

# Chaos Through an Ecocultural Lens: Concordance Between Subjective and Objective Measures of Home Chaos in Latinx Families

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## Introduction

Chaos in the home, such as noise, disorganization, and a lack of routine can negatively affect child development and adversely impact the child-parent relationship and family functioning (Nelson et al., 2009). Stressors such as exposure to environmental chaos can also impact both the parents' and child's physical and mental health (Coley et al., 2015).

Research states that there are three essential aspects of chaos to consider as chaos is approached through an ecocultural lens: 1) subjective, 2) objective, and 3) links to well-being (Weisner, 2002).

Although past literature demonstrates the consequences of chaos, research has yet to utilize Weisner's perspective to examine what chaos means in the Latinx community and whether there is a connection between our objective and subjective measures of this construct among Latinx families.

### Research Question:

What is the concordance between objective (recordings of a child's language and listening environment) and subjective (parent perception) measures of chaos in the home among Spanish-speaking Latinx families?

## Method

### Participants:

Participants included a sample of 19 Latinx families who participated in a larger study of environmental noise and child language among Spanish-speaking families.

Average family income was \$65,000 per year, most families had more than 5 total members in the home, and 100% of the families were Spanish-speaking.

### Procedure:

Mothers completed a series of surveys reporting on their household chaos and measures of parent-child interactions. A Language Environment Analysis (LENA) device was worn by the child at home to measure various aspects of noise in the environment.

### Measures:

#### Mother-Reported Home Chaos -- Confusion, Hubbub, and Order Scale (CHAOS; Matheny et al., 1995)

Mothers responded to 15 statements about their home environments. A single score representing more chaos and disorganization in the home was obtained by summing the responses after reversing appropriate items.  $\alpha=.84$ , e.g., "There is often a fuss going on at our home"

#### Objective Home Chaos – Environmental noise in the home

Noise, percentage of overlapping speech, signal-to-noise ratio, percentage of time the noise on the recording was greater than 70 decibels.

## Results

We tested our research question on concordance using partial correlations that controlled for family income and number of children in the home. These demographic factors were related to greater parent-report chaos and percentage of overlapping noise from the LENA recordings. Interestingly, mother-reported chaos was unrelated to all objective measures of noise in the home environment.

**Table 1. Partial Correlations Between Mothers' Perceptions of Home Chaos and Objective Home Environment Noise**

Control Variables		Home Chaos	Percentage of Overlapping Noise	Noise	Signal-to-Noise Ratio	Signal-to-Noise Ratio Adjusted	
Income-to-Needs Ratio and Number of Children in the Home	Percentage of Overlapping Noise	Correlation	-.315				
		Significance (2-tailed)	.273				
	Noise	Correlation	-.226	.835			
		Significance (2-tailed)	.438	<.001			
	Signal-to-Noise Ratio	Correlation	-.017	-.635	-.874		
		Significance (2-tailed)	.955	.015	<.001		
	Signal-to-Noise Ratio Adjusted	Correlation	-.031	-.624	-.888	.993	
		Significance (2-tailed)	.916	.017	<.001	<.001	
	Percent of Noise >70db	Correlation	-.276	.643	.744	-.609	-.644
		Significance (2-tailed)	.339	.013	.002	.021	.013

## Discussion

Results suggest cultural specificity in what mothers perceive to be chaotic, with Latinx cultures differing from past research's portrayal of home chaos as noise and talking over one another. The lack of correlation between subjective and objective measures of chaos in the home suggests different aspects of routine and structure in the home environment contribute to Latinx mothers' perceptions of household chaos. There are plans to continue to gather quantitative and qualitative data from more participants for this study. More research and investigation on this matter with a larger sample size of Latinx mothers is an important next step to continue to account for the critical value that culture plays in psychology.

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