

Abstract Title: Weight status and food security of Latin-American immigrant mothers and their school-aged children living in Ottawa versus Mexican mothers and their school-aged children.
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Introduction: Migration is a process that impacts weight status and food security (FS) of immigrants. Lack of FS has been linked with increased risk of overweight/obesity.

Objective: To compare the weight status and FS level between Latin-American immigrant mothers and their school-aged children living in Ottawa and Mexican mothers and their children in Hidalgo (Mexico).

Methods: A transversal descriptive and comparative study was carried out in a convenience sample of 101 mother-child dyads. We recruited 49 Mexican mothers in Hidalgo and 52 Latin-American immigrant mothers in Ottawa, having a child aged 6-12 years old. Weight and height of children and mothers were measured. Their body mass index (BMI) was calculated. Children's BMI-for-age and sex was compared to World Health Organization (WHO) growth references. Overweight was defined as percentile >85th, obesity >95th. For adults, WHO BMI cut-offs were used. FS was assessed in both countries with the Household Food Security Survey Module Adult and Child Scales. FS categories were food secure or marginally, moderately, or severely food insecure.

Results: Children living in Mexico had a higher prevalence of overweight and obesity (41%) compared to Latin-American children living in Canada (33%), without statistically significant difference ($p=0.33$). Mexican mothers had a significantly higher prevalence of overweight and obesity than Latin-American immigrant mothers (77.5% vs. 63.4%, $p=0.005$). Household Food Security was significantly better in immigrant dyads than in Mexican dyads: 84.6% vs 40.8% ($p<0.001$).

Conclusion: Weight status and FS level of Latin-American immigrant mothers and their children were better in Canada than in Mexico. Still, both were worse than the Canadian-born population; prevalence of overweight and obesity for women 53.1%, 31.4% for children and FS rate of 87.9%. The high prevalence of overweight and obesity found may be partly explained by food insecurity.

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