

COMO ME HAN ENSEÑADO : A LOOK AT THE EFFECTIVENESS
OF PARENTING INTERVENTIONS FOR USE WITH LATINO
FAMILIES*

by

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Latino families are an important demographic in the United States yet have been historically left out in family-based intervention literature. Family based interventions that practice cultural alignment (the practice of incorporating the cultural beliefs of participating families) may help Latino caregivers reach beneficial parenting outcomes. Researchers have increased the cultural alignment of parenting interventions in two primary ways: a) cultural adaptation and b) individualization. Cultural adaptation is the systematic modification of an intervention to become more compatible with a target population's cultural beliefs. These modifications can be either surface-level (basic changes to format, e.g. translation of language, culturally-appropriate images) or deep-level (e.g. material changes that alter or expand conceptual features, e.g. adding modules specific to a cultural view). Individualization is a means of achieving cultural alignment by tailoring the intervention to specific characteristics of the participant. Examples of methods used by highly individualized intervention are *strengths-based*, *child-centered*, and *video-feedback* approaches. Highly individualized interventions may achieve similar beneficial outcomes for Latino families to those with deep-level cultural adaptations, while requiring fewer resources for development. The Filming Interactions to Nurture

Development (FIND) intervention may be effective within the Latino community since it is: a) highly individualized, b) emphasizes child-centered approaches, and c) utilizes a surface-level cultural adaptation. The present study employed a novel video coding protocol to determine the effects of FIND on Latino caregivers' supportive parenting behaviors over time. It was found that FIND could change Latino parenting behaviors over time.

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Table of Contents

An Abstract of the Thesis of	2
Acknowledgements	4
Table of Contents	5
List of Figures	7
List of Tables	8
Introduction	9
Approaches to Cultural Alignment	10
Cultural Adaptation	11
Individualization	12
Characteristics of Highly Individualized Interventions	14
The FIND Intervention	16
This Study: Determining FIND’s Effects on the Latino Population	19
Specific Aim and Hypothesis	20
Methods	21
Participants, Recruitment, and Screening Methods	21
Procedures	22
Intervention	22
Research Visits	23
Measures	23
Free-play Tasks	23
FLO Coding	24
Analysis	26
Results	27
Demographic Characteristics of the Sample	27
Results for Specific Hypothesis: Changes in Following in Condition over Time in Latino Families (Repeated ANOVA)	27
Post Hoc Exploratory Analyses	28
Discussion	30

Cultural Considerations	32
Conclusion	32
Appendix A	34
Appendix B	35
Bibliography	38

List of Figures

<i>FLO CODING DECISION FLOWCHART</i>	24
<i>CHANGES IN FOLLOWING BY CONDITION OVER TIME IN LATINO CAREGIVERS</i>	28

List of Tables

DESCRIPTIVE STATISTICS

26

Introduction

The Latino population makes up approximately 19.1% of the United States population, making Latinos one of the largest minority ethnic groups in the U.S. today (U.S. Census Bureau, 2023). Despite this, Latino families have historically been marginalized with respect to access to family services. Immigrant Latina mothers tend to have less education than U.S.-native Latina mothers, which may disproportionately impact an immigrant mother's ability to find parenting support compared to her U.S. counterpart (Landale et al., 2014). A Latino family's minority status may affect their ability to attend family interventions as they try to establish themselves in their communities (Baumann et al., 2011). Latino caregivers may have to make sacrifices to attend interventions which may be further exacerbated by other challenges (e.g. work exploitation and immigrant status) (Parra-Cardona et al., 2021).

Latino families are also demographically under-represented in parenting research and there are significant inconsistencies in the interpretation and labeling of Latino parenting behaviors across different studies (Domenech Rodríguez et al., 2009; Henrich et al., 2010). Understanding Latino caregivers' parenting beliefs and practices is important because it may help interventions align with culturally-specific parenting goals (Díaz & McClelland, 2017). Examples of parenting goals specific to Latino culture include: *Familismo*, the emphasis on responsibility to the family and authority of the parents; *Respeto*, the importance of one's proper behavior and how it reflects on the family; *Educación*, the emphasis on moral upbringing to be a good person. These represent important values that should be considered in tailoring interventions to Latino families.

Approaches to Cultural Alignment

Cultural alignment is the practice of incorporating the cultural beliefs of participating groups into a program or intervention. As cultural diversity in the United States population grows, it becomes increasingly important to have effective treatments and interventions for specific cultural groups (Bernal, 2006). Song et al. (2023) determined that the way a caregiver raises their child differs depending on the cultural context in which the family lives. Specific cultural values and customs influence how caregivers mold their child's identity. One example of a cultural difference is the extent to which a family promotes individual values (e.g. teaching children to be independent) or communal values (e.g. emphasizing harmony within the family and community; Song et al., 2023). For example, Latino caregivers were found to emphasize skills that integrated their child as a part of the family and greater community (Achhpal et al., 2007).

Domenech Rodríguez et al. (2009) documented that historically successful methods and measures employed in family-based interventions did not always accurately characterize how Latino caregivers raise their children. They claimed that the typical parenting behavior measurements of warmth (i.e. caregiver interest in their child's activities) and demandingness (i.e. the amount of control a caregiver asserts over their child) were insufficient to describe Latino parenting behaviors and that a third measure, autonomy-granting (i.e. caregiver willingness to encourage child autonomy), was necessary. With this additional measure, it was found that Latino caregivers were best characterized by a new parenting style known as protective parenting, which was high in warmth, high in demandingness, and low in autonomy-granting (Domenech Rodríguez et al., 2009). As a result, the study advocated for parenting programs to employ cultural alignment that considers differences in Latino parenting styles to

avoid parents feeling like program elements clashed with their values. Researchers have increased the cultural alignment of parenting interventions in two primary ways: a) cultural adaptation and b) individualization.

