

Mediation of the association between sociodemographic characteristics and psychosocial well-being by food insecurity among Mexican and U.S. Mexican American adults in 2021

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Background

- Food insecurity (FI) is a stressor that can cause feelings of isolation, negative social interactions, emotional turmoil, and undernutrition, affecting well-being¹
- FI disproportionately affects households in Mexico and Hispanic households, especially Mexican immigrant households in the U.S.^{2,3}
- Age⁴, sex⁵, household composition⁶, income⁷, educational attainment⁸, acculturation⁹, and Indigenous identity¹⁰ are associated with FI, suggesting that associations between sociodemographic characteristics and psychosocial well-being may be partially due to FI

Aim

This study aimed to determine whether FI mediated the association between sociodemographic characteristics and psychosocial well-being differently among Mexican and U.S. Mexican American adults

Methods

Assessing FI and well-being

- FI was assessed using the Household Food Security Survey Module, scored 0 (no FI) to 10
- Respondents were asked to describe the amount of stress in their lives, scored 1 (not at all stressful) to 5 (extremely stressful), and their mental health in general, scored 1 (poor) to 5 (excellent), to measure well-being

Analysis in Stata (v.15.1)

- 5,958 Mexican and 3,566 Mexican American adults ≥ 18 years old participated in the International Food Policy Study online survey between Nov-Dec 2021
- Structural equation modeling (sem command) with full information maximum likelihood was used to estimate FI mediation
- Analyses were stratified by country, with sampling weights applied
- Analysis was run with each variable to check for mediation, following a model including all variables
- Regressed the stress and mental health variables on each sociodemographic characteristic, recoding the variables as needed to meet the linear assumption

Calculating the percentage of mediation

$$\frac{\text{indirect path coefficient}}{(\text{direct path coefficient} + \text{indirect path coefficient})} * 100$$

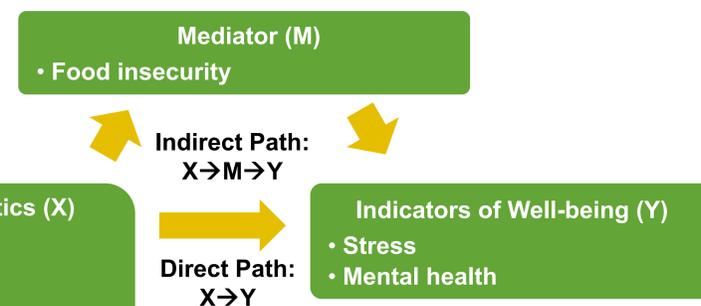


Figure 1. Conceptual model for the mediation analysis

Results

Comparing FI scores

- Mean FI score was similar between strata (3.04 Mexicans v. 3.31 Mexican Americans)

Associations between the sociodemographic characteristics and FI

- Younger adults, females, households with more children, individuals with lower income adequacy and educational attainment, Indigenous Mexicans, and U.S. Mexican Americans who chose to answer the survey in English experienced greater FI

Table 1. Sample characteristics in the Mexico sample (n=5958) and Mexican American sample (n=3566)

Sample Characteristics	Mexico Sample %	Mexican American Sample %
Sociodemographic characteristics:		
Age*	38.7	36.8
Sex		
Male	50	45
Female	50	55
Number of children in the home		
Zero	20	22
One	38	35
Two	31	27
Three or more	11	16
Income adequacy		
Very difficult	11	11
Difficult	31	22
Neither	41	39
Easy	13	18
Very easy	4	10
Educational attainment		
Low	42	51
Medium	12	24
High	46	25
Indigenous identity		
Non-Indigenous	79	---
Indigenous	21	---
Language preference		
English	---	87
Spanish	---	13
Indicators of well-being:		
Stress		
Not at all stressful	7	6
Not very stressful	28	20
A bit stressful	51	48
Very stressful	12	18
Extremely stressful	2	8
Mental health		
Poor	4	10
Fair	15	25
Good	42	32
Very good	27	21
Excellent	12	12

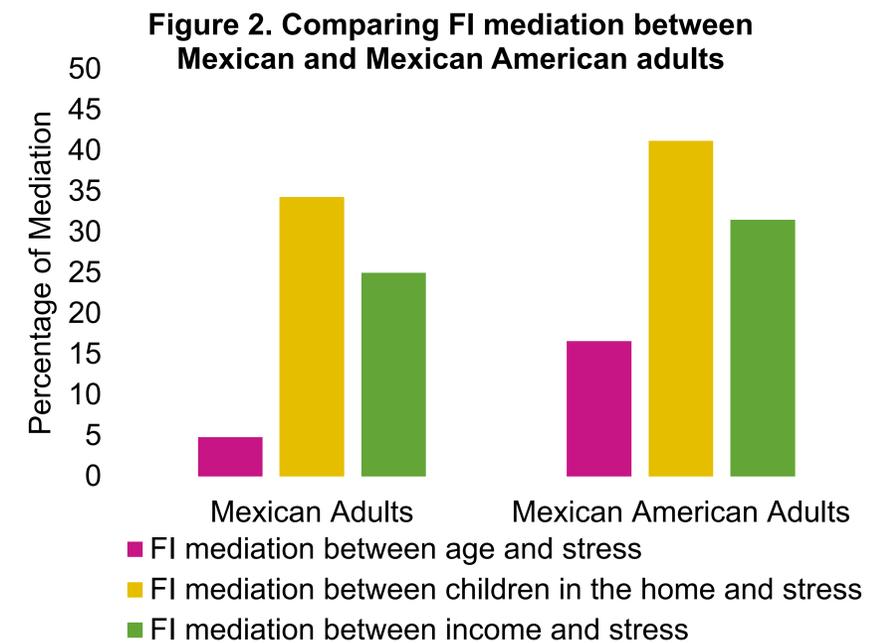
*Mean for age

Associations between FI and well-being

- FI was positively associated with stress among Mexicans (0.039, p<0.001) and Mexican Americans (0.065, p<0.001)
- FI was negatively associated with mental health among Mexicans (-0.022, p=0.001)
- FI was not associated with mental health among Mexican Americans (-0.004, p=0.595)
 - FI was not a mediator among Mexican Americans when considering mental health

FI mediation

- FI mediated all associations between sociodemographic characteristics and stress in both strata and mental health among Mexicans only



Implications

FI partially explained the association between sociodemographic characteristics and well-being, underscoring that actions to address FI may improve the well-being of Mexicans and Mexican Americans

Acknowledgements

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