The influence of acculturation, marianismo beliefs and body weight/BMI on participation in physical activity among immigrant Latinas was addressed in this study. Using data from the Physical Activity Intervention for Latinas (PAIL) study, we correlated acculturation, marianismo beliefs and body weight with physical activity. Results of the correlation analysis showed that immigrant Latinas with low acculturation may be more likely to engage in physical activity and those with moderate to high marianismo beliefs may be less likely to do so. In addition there was a positive significant correlation between acculturation and BMI and a marginally inverse relationship between acculturation and marianismo beliefs.

**DATA AND METHODS**

**PAIL Study: Physical Activity Intervention for Latinas study**

Prospective, 12 week funded promotore-mediated physical activity/exercise intervention from 2008 - 2009. Low income Hispanic women or Latinas between the ages of 18-55, from the New Brunswick, NJ area, participated in this study. The original sample consisted of 68 subjects; however, because only ~35% completed the 12 week post test we were forced to restrict our analysis from baseline to 8 weeks which resulted to an analytic sample of 34. To test our hypothesis and to analyze the relationship between our independent variables, correlations were performed. Multivariate linear regression models were also conducted to further analyze the significant relationship observed between acculturation and BMI and acculturation and marianismo beliefs.

**Independent Variables**

- Acculturation
- Marianismo Beliefs
- BMI and Body Weight

**Dependent Variables**

- Physical Activity
- Baseline BMI
- Weight at 8 weeks

**RESULTS**

**Profile of Baseline and week 8**

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>30.57</td>
<td>4.60</td>
<td>22.00</td>
<td>38.80</td>
</tr>
<tr>
<td>34</td>
<td>35.25</td>
<td>4.60</td>
<td>22.00</td>
<td>38.80</td>
</tr>
<tr>
<td>34</td>
<td>35.25</td>
<td>4.60</td>
<td>22.00</td>
<td>38.80</td>
</tr>
</tbody>
</table>

**BMI at baseline**

- **Marianismo Beliefs**
  - .48**
  - .01

- **Acculturation**
  - .16

- **Weight at 8 weeks**
  - .689

**BMI at 8 weeks**

- .50**

**Physical Activity**

- Weight at 8 weeks
  - .689

**Multiple linear regression**

- Baseline BMI: .30, p=.05
- Weight at 8 weeks: .68, p<.05

**Estimated Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Acculturation</th>
<th>Baseline BMI</th>
<th>Weight at 8 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>.48**</td>
<td>.30</td>
<td>.68**</td>
</tr>
<tr>
<td>Model 2</td>
<td>.48**</td>
<td>.30</td>
<td>.68**</td>
</tr>
<tr>
<td>Model 3</td>
<td>.48**</td>
<td>.30</td>
<td>.68**</td>
</tr>
</tbody>
</table>

**HYPOTHESES**

- Increased acculturation is associated with elevated weight and BMI.

**STRENGTHS**

- Our findings affirmed results from other studies indicating that higher acculturation is associated with elevated weight or BMI, higher acculturation and higher marianismo beliefs decreases engagement in physical activity. Findings from this study will also shed some light regarding the association between acculturation and marianismo beliefs.

**IMPLICATIONS**

- Expanding and shifting the boundaries of public health research to include all the possible dynamics that may affect obesity, and analyzing the additive, interactive and independent effect will enhance our understanding of health disparities among the Latino population and will promote more effective intervention and implementation of policy solutions that are consistent with major findings.

**DIRECTIONS FOR FUTURE RESEARCH**

- Acculturation should be studied in other racial and ethnic groups to see if the trend observed between obesity and acculturation hold true for more than just the Latino population.

**SUMMARY OF KEY FINDINGS**

- Immigrant Latinas with low acculturation may be willing to engage in more physical activity compared to those with higher acculturation.

- Latinas with moderate to high marianismo beliefs may be less likely to participate in physical activity.

- As BMI increases, physical activity decreases.

- Increased acculturation increases, marianismo beliefs decrease.

**LIMITATIONS**

- Generalizability is a limitation in this study, so the results must be interpreted with caution.
  - The sample was a homogeneous group of low acculturated immigrant Latinas (most of whom were from Mexico) with moderate to high marianismo beliefs.
  - Small analytical sample size of 34.
  - The PAIL study only contained immigrant Latinas from the New Brunswick, NJ area therefore this study may not be representative of the overall Latino population in the U.S.

**THE PROBLEM**

Latino, or persons of Hispanic descent, comprise nearly 10% of the total US population and are the fastest growing minority group in the US. This increase in population is paralleled by a rising prevalence of overweight and obesity among Hispanic residents of the U.S. Though rates of obesity and overweight are high globally, Latina women have higher rates of overweight and obesity compared to Asian and Caucasian women in the US (Fuentes-Allick and Hessol, 2008).

**OBJECTIVE**

To examine the influence of acculturation, marianismo beliefs and body weight on participation in physical activity among immigrant Latina, and to provide insight into the major sociocultural, environmental, and gender related factors which influence the health promoting behaviors of Latina women. Of particular interest is to determine which of the aforementioned factors will be the strongest predictor of physical activity and to determine the relationships among the predictors. This study explores the following hypotheses:

- More participation in physical activity
- High marianismo beliefs among immigrant Latina
- Weight at 8 weeks among immigrant Latina
- Lower physical activity engagement
- Lower physical activity engagement

**HYPOTHESES**

- More participation in physical activity
- High marianismo beliefs among immigrant Latina
- Weight at 8 weeks among immigrant Latina
- Lower physical activity engagement
- Lower physical activity engagement