

Preventing Children's Aggression in Immigrant Latino Families: A Mixed Methods Evaluation of the Families and Schools Together Program

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Abstract The effectiveness of the evidence based program, Families and Schools Together (FAST), was examined in two inter-related studies with immigrant Latino (Mexican) families in the U.S. In Study 1, we reported findings from pre-test, 3-month post-test, and 12-month follow-up surveys of parents and children participating in the FAST program. Families were selected from communities that were randomly assigned to either intervention or control groups. A total of 282 parents (263 mothers and 19 fathers) participated in either the intervention (140 parents) or control (142 parents) condition over the course of 3 years. Each of the parents had a participating focal child; thus, 282 children (144 females and 138 males; average age = 9.5 years) participated in the study. A primary focus of the research was to determine whether participation in FAST led to reductions in children's aggression. Using linear growth models, no differences were noted on aggression between intervention and control groups, although intervention children did show significant improvements in social problem-solving skills and perceptions of collective efficacy. In Study 2, we conducted two focus groups with ten FAST participants to explore whether other unmeasured outcomes were noted and to understand better the mechanisms and impact of FAST. All of the parents in the focus groups reported that FAST had helped them better relate to and communicate with their children, and that the greatest effect was on the behavior of

their older children. Results are discussed in terms of cultural fit of the FAST program for immigrant Latino families and future directions.

Keywords Childhood aggression · Prevention · Families · Immigrant Latino

Aggression is a multiply-determined behavior, influenced by a range of biological, psychosocial, and contextual factors (Guerra and Leidy 2008). The causal chain that connects these factors and leads to more serious aggression and violence during adolescence begins early in life. Consistent with this developmental perspective, there is a large body of evidence supporting the importance of intervention from infancy through the early elementary school years, before aggressive behavior becomes more habitual (Moffitt 2003). Further, because processes within families are both central and enduring in their impact on children's learning of aggression, family-based prevention programs have received considerable attention and support (Connell et al. 2007; Hinshaw 2002; Lundahl et al. 2006). Indeed, interventions designed to enhance family functioning and parenting skills are among the most effective strategies for preventing childhood aggression (Webster-Stratton et al. 2001) and youth violence (Elliott and Mihalic 2004).

Although empirical studies of family-based aggression prevention programs have been conducted with increasingly diverse cultural and ethnic groups in recent years, to date, there is a relative dearth of literature examining the effectiveness of these programs with immigrant Latino families. In a recent review of such programs, we identified only a handful of programs that had been specifically adapted or designed for Latino families, and even fewer

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with a focus on immigrant families (Leidy et al., in press). Yet the unique circumstances faced by immigrant families may present obstacles and challenges not regularly considered in prevention and intervention programs (Hernandez 2004; Tafoya 2004). On the one hand, parenting programs simply may not address these circumstances; for instance, parenting difficulties related to differences in rates of acculturation between parents and children typically are not included in parent training curricula. On the other hand, extreme distress caused by economic difficulties, overcrowded housing, separation from extended family, language difficulties, community violence, and concerns over immigration status may diminish the effectiveness of any intervention as cumulative family risk increases (e.g., Liaw and Brooks-Gunn 1994). This is not to say that agencies have not rallied to assist immigrant families. The continued growth of immigrant populations has led to a number of community and governmental efforts in the U.S. Increases in youth violence among ethnic minority and immigrant youth also have served to focus this response on specific behavior problems (Guerra and Smith 2005). What is missing at this juncture is an evidence-base to support the effectiveness of these programs.

However, the value of scientific evaluations also hinges on the feasibility of translating these programs, if effective, into services within target communities. Research and practice with Latino populations conducted over the last decade or so suggests that community inclusion, acceptance, and ownership of any intervention are important components of future utilization and sustainability (National Coalition of Hispanic Health and Human Services Organizations 1995). This process must begin as a partnership with community-based agencies and clients, consistent with the framework of community-participatory research, rather than a top-down approach where experts propose remedies for problems and then test them in the community.

The present study describes a partnership between a university research team and a community-based agency to select, implement, and evaluate a family and parenting intervention program designed to prevent aggression among elementary-school aged children of immigrant Latino parents. This partnership built on a 10-year relationship between the Southern California Academic Center of Excellence on Youth Violence Prevention (ACE-UCR) at the University of California at Riverside, and Latino Health Access (LHA), a non-profit organization serving low-income immigrant communities in Southern California. LHA is a promotor based community organization focused on empowering Latino families and children living in low-income communities in Santa Ana to improve their communities and their health. Much of its work is built on the

concepts of reflective action developed by the Brazilian educator, Paulo Freire. Forty-two *promotores* recruited from the community work with residents in the area to address a range of social and public health concerns. *Promotores* provide training in research methods, social advocacy and a variety of other topics to increase the capacity of community residents to advocate on their own behalf for improved housing, community safety, and access to resources and opportunities that contribute to health and well-being. *Promotores* also run an after school program for children in the community, the Children's Initiative, where children from the community can receive help with homework, learn social skills and have a safe place to play after school.

