

Cambio de Colores
June 8-10, 2016

IOWA STATE UNIVERSITY

Human Development and Family Studies

Effects of Food Insecurity and Family Rituals on Rural Latina Immigrant Mothers' Mental Health

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June 8th, 2016

Rural Latina Mental Health

- Rural areas are new gateway communities for Latino immigrant families.
- Latino immigrants are at high risk for poor mental health.
- Latinas are more likely than Latino men to experience poor mental health.
- Latinas are less likely to access formal mental health services than U.S. population as a whole.



Food Insecurity and Mental Health

	Latinos in U.S.	U.S. Population
Poverty	23.6%	14.8%
Food Insecurity	22.4%	14.0%

Source: 2015 USDA household report.

Food insecurity: Uncertainty about future food availability and access, insufficiency in the amount and kind of food required for a healthy lifestyle, or the need to use socially unacceptable ways to acquire food (National Research Council, 2006)

Psychological stress manifested from food insecurity places individuals at high risk for poor mental health.

Family Rituals are situated in patterned family interactions, family celebrations and traditions.

Commonly, for Latinos, high value is placed on “family”

- Family is everything
- Members take care of each other, socialize together
- Regular family meals comprised of food cooked from scratch

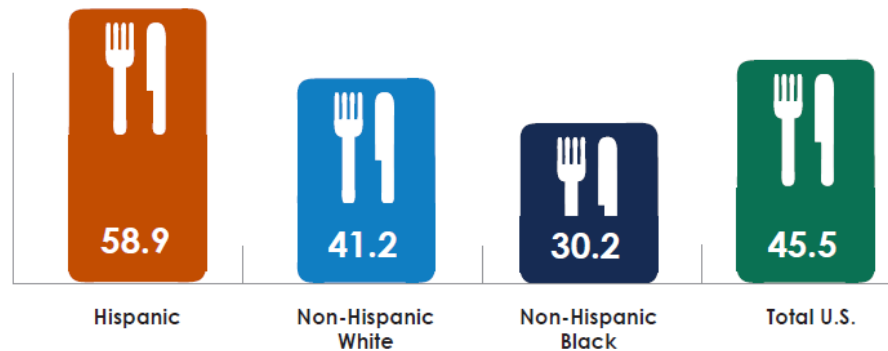


Hispanic children are more likely to eat home-cooked meals with family



FAMILY

Of all children living in families, percent who ate seven or more home-cooked meals with their family in the past week, 2009-2010



Child Trends
hispanic
institute

Televisa
FOUNDATION

Hispanics can be of any race. All race/Hispanic origin data are self-reported.

Source: Child Trends' analysis of National Health and Nutrition Examination Survey data.

Cite from Murphey, D., Guzman, L., & Torres, A. (2014). America's Hispanic Children: Gaining Ground, Looking Forward. Publication# 2014-38. *Child Trends*.

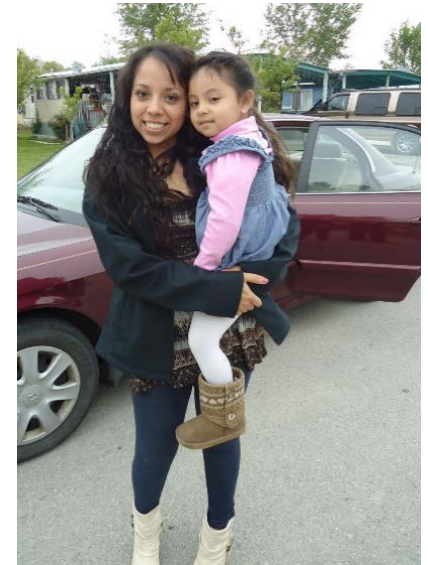
Eating home-cooked meals with family may lead to better mental health