Cultural Adaptation

Cultural adaptation is the systematic modification of an intervention protocol to consider language, culture, and context in a way compatible with participants' cultural beliefs (Bernal et al., 2009). Within that category are two approaches that differ in the scope of adaptation.

Surface-level cultural adaptations focus on basic changes to format in to make an intervention more accessible to participants (e.g. translation of language, images that reflect the likeness of participants). *Deep-level cultural adaptations* go beyond surface-level modifications to format and incorporate new conceptual content to better align with the cultural characteristics of the target population.

Achieving a deep-level cultural adaptation to fit the needs of the larger immigrant Latino community may be an effective way to generate beneficial outcomes for Latino families. Parra-Cardona et al. (2016) adapted the Parent Management Training Oregon model (PMTO) intervention to create the *Criando con Amor, Promoviendo Armonía y Superación* (CAPAS) intervention to help Latino caregivers reach their parenting goals. The team determined CAPAS was successful in its task to teach Latino caregivers a) positive involvement, b) skills encouragement, c) limit setting, d) monitoring and supervision, and e) family problem-solving. However, a later study found that this iteration of CAPAS did not generate as many beneficial outcomes as originally anticipated (Parra-Cardona, Bybee, et al., 2017). In response, the team employed deep-level cultural adaptation methods to create a revised program-- CAPAS

Enhanced. This new program incorporated caregiver feedback from the original CAPAS study and introduced 2 new intervention sessions that specifically focused on immigration challenges and adapting to a bicultural identity. CAPAS Enhanced generated more beneficial outcomes, including significant declines in problematic child behaviors (e.g. uncooperativeness) and internalizing child behaviors (i.e. behaviors directed at oneself to cope with stress) for families in the CAPAS Enhanced group (Parra-Cardona, López-Zerón, et al., 2017). The incorporation of Latino family feedback in the CAPAS Enhanced deep-level cultural adaptation (e.g., incorporating activities that explored family acculturation gaps, modifying role plays to normalize the role of culture in the family) may have been the key to its success: Parra-Cardona's earlier work found that Latino families wanted to participate in interventions that considered their feedback, parenting goals, and acknowledged their cultural identities (Parra-Cardona et al., 2009). However, achieving deep-level cultural adaptation is a resource-intensive process as it depends on several research phases to determine effectiveness before full administration with a target population (Bernal et al., 1995). As a result, this lengthy process can make interventions slow to implement and delay provision of the intervention to cultural groups that need support.

Individualization

Individualization is achieving cultural compatibility in an intervention by incorporating aspects of the participant and their pre-existing skills and beliefs into the intervention curriculum. Individualized family-based interventions may generate beneficial outcomes for participating families across cultures. Parent-Child Interaction Therapy (PCIT) is one such example as it incorporates the observed parenting behaviors of the participating caregiver into the intervention

curriculum and teaches them responsive parenting (i.e. being attentive and responsive to their child) through coaching. PCIT coaches tailor intervention sessions to consider a participating caregiver's pre-existing parenting behaviors. Leung et al. (2009) argued that PCIT utilizes individualized practices that naturally coincide with the parenting practices and goals of participating Chinese parents (Leung et al., 2009). The PCIT curriculum teaches caregivers skills and behaviors through natural dyadic interactions with their child, which are unique to every parent (Eyberg, 2005). Eyberg highlighted child-led and parent-led interactions as the most important types of dyadic interactions PCIT teaches caregivers (Eyberg, 2005). Leung et al. (2009) proposed that the individual nature of these interactions helped families—especially those at risk—benefit from the intervention by effectively supporting caregivers in learning new skills using pre-existing skills. It was found that PCIT successfully generated beneficial outcomes within the Chinese population.

Three features highly individualized intervention utilizes are being *strengths-based* (i.e. only giving caregivers positive feedback on what they do well), *child-centered* (i.e. being attentive and responsive to the child's interests) and using *video-feedback* (i.e. the use of video clips to teach participants intervention curriculum) approaches. Highly individualized interventions that also implement surface-level cultural adaptation may generate beneficial outcomes like those in interventions with deep-level cultural adaptations. One such example is the Video-feedback Intervention to Promote Positive Parenting— Sensitive Discipline (VIPP-SD). VIPP-SD employs a strength-based approach to help caregivers feel confident in their pre-existing parenting skills (Yagmur et al., 2014). The Yagmur team administered a VIPP-SD variation that implemented a surface-level cultural adaptation that a) translated the curriculum into Turkish, the dominant language spoken by the participating families, and b) changed

activities and materials to be more culturally appropriate (e.g. singing songs instead of playing pretend, chatting over tea instead of reading books). This approach was effective at generating beneficial outcomes in the ethnic minority families, demonstrating that a video-feedback approach may be used alongside a strengths-based approach to show a caregiver the positive effect of their parenting on their child's development (Fukkink, 2008). Additionally, the use of a strengths-based approach in an individualized intervention can help strengthen the bond between caregiver and child, which may lead to better caregiver outcomes because of parenting satisfaction and a better understanding of their child's behaviors (West et al., 2021).

