Depressive symptoms and weight status among women recently immigrating to the US

Authors: Stephanie Anzman-Frasca¹, Christina D. Economos², Alison Tovar³, Rebecca Boulos⁴, Sarah Sliwa⁵, David M. Gute⁶, Alex Pirie⁷, Aviva Must⁸,a

¹ Department of Pediatrics, School of Medicine, University at Buffalo, Buffalo, NY, USA
² Friedman School of Nutrition Science and Policy, Tufts University, Boston, MA, USA
³ Department of Nutrition and Food Sciences, University of Rhode Island, Kingston, RI, USA
⁴ School of Community & Population Health, University of New England, Portland, ME, USA
⁵ Division of Population Health, National Center for Chronic Disease Prevention and Health Promotion, US Centers for Disease Control and Prevention, Atlanta, GA, USA*
⁶ Department of Civil and Environmental Engineering, School of Engineering, Tufts University, Medford, MA, USA
⁷ Immigrant Service Providers Group/Health, Somerville, MA, USA
⁸ Department of Public Health and Community Medicine, School of Medicine, Tufts University, Boston, MA, USA

a Corresponding author:
Aviva Must, PhD
136 Harrison Avenue
Boston, MA 02111
Phone: 617.636.0446
Email: aviva.must@tufts.edu

Notes:
Drs. Anzman-Frasca, Tovar, Boulos, and Sliwa were with the Friedman School of Nutrition Science and Policy at Tufts University when this study was conducted.

This article was edited by Sarah Sliwa in her private capacity. No official support or endorsement by the Centers for Disease Control and Prevention, Department of Health and Human Services is intended, nor should be inferred.

Word count: 3,469
ABSTRACT

Objective

Depressive symptoms have been associated with obesity. Little is known about this relationship among immigrants. We examined relationships between depressive symptoms and weight status in immigrant women from three ethnic groups.

Methods

Participants were Brazilian, Haitian, and Latina women (n=345) enrolled in Live Well, a community-based, randomized intervention designed to prevent weight gain in recent immigrants. Study data are from baseline when participants completed the Center for Epidemiological Studies Depression Scale (CES-D), Perceived Stress Scale, a physical activity questionnaire, and socio-demographic questions; BMI was calculated from measured height and weight.

Results

Forty-four percent of participants (36% of Brazilians, 66% of Haitians, 30% of Latinas) had high depressive symptoms (CES-D >16), and 38% (26% of Brazilians, 49% of Haitians, 42% of Latinas) were obese (BMI >30.0). Those reporting more depressive symptoms were more likely to be obese (Wald chi-square = 4.82, p<.05). An interaction between depressive symptoms, ethnic group, and income was revealed (F(4,340)=2.91, p<.05), such that higher depressive symptoms were associated with higher BMI among Brazilians earning >$30,000 per year and with lower BMI among Brazilians earning <$30,000. The relationship between depressive symptoms and obesity did not differ by income among Haitians or Latinas.

Conclusions

Depressive symptoms and obesity were highly prevalent among these recently-immigrated women. Positive relationships between these variables were consistent across ethnic and income groups, with the exception of lower-income Brazilians. While these findings suggest similar patterns and health needs across several groups of immigrants, cultural differences should be considered when addressing these health conditions.

Keywords: depressive symptoms, obesity, immigrants, women
SIGNIFICANCE

What is Already Known on this Subject?

Immigrants to the US are at increased risk of both depressive symptoms and obesity as time in the US increases. Most research on this subject, however, has focused on Latinos. Less is known about the prevalence of and relationship between depressive symptoms and obesity in immigrants from other ethnic groups.

What this Study Adds?

Depressive symptoms and obesity were prevalent and positively associated in this sample of Brazilian, Haitian, and Latina immigrant women, providing rationale for intervention and policy efforts to address these comorbid health conditions.

ACKNOWLEDGMENTS

The authors would like to thank the members of the Live Well Steering Committee (Nesly Metayer, Franklin Dalembert, Raymond R. Hyatt, Christina Luongo-Kamins, Warren Goldstein-Gelb, Maria Landaverde, Melissa McWhinney, Joyce Guilhermino de Pádua, Helen Sinzker, Heloisa Galvão, Emily Kuross Vikre, Kerline Tofuri, and Ismael Vasquez) and the Live Well participants for participating in this study. The authors are also grateful for Peter Bakun’s assistance with data management. Funding for this research was provided by grant 5R01HD057841 and P30DK46200 from the National Institutes of Health.

DISCLOSURE OF POTENTIAL CONFLICTS OF INTEREST

The authors declare no conflicts of interest.