- **Healthy meals**
- **Family connectedness**

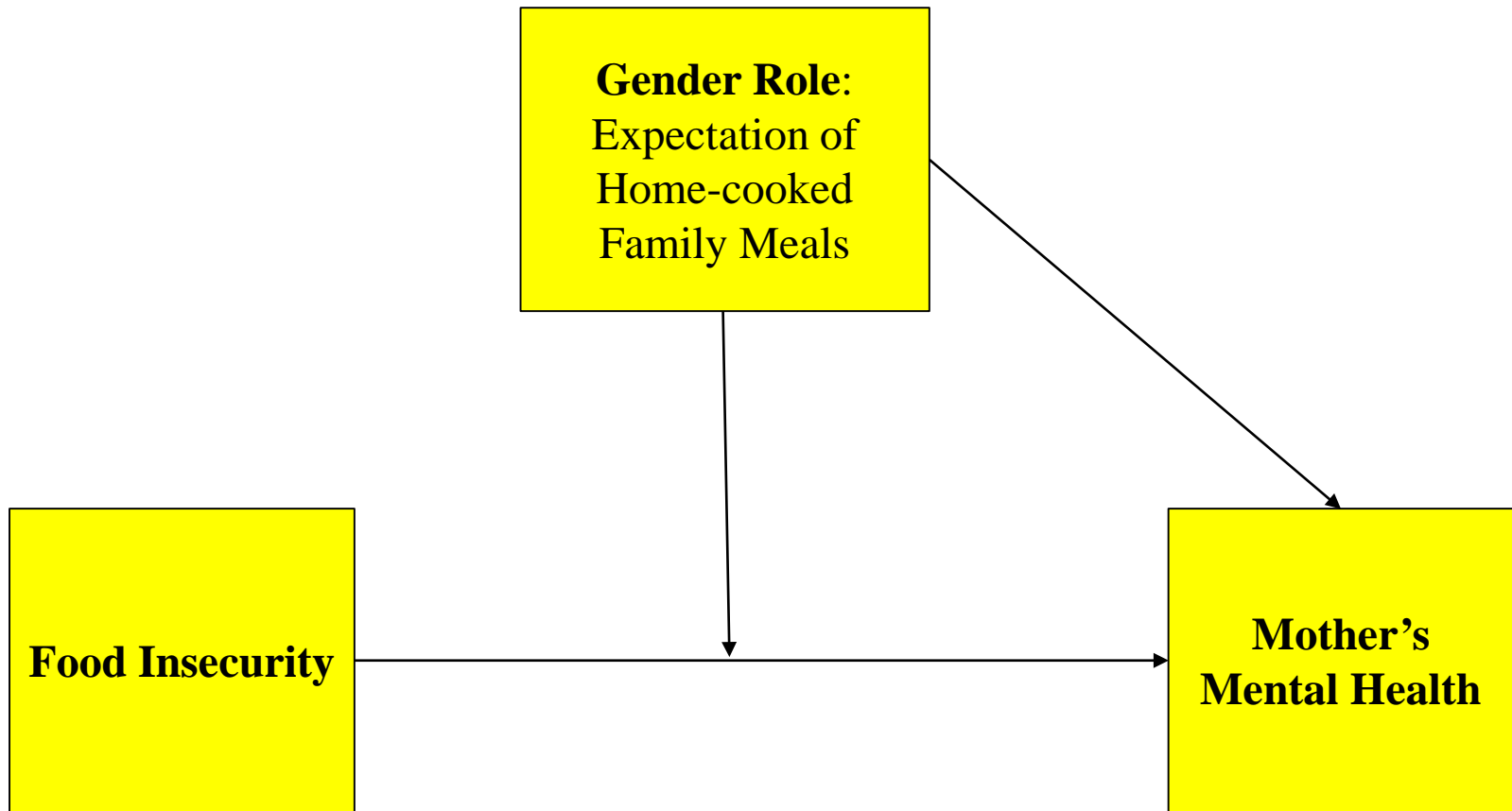
Role Theory

- **Gender roles** based on societal expectations based on stereotypes and division of labor by gender (Eagly, 1987).
- Role segmentation is especially prevalent in modern urban society.
- Conflict between the culturally mandated role and any other a woman might select, exercises a pull on individual decisions **toward the culturally preferred mode** (Coser, 1991).

- Commonly, rural Latina immigrants' roles have been defined as wife and mother.
 - Gatekeepers of healthy food and health
 - Expectation of home-cooked meals
- Eating patterns change as families adopt U.S. life style.
- Few studies have examined the influence of gender roles moderating the relation between food insecurity and mental health.