Characteristics of Highly Individualized Interventions

Strengths-Based. *Strengths-based* interventions recognize that a caregiver's sense of parenting competence affects their parenting abilities and only give positive feedback on what participating caregivers do well. These interventions bolster a caregiver's parenting competence through positive feedback to enhance their naturally occurring parenting skills. A strengths-based approach may help increase responsive parenting and dyadic relationships as caregivers increasingly recognize their role in their child's development (Fisher et al., 2016). Caregivers who participated in strengths-based interventions had higher levels of self-efficacy than their peers who didn't (Waters & Sun, 2016). These increases in parental confidence may be attributed to increases in caregiver recognition of positive qualities in their children (Waters & Sun, 2016). Strengths-based interventions may make caregivers feel like they are successfully cultivating their child's well-being and may also promote behaviors that create a loop where a caregiver uses confidence-boosting behaviors to continue receiving positive feedback from their child (Fisher et

al., 2016). Both these observations ultimately lead to the same outcome since young children engage the most with confident caregivers (Arco, 1981).

Video-Feedback. *Video-feedback* is the utilization of video recordings in an intervention to teach participants skills and behaviors. The use of video-feedback in interventions has been shown to generate significant positive outcomes for participating families (Fukkink, 2008) and may be particularly effective within at-risk populations (Bakermans-Kranenburg et al., 2003). An example of an intervention that implements individualized video-feedback in a brief, targeted manner is the previously described VIPP-SD program which has been proven effective in promoting healthy dyadic relationships and positive parenting practices within participating families (Van Zeijl et al., 2006). Van Zeijl et al. highlight that individualized video-feedback is a key component for the intervention's success because feedback clips mirror the actual dyadic interactions that a particular family uses.

Child-Centered. *Child-centered interactions* are responsive parenting behaviors where a caregiver is attentive to their child's interests. Interventions that promote child-centered interactions (referred to as "following the child's lead" or "following behaviors" in this study) emphasize the importance of caregiver engagement with their child. Problematic behaviors may arise more frequently in children who either have no caregiver or do not feel like their caregiver is giving them sufficient amounts of attention (Fisher, 2016). Children supported by their caregivers who tend to follow their child's lead may navigate complex social dynamics more successfully (Pettit et al., 1997). Children are most cooperative with caregiver requests when caregivers regularly follow their child's lead (Davidov et al., 2022). Following may make cooperative behaviors more salient to a caregiver's child, thus encouraging the child to reciprocate their caregiver's goodwill. Additionally, following may foster child development as

children explore their focus with guidance from their caregiver (Fisher et al., 2016). In short, caregivers who actively follow their child may generate several developmentally supportive outcomes for their child.

The FIND Intervention

Filming Interactions to Nurture Development (FIND) is a 10-week, home-based, video-feedback parenting intervention designed for the general population (Schindler et al., 2021). FIND is a highly individualized intervention that shows participating caregivers how their parenting behaviors demonstrate responsive caregiving and how those behaviors positively affect their child's development. FIND focuses on five, precise behaviors known as the FIND five elements and coaches participating caregivers on effectively utilizing these elements in their parenting behaviors (Fisher et al., 2016). In short, FIND promotes naturally occurring responsive parenting in a particular caregiver's pre-existing skills to generate beneficial parenting outcomes on an individual basis. The present study's version of FIND does not employ a deep-level cultural adaptation and instead examines whether FIND can be effective within a Latino population because it is a) strengths-based, b) child-centered, and c) utilizes video feedback, along with incorporating a surface-level cultural adaptation.

The highly individualized nature of FIND may facilitate learning in Latino caregivers. For example, a home-visit coach guides a caregiver through several video clips where the caregiver demonstrated one or more of the FIND five elements in their parenting behaviors. This aspect of the intervention specifically tailors the curriculum to a particular family and works with the pre-existing skill set that the caregiver brings. The feedback given to a specific caregiver is unique to cultivate the FIND five elements as they appear in that caregiver's parenting behaviors.

The emphasis on child-centered parenting in the form of following the child's lead in FIND may also generate beneficial outcomes for Latino caregivers. The FIND five elements curriculum highlights the importance of following behaviors through *Serve & Return* interactions, which are the natural back-and-forth exchanges between caregiver and child. A child *Serves* to their caregiver whenever they focus on something or start an activity. The caregiver *Returns* the child's serve with an appropriate parenting behavior related to one or more of the FIND five elements. Coaches, with help from the highly individualized nature of FIND, teach participating caregivers to recognize instances of Serves & Returns in their parenting. Moments where caregivers use Serve & Return in their parenting behaviors ultimately exhibit a) attentional control, b) self-monitoring, or c) inhibitory control (Fisher et al., 2016). These moments can be measured, which can then be used to assess the effect of the intervention on parenting behaviors. A coding protocol known as the Follow-Lead-Other (FLO) protocol was used in the present study to determine changes in parenting behaviors such as increases in following (discussed in depth in the Methods section). By regularly practicing following behaviors, participating Latino caregivers may experience an increase in parenting competence and general mental health while reducing parenting stress (Fisher et al., 2016).

