

Transgenerational Mechanisms Associated with Weight Gain in Mexican-origin Youth

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Background

- According to the CDC, ~40% of Mexican American children are overweight or obese
- Childhood obesity is a strong risk factor for adult obesity
- Characteristics of both the parent and child may contribute to child weight gain
- Identifying factors that increase risk/promote resilience to obesity will inform more effective prevention/intervention programs
- This research addresses transgenerational mechanisms associated with weight gain across adolescence in Mexican-origin youth with these questions:
 - Are state and trait aspects of psychological functioning of both the parent and child associated with child's weight gain?
 - Is parent BMI associated with child's weight gain? Does this association vary by parent?

Method

Sample

- Participants were from the California Families Project (N=674 families), a longitudinal study of Mexican-origin youth
- Parents and children completed measures at child ages 12, 13, 14, and 15 years old

Measures

- **Body mass index.** Parent and child BMI was derived (kg/m^2) from reported weight/height
- **Distress.** Parents and children completed the Mini-Mood & Anxiety Symptom Questionnaire, a measure of symptoms of anxiety and depression
- **Conscientiousness.** Parents and children completed the Ten Item Personality Inventory

Analysis

- A linear growth curve model (GCM) was used to estimate child weight gain from ages 12-15, controlling for family SES and child gender
- Parent and child factors were then included to predict the mean-level (intercept) and change (slope) in BMI across the follow-up period

Contact Information

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Results

Fig 1. Growth Curve Model of Adolescent BMI

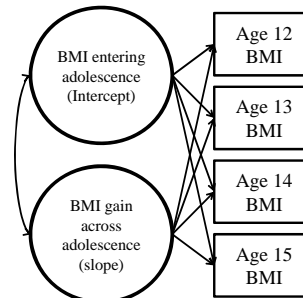


Table 1. Parameter Estimates from basic GCM

	Means	Variances
Intercept	21.74 (.18)*	16.53 (1.11)*
Slope	.72 (.07)*	.61 (.08)*

* $p < .05$.

Table 2. Effect of Predictors on Adolescent Growth

	Intercept	Slope
Distress		
Parent Anxiety	.14 (.06)*	-.01 (.01)
Parent Depression	.16 (.09)+	-.02 (.02)
Child Anxiety	.00 (.06)	-.01 (.01)
Child Depression	.06 (.11)	-.05 (.03)
Personality		
Parent Conc.	-.14 (.06)*	-.02 (.02)
Child Conc.	-.19 (.07)*	-.04 (.02)*
Parent Weight		
Parent BMI	1.34 (.19)*	.15 (.05)*
Mother BMI	1.35 (.19)*	.07 (.05)
Father BMI	.85 (.21)*	.16 (.05)*

* $p < .05$.

+ $p < .10$.

Fig 2. Effect of Predictors on Adolescent BMI

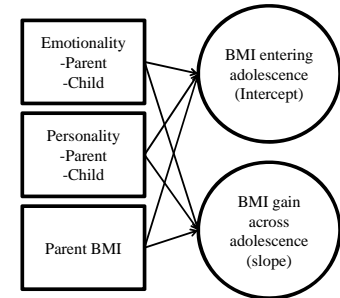


Fig 3. Effect of parent distress on adolescent BMI

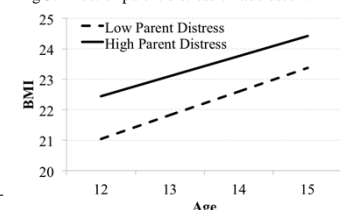


Fig 4. Effect of Conscientiousness on adolescent BMI

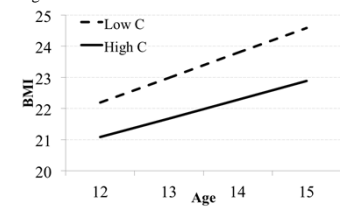
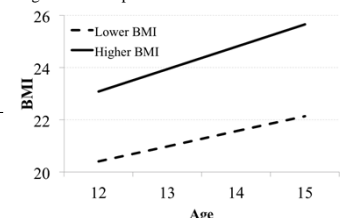


Fig 5. Effect of parent BMI on adolescent BMI



Summary

- On average, participants were overweight and gained about $\frac{3}{4}$ of a BMI point per year
- Parent psychological functioning was associated with their child's weight when entering adolescence, but was unrelated to growth across adolescence
- Child's Conscientiousness was associated with healthier weight and weight gain
- Parent BMI was a strong predictor of weight and weight gain; father's BMI was surprisingly more important than mother's BMI for weight gain across adolescence

Conclusions

- Mother's BMI matters more for weight when entering adolescence; father's BMI matters more for weight gain across adolescence
- Parents' psychological functioning may matter more for child's weight earlier in childhood than in adolescence
- Child's own Conscientiousness matters for both where they start and how much they gain across adolescence