Conceptual Framework



Research Questions



- What is the relationship between food insecurity and mental health among rural Latina immigrant mothers?
- Would expectation of home-cooked family meals moderate the effect of food insecurity on Latina immigrant mothers' mental health?

Sample

- *Rural Families Speak about Health* (RFSH): Examined the physical and mental health of diverse rural low-income families with young children across 11 states (data collected 2010-12).
- This study based on data from subsample of 98 first generation Latina immigrant mothers in Iowa.
- Participation Criteria:
 - First generation Latina mothers ≥ 18 years old
 - Had at least one child age < 13 years old
 - Lived in small rural communities (UIC ≥ 5)
 - Household incomes $\leq 185\%$ of Federal Poverty Level
- In-person computer assisted interviews (2hrs)

Latina Immigrant Mothers

Age (Range: 18-66 years)	33.29 (8.46)
Education	
≤ High School/GED	80.6%
Some college	17.4%
≥ Bachelor degree	2.0%
Married or living with a partner	87.8%
Household Annual Income	
< \$30,000	50.2%
\$30,000-\$45,000	33.7%
\$45,000-185% of FPL	6.1%
Employed outside home	31.6%
Household size	5.04 (1.55)

Dependent Variable: Mothers' Mental Health

12-Item Short-Form Health Survey (SF-12v1)

- Two scales:
 - ✓ Physical and Mental Health Composite Scores (PCS-12 & MCS-12)

