Mi Niño a la Hora de Comer: Concurrent Validation Methods Through Mealtime Observations and Preliminary Analyses

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Background
Parent feeding styles are considered effective targets for obesity prevention programs. One way to effectively include parent feeding into obesity prevention programs is to utilize self-assessments to inform programming. However, there are few validated tools that allow self-assessment of parent feeding in low-literacy audiences which are common in federally funded nutrition education programs. Moreover, higher rates of obesity in Hispanic and Latino children warrant the development of such tools in Spanish.

Objectives
The current project aims to validate Mi Niño a la Hora de Comer (Mi Niño), a Spanish language self-assessment tool with low-literacy demands. Parents’ behaviors during mealtimes in their homes will be used to assess the accuracy of Mi Niño in measuring mealtime behaviors.

The current aims are to:
1. Evaluate whether Mi Niño Measures identified categories of parent feeding behaviors.
2. Determine whether the target behaviors are demonstrated during the observed mealtimes.

Description
Participants
Participants (n=43) include a sub-sample of parents participating in the Niños Sanos project. All participants were parents with a preschool aged child living in the home and were recruited from Head Start and WIC sites in the Sacramento, CA region.

Procedure
Parents completed the Mi Niño tool in the presence of a researcher. Within two weeks participating families were contacted to schedule video-taping of a mealtime in their home. Families were asked to select a mealtime that was typical to their child feeding behaviors.

Video-taping occurred within two months of the completion of the Mi Niño tool.

The Mi Niño tool assesses 27 behaviors based on the My Child at Mealtime tool (Ontai et al., 2016). All behaviors are rated on a 4-point scale from “No/Rarely” to “Very Often.”

Nine parent behaviors were coded based on criteria adapted from a coding system developed previously for a similar English language tool. My Child at Mealtime. Inter-rater reliability was established on 30% of the videos (mean kappa = .82). All behaviors were adjusted for video length.

Evaluation

Mi Niño
Mi Niño responses were averaged together to produce three sub-scales that corresponded with the conceptual groupings for Structure, Autonomy Support and Control described by O’Conner et al. (2017).

Parent Feeding Behaviors
Principal components factor analysis was used to identify meaningful clusters of observed parent behaviors. Varimax rotation produced three factor structure, corresponding to Intrusive Control, Pressure, and Autonomy Support described by O’Conner et al (2017). Behavior RPMs were averaged together to create corresponding behavior groupings.

Conclusions & Implications
The Mi Niño tool appears to capture three of the primary feeding categories noted in the field. Further analysis will be conducted to determine whether the overlapping of the “control” and “structure” categories aligns with a separate fourth category of feeding behaviors.

The rate of behaviors observed within the three primary categories (~1 every 3 mins) was lower than reported in other lab-based studies (e.g. Johnson et al., 2017). Further analysis of the observed behaviors will be done to determine whether additional behaviors should be included.

Correlations between behaviors and scores on the Mi Niño tool will be conducted once data collection and coding is completed for the full sample (est. N=55). Ultimately, a validated Spanish-language self-assessment tool that can be used with low-literacy audiences will help programs target their messaging and materials toward behaviors most relevant to their audiences. Such practices can help to increase program effectiveness as well as participants’ experiences.

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