Supplementing FIND with a surface-level cultural adaptation (i.e. language translation) may effectively generate beneficial outcomes for Latino families. A translation of FIND was made to better serve a Latino population who may feel more comfortable speaking Spanish. For example, intervention materials were translated into Spanish, and bilingual, bicultural coaches administered home visits for families who opted to take the intervention in Spanish. However, no further culturally accommodating changes were made to the present study's FIND intervention. Previous FIND studies focusing on Latino families have implemented deeper cultural

adaptations, such as Schindler et al. (2021) FIND with Mexican-American Fathers (FIND-FM). FIND-FM translated intervention materials and incorporated culturally sensitive materials such as the positive, traditional Mexican values of *familismo*, *caballerismo* (the egalitarian belief of a man's positive relationships with their entire family, e.g. gentlemanliness), and *educación* into its curriculum. However, this deeper approach may not be necessary for FIND to generate beneficial outcomes effectively for participating Latino families. Studies on other highly individualized interventions suggest that a surface-level cultural adaptation is sufficient to generate beneficial outcomes for cultural minority populations. As mentioned previously, the VIPP-SD variation used by Yagmur et al. (2014) generated positive parenting outcomes for its participating Turkish families through a surface-level cultural adaptation which suggests that the present study could benefit the Latino community similarly.

Evidence and understanding of FIND's efficacy and effects is growing. Fisher (2016) outlines the foundation of the FIND intervention, which stems from a basis of social learning theory that implements a translational neuroscience approach. To simplify, FIND is based on the belief that new behaviors are acquired through observation and imitation and tries to apply this belief in scientific research to develop clinical applications and new types of therapy. FIND's theory of change suggests that the intervention's design may promote naturally occurring, developmentally supportive interactions between children and their caregivers by targeting two important aspects of parent-child interactions: serve-and-return and following the child's lead.

There is substantial evidence that FIND generates positive outcomes for caregivers and children (Imhof et al., 2022; Liu et al., 2021; Schindler et al., 2021). The FIND intervention significantly improves a caregiver's confidence and parenting competence (Liu et al., 2021).

Additionally, FIND promotes expressive and receptive language development in young, at-risk children (Imhof et al., 2022). To date, there has not been any conducted research examining intervention impact on observations of caregiver-child interactions directly. There is also limited evidence on the FIND intervention's effectiveness with Latino caregivers. Although studies exist (i.e. Schindler et al., 2017; Schindler et al., 2021), they were small.

This Study: Determining FIND's Effects on the Latino Population

As of the time of conducting this study, FIND has evidence to suggest its effectiveness in generating beneficial outcomes within the Latino population (Schindler et al., 2021). However, these prior studies have some limitations (e.g. small sample size, use of waitlist-control group) and do not explicitly measure caregiver-child interactions.

The present study aims to fill this gap in our knowledge by interpreting FIND's effects on a specific ethnic minority population (Latino families in the United States) via changes in caregiver following behaviors. Collectively, previous studies suggest that delivering a highly individualized intervention— such as FIND— to the Latino cultural group may effectively generate beneficial outcomes for participating families. If successful, the present study would show that the parenting behaviors of Latino caregivers are malleable. Additionally, these results may suggest administering highly individualized interventions (like FIND) with appropriate surface-level cultural adaptations to ethnic populations effectively generates beneficial outcomes for participating families.

Specific Aim and Hypothesis

Specific Aim: Determine the effects of the Filming Interactions to Nurture Development (FIND) intervention on Latino caregivers' supportive parenting behaviors over time through changes in caregiver Following.

Hypothesis: Latino caregivers participating in FIND will experience a significant increase in their following behaviors from pre-intervention to post-intervention.

Methods

Participants, Recruitment, and Screening Methods

The study recruited families from the Denver, CO metropolitan area that a) had children between the ages of 4 months to 36 months, b) were eligible to receive Early Head Start (EHS) services, and c) were fluent in either English or Spanish. A total of 202 families met these first criteria. These eligible families completed a screening visit to enroll in the study, which included cortisol assays to determine cortisol dysregulation within caregivers and their children. 138 families were enrolled in the FIND intervention based on a) stress criteria (i.e. evidence of cortisol dysregulation in family members) and b) exclusion criteria (i.e. no evident developmental delays within children). The 138 enrolled families were randomly assigned into two groups: intervention (FIND + EHS services, n=89) or active control (EHS services only, n=49). Participating families completed pre- and post-intervention research visits at home, which included demographic questionnaires and video recordings of caregiver-child interaction tasks (dyadic play). Out of the 138 families, 92 completed all pre- and post-intervention visits. Participants in the present study had to self-identify as Latino, where 74 out of 92 families met these criteria. The final sample used in the present study consisted of 59 Latino families with pre- and post-intervention films that were codable. Appendix A shows a complete flow chart of participants in this study, including those who completed all relevant measures and were included in final analyses (n=59).

Procedures

Intervention

The FIND intervention teaches the FIND Five Elements to caregivers across 10 weekly video recording and coaching sessions. The FIND five elements curriculum highlights the importance of following behaviors through *Serve & Return* interactions. Serve & return interactions are the natural back-and-forth exchanges between caregiver and child. The FIND Five Elements are: 1) *Sharing the Focus*: caregivers notice the focus of their child's interest and reciprocate their child's interest, 2) *Supporting and Encouragement*: caregivers help, comfort, or praise their child in response to their interests, 3) *Naming*: caregivers associate a word to an object, action, or feeling that their child may encounter while exploring their interest, 4) *Back and Forth*: caregivers engage in an extended serve and return process where the caregiver notices a child's serve, returns the serve, and then waits for their child to initiate further, 5) *Endings and Beginnings*: caregivers notice when their child changes their focus from one activity to the next.