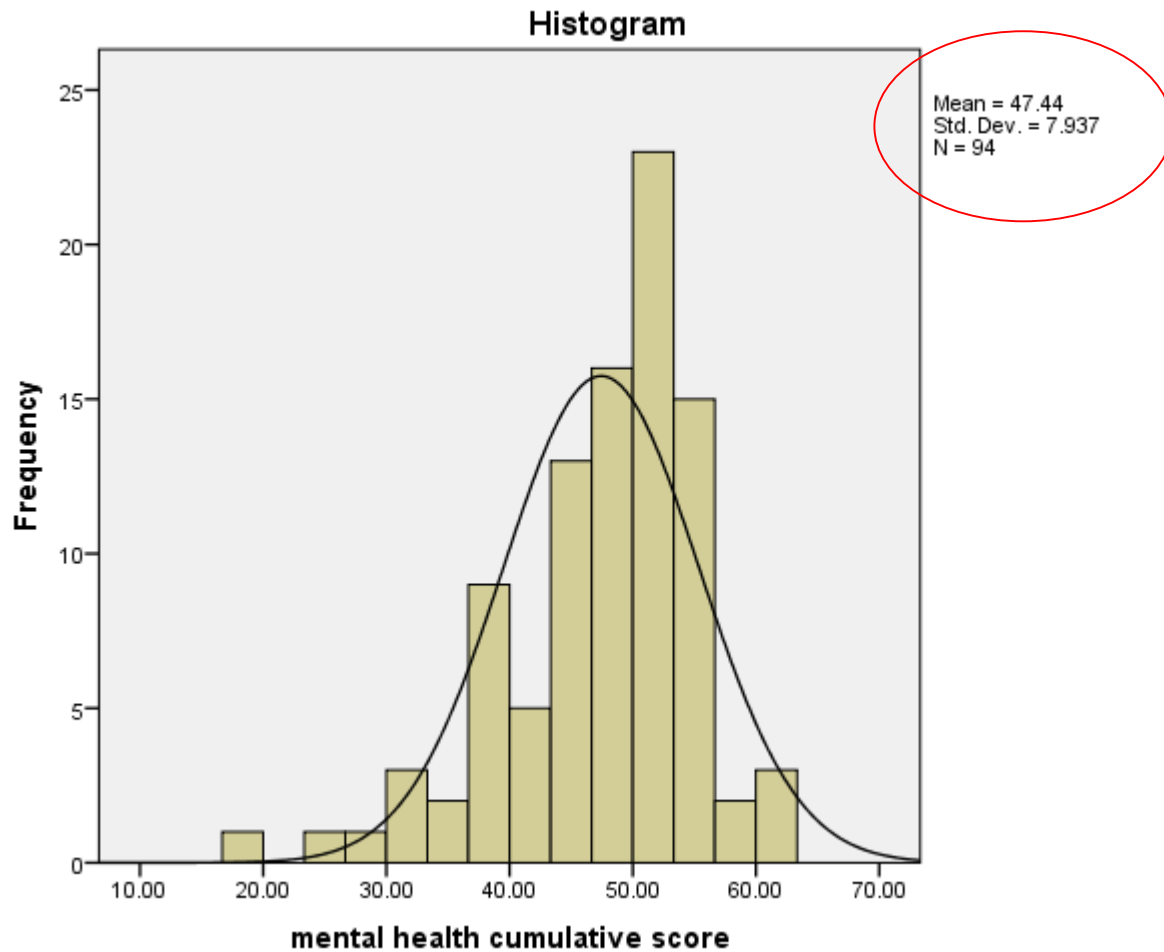
MCS-12

- Range: 0-100
 - ✓ 0: the lowest level of health
 - ✓ 100: the highest level of health

Sample question:

- How much of the time during the PAST 4 WEEKS have you felt calm and peaceful?

A national norm of the mean score is 50.0 and the standard deviation is 10.0



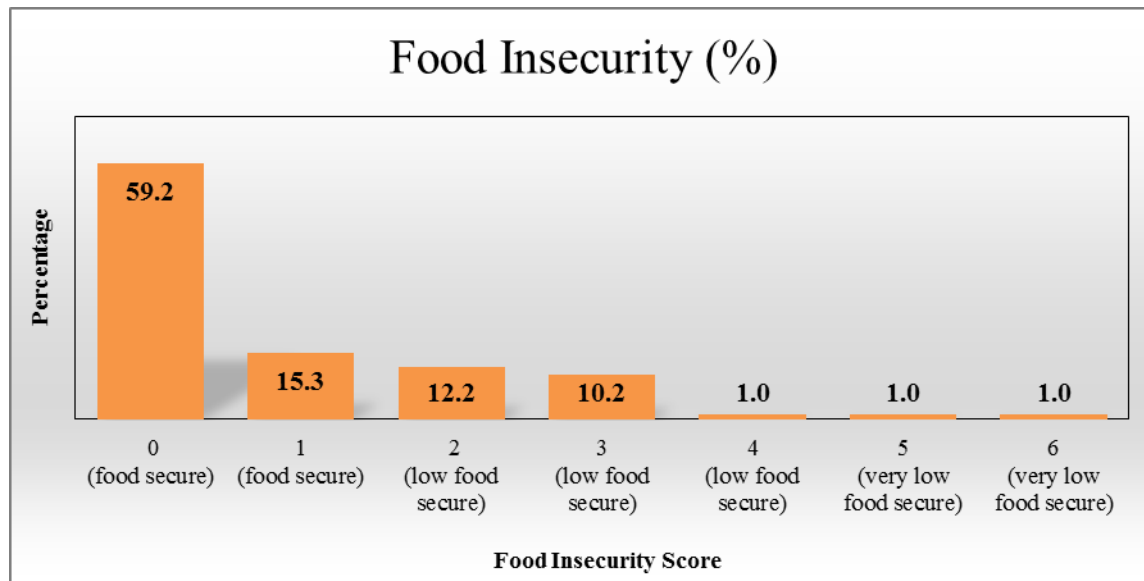
The rural Latina immigrant mothers on average had **lower mental health score** and with **less variation** on the mental health scale (MCS) than the U.S. norm (M=50; SD=10), and the difference is statistically significant.

Independent Variable: Food Insecurity

6-Item Short Form of the USDA Household Food Security Module

Sample questions:

- The food that I/we bought just didn't last, and I/we didn't have money to get more.
 - In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?
- Chronbach's alpha reliability = 0.70.



