td></td>
</tr>
<tr>
<td>WIC participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Maternal feeding practices</td>
<td>0.052</td>
<td>0.036</td>
<td>-0.283</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.10 level (2-tailed).
*p < .05
**p < .01

Multiple linear regression results

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>Sig.</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>12.31</td>
<td>1.23</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Income (1 = &gt; $41,000; 0 = $41,000)</td>
<td>1.95</td>
<td>1.24</td>
<td>0.18</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>WIC participation</td>
<td>3.51</td>
<td>1.26</td>
<td>0.36</td>
<td>0.003</td>
<td>**</td>
</tr>
<tr>
<td>Were you born in Mexico? (1 = yes; 0 = No)</td>
<td>-0.32</td>
<td>1.24</td>
<td>-0.03</td>
<td>0.797</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01
# p < .11

Methods

- Secondary data analysis from an original cross sectional study.
- N = 116 subjects participated from two study locations in south Texas.
- Eighty-eight mothers answered the MFP 1-4 years old questionnaire.

Findings

Mother’s participation in the WIC program had a significant association with maternal infant feeding practices at p < .01. Maternal income and acculturation measured in terms of place of birth were not associated with maternal infant feeding practices. Our model only predicted 11% of the variance of maternal infant feeding practices for children ages 1 through 4.

Conclusion

Our findings support previous studies regarding the association between WIC participation and maternal feeding practices. Recommendations for culturally sensitive education about feeding and nutrition are recommended for mothers who are participating in the WIC program.

Clinical Relevance

Despite the goal of the WIC program which is to promote nutritional support and breastfeeding, it has been identified that enrollment in this program could potentially contribute to risks of childhood overweight and obesity. We recommend education on nutrition should be emphasized and be made compulsory to program participants in order to drive the real purpose of the program. Also mandatory education could prevent confusion by the seemingly conflicting incentives afforded by WIC to program participants. Importance about the manner of feeding, the type of food, and the amount of food appropriate for children’s age should be given emphasis. We recommend further studies on this topic in border towns and underserved communities.

Acknowledgments

We thank Dr. Marivic Torregosa for her expert advise, guidance and motivation throughout this project.

A special thanks to Mayela Nino BSN RN for sharing her dataset with us.

Texas A&M International University Office of Graduate Studies and the Dr. F. M. Canseco School of Nursing for providing some funds for our travel.