Enrolled families met with a coach each week who provided individualized instruction on the Five FIND Elements over the 10 weeks of the intervention. Intervention visits took place in participating families' homes. A visiting coach gave the caregiver individualized, strengths-based feedback to caregivers, which was supplemented with short, edited video clips of moments where the caregiver interacted positively with their child and used at least one of the FIND Five Elements. Coaches gave highly individualized, strengths-based feedback specific to each caregiver.

Coaches were responsible for recording new videos of the caregivers interacting with their child for strengths-based video-feedback for the following week. These recordings were approximately 10 minutes long, where caregivers would interact with their child during an

activity (e.g. play or mealtime). In short, the intervention coached parents based on their interactions with their children and received highly individualized feedback to foster supportive parenting behaviors in their existing skills.

Research Visits

Participating families completed three research study visits consisting of a screening, pre-intervention, and post-intervention visit in their homes. Caregivers completed several study questionnaires that assessed household characteristics, family demographics, exposure to adversity, and their child's developmental history during the screening visit. Caregivers and children also provided salivary cortisol samples during screening to determine their eligibility for study enrollment.

Enrolled families completed pre- and post-intervention research visits in their homes. First, caregivers completed several questionnaires about their life experiences and their child's behavior, development, and developmental history during both visits. Second, both caregiver and child were asked to complete individual behavior assessments. Last, caregivers were filmed in dyadic interactions with their child, completing several interactive tasks together (e.g., book-reading, free-play, and a series of stressor tasks). Several measures were collected during research visits, but only dyadic play and demographic information were used in this study.

Measures

Free-play Tasks

Caregivers and children were video-recorded as they engaged in a short free-play task where caregivers and their children were filmed playing with researcher-provided toys.

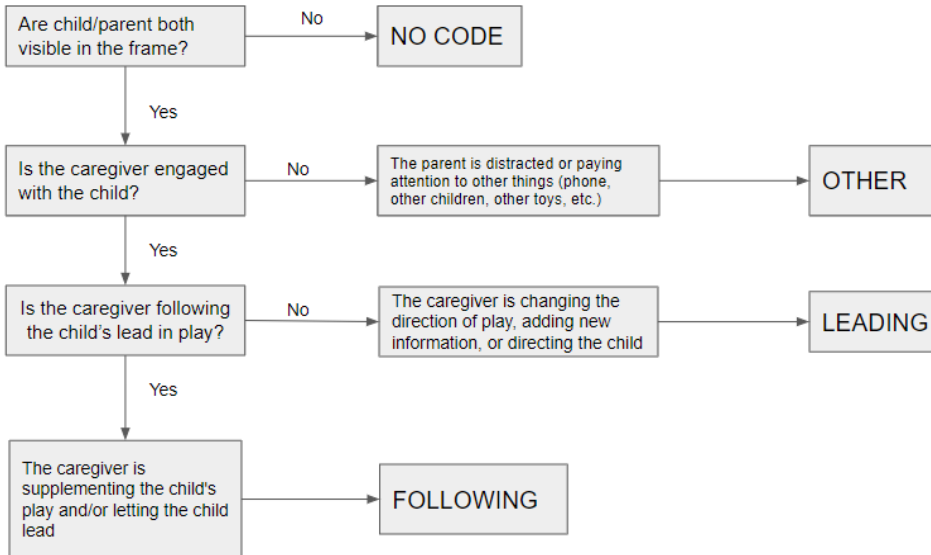
Caregivers were told to play with their children as they normally would at home for approximately seven minutes. Children could choose from a pre-determined set of toys, including a barn house with animals, a puzzle for young children, and an airplane with toy figurines.

FLO Coding

FLO coding was used to determine changes in caregiver behaviors throughout the intervention. This coding protocol quantifies moments where caregivers are either a) *Following* their child's lead when they're sharing the focus, b) *Leading* their child by taking command or changing the direction of the activity, or c) disengaging from their child or being distracted by something *Other* than the designated activity. A fourth *No Code* quantifier was also used to designate video segments that included moments when a caregiver or child's hands or face were not visible, any time a caregiver or child was fully off-screen, or a video's quality was poor. Figure 1 illustrates the precedence of codes and what coders consider at a high level when reviewing videos. Refer to Appendix B for a glossary with a detailed explanation of each FLO code.

Figure 1.

FLO Coding Decision Flowchart



Coders were trained on a set of 5 gold-standard training videos. Gold standards aimed to teach new coders a) how to quantify a moment using FLO, b) how to use FLO to quantify nuanced and challenging instances of parenting behavior, and c) evaluate inter-coder reliability. New observational coders trained until they reached a threshold of at least 80% reliability across 3 gold standard videos before they could code independently. Video clips were coded using Noldus Observer XT (<https://www.noldus.com/observer-xt-animal>), a software program specifically designed for research-based observational coding. Inter-rater reliability was calculated by comparing both the duration and timing of changes in FLO codes. 20% of all trimmed videos were randomly selected to be double-coded to ensure that inter-rater reliability remained at or above 80% Agreement. Inter-rater reliability was acceptable (Cohen's $\kappa=0.84$;

Spearman's $\rho=0.97$; inter-rater agreement = 90.08%). Coders also met weekly to consult on double-coded videos, sharing video-clips and discussing their codes.

Analysis

Analyses were conducted using IBM SPSS Statistics v. 28.0.0.0. A repeated measures ANOVA test was performed using a subset of families who identified as Latino. This test was conducted to examine the effect of the condition (FIND versus control group) in Latino caregivers from pre- to post-intervention. Statistical significance was determined using a probability (p-value) of 0.05 or less.