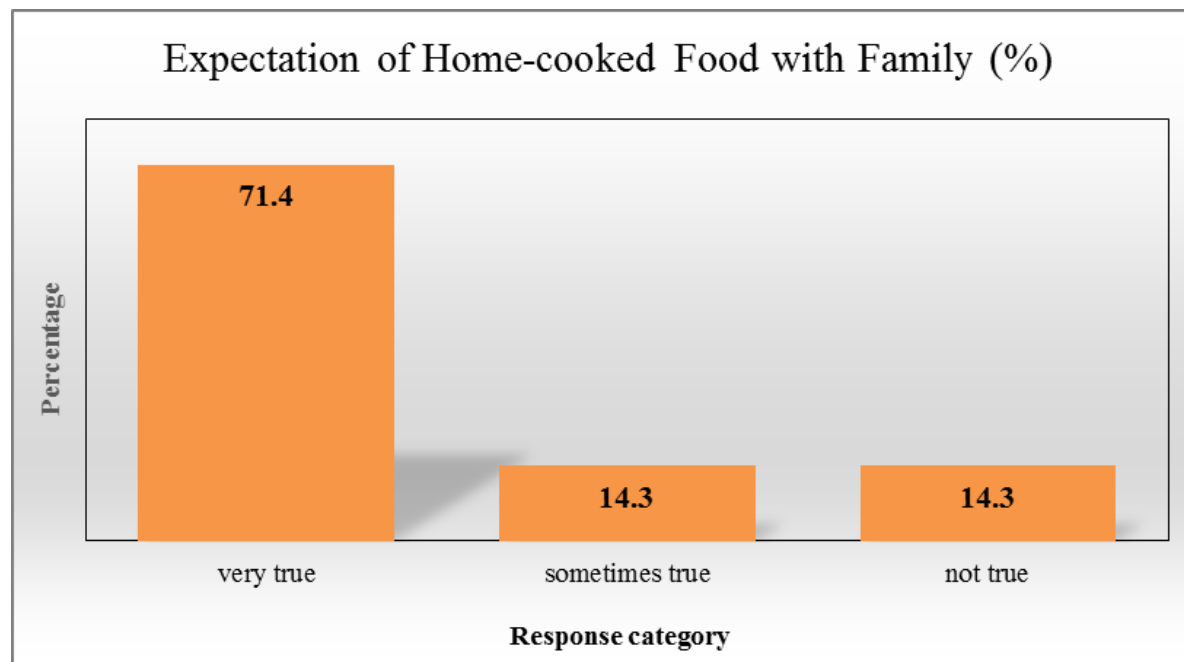
Moderator: Expectation of Home-cooked Meals with Family

Originally from the adapted version of Family Rituals Questionnaire (FRQ)

- Measure family daily routines as well as family based rituals

Expectation of Home-cooked Meals with Family (EHMF)

- 3 categories → reverse recode:
 - ✓ 0: very true [reference], 1: sometimes true 2: not true of our family



Control Variables

- Initially, age, marital status, education, employment, family income, family size were all included.
- Correlation analysis between mental health and the above controls, only marital status was significant.
- Marital status
 - recoded as dummy variables
 - ✓ 0=“married or living with a partner” [reference]
 - ✓ 1=“single”
- *Reference string (advantaged group)*
 - married, food secure, often true of their family for expectation of home-cooked food with family.

Results

Predictors	Model 1		Model 2		Model 3	
	Estimate	Std. Error	Estimate	Std. Error	Estimate	Std. Error
Intercept	49.31***	.99	49.82***	1.03	50.49***	1.06
Marital Status	-4.99*	2.44	-4.21+	2.47	-3.10	2.48
Food Insecurity (FI)	-1.48*	.61	-1.30*	.62	-2.32**	.77
Expectation of home-cooked Meals with family (EHMF)			-1.78	1.12	-3.50*	1.36
Interaction: FI*EHMF					1.51*	.79

