

Acculturation, Body Mass Index, Waist Circumference, and Physical Activity in Mexican Origin Women

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ABSTRACT

Background: Longer time in the United States (US) is associated with increased risk of obesity in Hispanic immigrants, particularly for women. Although previous research has established an association between nutrition and acculturation, little attention has focused on physical activity. **Purpose:** In this study, we examine the associations between acculturation on Mexican origin women's body mass index (BMI), waist circumference (WC), and report of moderate to vigorous physical activity (MVPA). **Methods:** Mexican origin women ≥ 18 years ($n=120$) from South Carolina ($n=60$) and Texas Lower Rio Grande Valley ($n=60$) completed a survey and anthropometric measures. Participants reported MVPA in hours per week, country of birth, age at migration (<16 years, 16-25 years, and ≥ 26 years), and language use. Using these latter two as indicators of acculturation, we evaluated associations between acculturation and BMI, WC, and MVPA. **Results:** Age standardized means for BMI indicated lowest BMI and waist circumference measures among women either with middle-range English language proficiency or who had immigrated to the US between the ages of 16-25; however, the relationship with BMI was more robust. Age standardized means for MVPA show that women who migrated at younger ages (<16 years) had the lowest MVPA levels, followed by those migrating as younger adults (16-25 years), then adults (≥ 26 years). Similarly, women with lowest English proficiency levels had the lowest reported MVPA and those with highest English proficiency had highest reported MVPA. **Conclusions:** The relationship between acculturation and obesity and MVPA is multifaceted. While the relationship between MVPA and the two indicators of acculturation appear to be linear, the direction of association varied by acculturation indicator. Moreover, the association with acculturation indicators and measures of obesity was not linear. The findings from this study have implications in how

researchers interpret the relationship between acculturation, obesity and obesity risk factors.

KEY WORDS: Acculturation, Physical Activity, Body Mass Index, Mexican, Women, Waist Circumference

Learning Objectives:

After reviewing the presentation, the viewer will be able to:

1. Define acculturation and describe how it is measured.
2. Demonstrate an understanding of social cultural context in relation to Mexican origin women's body mass index (BMI), waist circumference (WC), and report of physical activity (PA).