The specific aim examines whether FIND generated a significant effect on the supportive parenting behaviors of Latino caregivers through a single measurement of dyadic interactions (i.e. FLO coding). A repeated measures ANOVA test was conducted with Latino caregivers across the FIND and control groups to compare the change in caregiver-leading behaviors from pre- to post-intervention.

Results

Demographic Characteristics of the Sample

74 Latino families met inclusion criteria to be included in this study. Most Latino caregivers reported being born in Mexico (n=58, 78.4%). Most families preferred to speak only Spanish at home (n=56, 75.7%) and when given the option to take the intervention in English or Spanish, 63 (85.1%) chose Spanish. There were more boys (56.8%) than girls (43.2%). The average child age was 25.00 months (SD=9.79). The average caregiver age was 32.42 years (SD=5.41).

Table 1. *Descriptive statistics.*

Family demographic characteristics.	<i>n</i>	<i>%/M (SD)</i>
Mother's age (years)	74	32.4 (5.4)
Child's age (months)	74	25.0 (9.8)
Child's sex (% male)	42	57%
Language of administration (% Spanish)	63	85%
Mother's Immigrant Identity (% born outside U.S.)	61	82%
Mothers born in Mexico	58	78%
Spanish as primary language (% Spanish)	56	76%

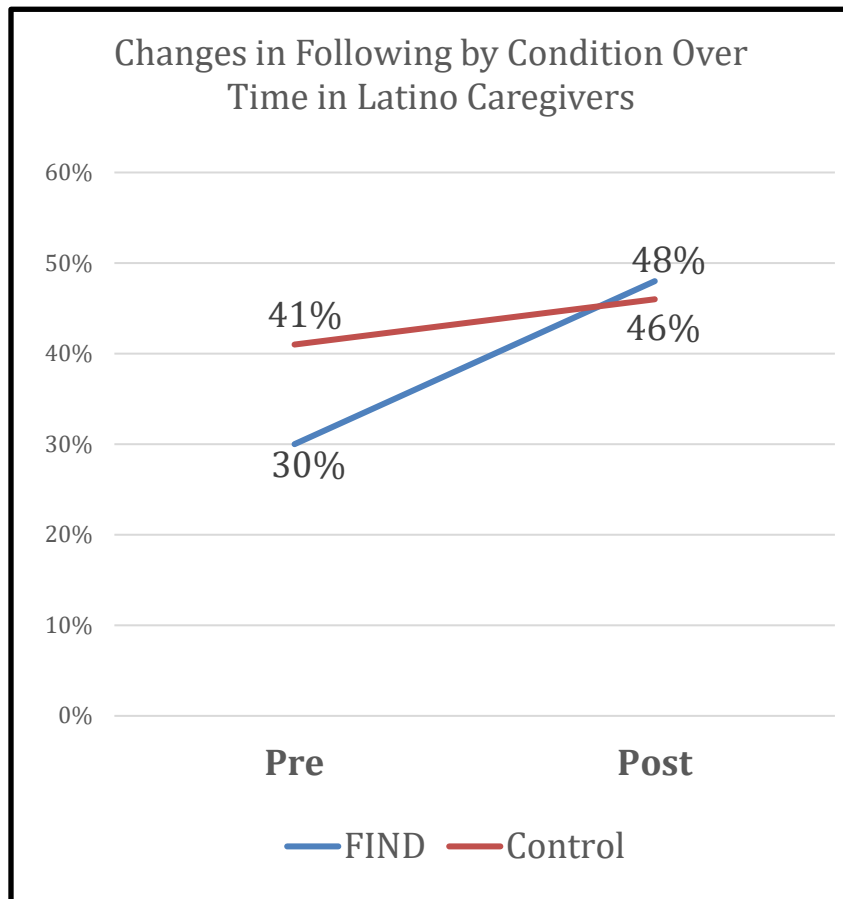
Results for Specific Hypothesis: Changes in Following in Condition over Time in Latino Families (Repeated ANOVA)

There was a statistically significant difference in pre- versus post-Following in Latino caregivers participating in the FIND group compared to the control group, ($F[1,58]=5.57$, $p=0.02$). Latino caregivers in the FIND group showed greater increases in Following than the

control group after receiving the intervention. Figure 2 shows results illustrating the changes in Following by caregivers over time for each group.

Figure 2.

Changes in Following by Condition Over Time in Latino Caregivers



Post Hoc Exploratory Analyses

After running tests to answer the present study’s specific hypothesis, an exploratory independent samples t-test was conducted to compare Following rates at baseline (i.e. pre-

intervention). This post hoc test was conducted to explore potential differences in Following between Latino and non-Latino caregivers in the FIND condition. The Latino group consisted of the present study's sample (n=64). The non-Latino group consisted of the families that completed all pre- and post-intervention visits but did not identify as Latino (n=17). The percentage of Following behaviors before the intervention was lower for Latino caregivers (35.4%) than for non-Latino caregivers (52.8%) and the difference was statistically significant $t(80)=3.19, p \geq 0.01$.

Discussion

The present study provides the first evidence that the FIND intervention increases Latino caregiver following behaviors. Prior FIND studies have focused on caregiver and child outcomes, showing how FIND's strengths-based approach mitigates parenting stress and lowers child behavior problems in Latino families (Liu et al., 2021, Schindler et al., 2021). We hypothesized that the FIND intervention would increase a Latino caregiver's supportive parenting behaviors measured using the FLO Coding Tool. Analysis of results supports this study's specific hypothesis.