*Note: + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.*

Results-moderation graph

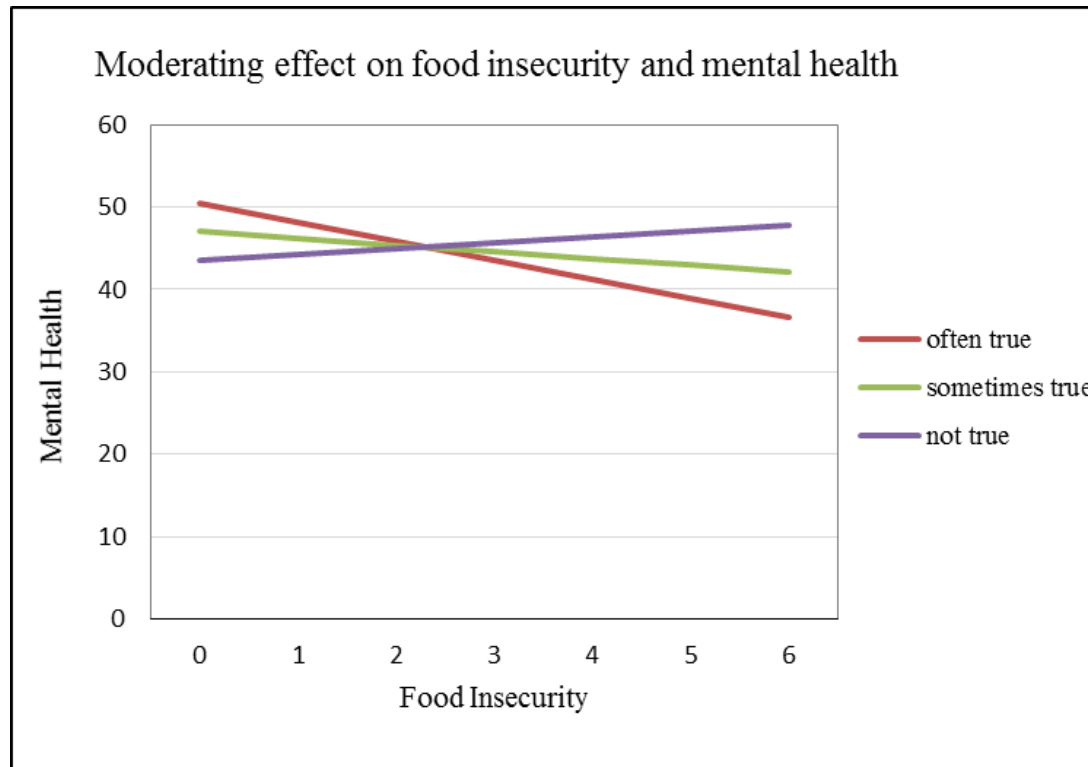


Table. Results of the simple slope tests

Moderator value	Estimate	SE	T-value	P-value
Often true=0	-2.322	0.773	-3.004	p=0.0035
Sometimes true=1	-0.81	1.482	-0.5466	p=0.586
Not true=2	0.702	2.191	0.3204	p=0.7494

Model Fit

	R²	Adjusted R²	F test (p value)
Model 1	10.0%	8.1%	5.07 (0.008)
Model 2	12.5%	9.6%	4.28 (0.007)
*Model 3	16.7%	13.0%	4.48 (0.002)

*Model 3 was the best at explaining variations in mothers' mental health.

p value for model 3 F-test was less than 0.01, suggesting a good fit of our model.

Findings:

- Latina immigrant mothers who were married, lived in households that were food secure, and who held an expectation of preparing and serving home-cooked meals, had mental health scores similar to the U.S. norm (intercept=50.49).



Findings:

- Higher prevalence of food insecurity was related to poorer mental health among mothers.
- When interacting with food insecurity, mothers' expectation of home-cooked family meals changed the relationship between food insecurity and mothers' mental health.
- High expectation of home-cooked meals with family would **elevate** the negative effects of food insecurity on mothers' mental health.



Limitations

- Small sample size (N=94)
 - Sampling bias
- One item measure of expectation of home-cooked food with family
 - Unknown reliability
- Cross-sectional data from rural area in one state
 - Unable to take account for the individual differences across time
 - Limited generalizability

Implications: Research

- Examine if the moderating effect of expectation of home-cooked family meals on food insecurity and mental health is consistent across larger Latina populations.
- Use mixed methods to further understand and enrich the meanings behind these variables and their relationships to one another.
- Conduct longitudinal study to estimate the trajectories of food insecurity, mental health and food related family routines and rituals, and examine the pattern of change over time among Latina immigrant families.

Implication-Practice



Thank you! 😊
Questions?