This study shows that FIND can change Latino parenting behaviors over time. The results show a significant increase in the percentage of time that Latino caregivers follow their child's lead during play post-intervention. This may be because the FIND Five Elements teach caregivers to employ more following (Fisher et al., 2016). Literature suggests following may be an important component of caregiver-child bonds since it promotes responsive parenting (Pettit et al., 1997; Fisher, 2016; Davidov et al., 2022). Caregivers who use responsive behaviors may interact with their children more actively and attentively, ultimately increasing caregiver competence and decreasing problematic child behaviors (Fisher et al., 2016). In summary, these results suggest that Latino following behaviors can change over the intervention period and future research should examine the mechanisms of these relationships more closely.

The strengths-building aspect of FIND may also contribute to increases in Latino caregiver following, suggesting that FIND is compatible with the Latino cultural practices around parenting. Domenech Rodríguez et al. (2009) aptly characterized Latino caregivers as "protective parents," defined by their high warmth and directiveness towards their children (i.e. low use of following). FIND's strengths-based approach may have generated beneficial

outcomes by bolstering Latino caregiver confidence. Schindler et al. (2021) may further support this point by highlighting FIND's encouragement focus as a key mechanism for the intervention's success within the Latino population. The work of Schindler et al. provided evidence that FIND could effectively increase responsive parenting (i.e. following) in Latino caregivers.

A limitation of the present study was that caregiver behaviors were only assessed during pre- and post-intervention sessions. The long-term intervention effects on Latino caregiver parenting behaviors cannot be determined with this study without follow-up assessment. The present sample size was also small, which limits the power to interpret these findings. Future studies that wish to determine more general trends within the Latino population will need to recruit more families. Another limitation was that the study's demographic information may not fully capture the cultural factors influencing the resulting outcomes. The study selected participants only on caregivers self-identifying as Latino and not on other potential overlapping demographic characteristics, such as Hispanic identity, socioeconomic status, or levels of caregiver acculturation. In this sense, the present study may not have adequately accounted for the influence of historical marginalization the Latino community faces as described in the literature (Domenech Rodríguez et al. 2009; Parra-Cardona et al., 2009; Henrich et al., 2010; Baumann et al., 2011; Parra-Cardona et al., 2021). Future studies may consider including more demographic characteristics in the participant enrollment process to learn more about Latino parenting behaviors in the United States. Last, a comparison group should be considered for research to understand the difference between Latino and non-Latino caregivers. A further

shortcoming of the present study was that the non-Latino sample size was small, making comparisons between Latino and non-Latino caregivers difficult.

Cultural Considerations

The present study uses prior findings to open a new line of inquiry on FIND's effects in various cultural contexts. Future approaches to research may include applying FIND to different cultural groups or studying the effectiveness of the intervention with a larger sample size and measures for nuances within the Latino community, such as dialect, Hispanic identity, and stress.

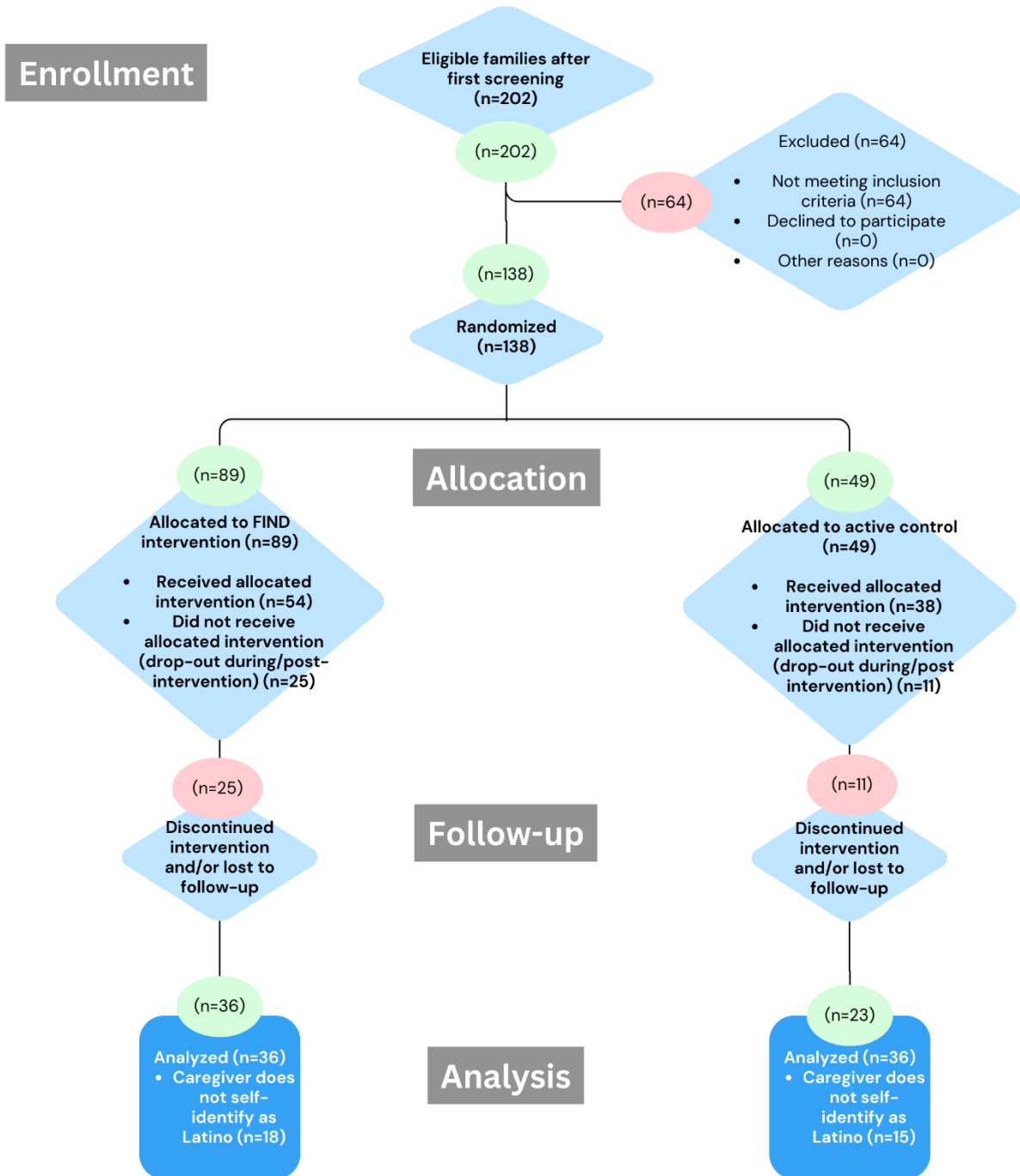
The ethics of changing Latino parenting behaviors should also be considered while exploring this new line of inquiry. The present study's post hoc test showed that Latino caregivers started with significantly lower Following percentages than their non-Latino counterparts. This difference may suggest that Latino parenting culture considers high amounts of directiveness as an important characteristic of a responsive caregiver. Another ethical consideration should be whether the "protective parenting" identity of most Latino caregivers should be preserved or not. It's important to keep these ethical concerns in mind while exploring this line of inquiry as changing the traditional behaviors of Latino caregivers may impose undesired values upon participating families.

Conclusion

This study suggests that a highly individualized intervention like FIND can be effective in its ability to change Latino caregiver behaviors. More specifically, individualized interventions can effectively increase Latino following behaviors to change the extent to which caregivers follow their child's lead. The positive results of the present study suggest that other

highly individualized programs with appropriate surface-level cultural adaptations may also generate beneficial outcomes for target ethnic populations. The FIND intervention shows promise in its ability to help the Latino community reach beneficial parenting outcomes. Latino families who participated in FIND—a highly individualized intervention with a surface-level cultural adaptation—experienced significant increases in their supportive parenting practices (i.e. Following).

Appendix A



Appendix B

FLO Coding Glossary

Overall, this coding scheme aims to quantify *caregiver behaviors* within the context of dyadic freeplay interactions. During play, we consider the child’s “spotlight” of attention. The determination of “following” and “leading” refers to whether the caregiver is in control of the child’s spotlight.

This glossary is designed to complement the FLO Coding flowchart. Coders should follow coding decisions outlined by the flowchart. Definitions of each behavior are outlined in more detail below.

Following (F):

- Caregiver is attentively engaged with the child and paying attention to what the child is doing (i.e., the child is in control of the “spotlight”)
 - Caregiver is sharing the child’s focus
 - Caregiver is not physically controlling the play (e.g., they may be sitting back to let the child lead)
- Caregiver is supplementing the child’s activity without changing the direction of play
 - Examples:
 - Caregiver naming something the child is doing/playing with
 - Responding to a child’s serve without changing the direction of play or changing the focus of a conversation

- Caregiver is curious about something the child is doing (e.g., “wondering”)

Leading (L):

- Caregiver is actively engaged in directing the trajectory of the child’s play (i.e., the caregiver is in control of the “spotlight”)
 - Caregiver may be physically controlling/manipulating the toy or the play
 - Caregiver may be “teaching” or guiding the child’s actions
 - Caregiver may be directing the child through commands
 - E.g., limit setting (“No”) would fall into this category
 - E.g., a child responding directly to a question or following an instruction from the caregiver is still considered leading
 - Caregiver may change the direction of play from one thing to another
 - Caregiver may add things to the play that the child is currently not focused on
 - Caregiver may be diverting the child’s attention away from their current interest

Other (O):

- Caregiver is disengaged or not interacting with child; caregiver is not sharing the child’s focus
 - Examples:
 - Caregiver using their phone or distracted by something else
 - Caregiver and child are interacting with different toys (parallel play)

Not Codable (N)

- If any part of the interaction is not visible/audible and the quality of the film makes it too difficult to make a coding decision, the coder should choose “No Code”
 - Both caregiver and child need to be in the frame
 - If either child or caregiver is off-screen it should be coded “No Code”
 - You need to be able to determine where the caregiver’s attention is focused (i.e., sharing the child’s focus or not) in order for a video to be considered “codeable”
 - Note: it is usually necessary for the caregiver’s face/eyes to be visible in order to code, but there are some exceptions (e.g., where you can see the back of the caregiver’s head but can tell what they are doing via audio or other visual cues)
 - Interaction between caregiver and child needs to be audible
- Generally speaking, interactions that have more than two participants (i.e. multiple children or multiple caregivers) cannot be coded using the FLO Coding Protocol
 - While coding: If there is a third person present who is interacting in such a way that the caregiver’s attention is shifted/changed in some way (for more than 2 seconds), then the coder should select “No Code”

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