Families and Schools Together (FAST) is a multifamily group intervention designed for children and their families. Families meet weekly for 10 weeks and participate in 2–3 h sessions that involve a series of carefully prescribed family, parent, and child activities designed to strengthen the parents' authority in the family, improve parent–child interaction and communication, provide social support for the parents, and build relationships among families from the same school or community. The intervention is designed to engage parents with their children by reinforcing their role as leaders of their family, increasing social support available to them both from within their family and from the community, and providing new ways for them to communicate and interact with their children that interrupt coercive and negative patterns of interaction. In turn, this is expected to result in improvements in child behavior and social competence, which leads to reduced involvement in high-risk behaviors such as aggression and violence. Consistent with this, the intervention emphasizes empowerment of the parents. Team members coach parents in new ways to communicate and interact with their children, rather than intervening directly with the children themselves. FAST emphasizes the use of experience as a mechanism for learning and change and provides almost no didactic instruction (<http://www.familiesandschools.org/>).

FAST has been designated a model program by The Substance Abuse and Mental Health Agency (SAMHSA) based on numerous previous evaluations of the intervention. Findings for intervention children (compared to controls) suggest that FAST results in significant improvement in social skills, decreases in aggressive behavior and internalizing symptoms (Layzer et al. 2001); improvements in academic competence and decreases in internalizing behaviors, anxiety, attention problems, and externalizing behaviors and gains in academic competence and social skills (Kratochwill et al. 2004, Philliber Research Associates 2000).

FAST traditionally has relied on a combined professional and parent workforce and has been implemented in

school settings. However, because of the unique challenges experienced by immigrant families (e.g., limited English proficiency, mistrust of schools and public agencies, etc.), we decided to locate the intervention in the community at LHA and to utilize lay health workers from the community as the primary team members along with a mental health professional who served as the team leader. While the organization has a significant amount of experience developing and evaluation new programs, it typically does not adopt programs developed outside of the organization. LHA serves a predominately immigrant Latino community. Many evidence-based programs (EBPs) do not address the unique needs of the families in their community. Touched on earlier in this article, many of the families are of mixed legal status, and live in fear of deportation and the frequent ICE raids, many experienced significant emotional and physical trauma in the processes of immigrating, as well as extended separation from the father. There is extreme overcrowding with as many as 2 or 3 families occupying a 2 bedroom apartment. Many of the adults have limited English and literacy skills. Most programs that have been designated EBPs have not been designed to address the unique needs of these families. For LHA this was one of the organization's first experiences with implementing an EBP developed outside the organization.

The initial stages of the university-community collaboration involved a number of weeks spent in the field getting to know LHA's approach to intervention, its organizational culture, and the needs of the community it is focused on serving. Initially researchers focused on being relevant and useful to the organization, assisting staff with an evaluation they were having difficulties with, and helping them identify information that they needed for programming purposes. Researchers also used their knowledge of qualitative research methods to write a description of the organization and its programs that LHA could use in applications for funding. Over time, researchers began to frame conversations about programs by reflecting on the theories of change underlying their interventions, and placing them in context with current research about what works and doesn't work for improving outcomes. The organization's director found these discussions very useful and they helped stimulate ideas about new potential programming. The organization's interest both in contributing to theory building in the areas of intervention science, and in exploring the role of EBP in their organization grew. The researchers and organization staff collaborated on several smaller projects, including a small scale pilot of FAST funded by another federal agency, before the current opportunity arose.

FAST was initially selected by the organization as an EBP to implement based on its perceived "cultural fit" and the degree to which its program components addressed

specific needs within the community. The selection of the program occurred collaboratively between the researchers (whose role was to collect information on parents' concerns and needs, and identify EBPs that addressed these issues), the organization, and the community. Following several community meetings to discuss needs and review various EBPs, the agency and community selected FAST.

Implementing the program with fidelity would normally have been challenging, but FAST has a particularly strong replication model that includes comprehensive training, regular site visits and fidelity checks, and specific "certification" criteria that must be met for a program to be considered a FAST program. Because FAST was so strong in these areas, they were able to guide LHA and the research team in these areas, and create the force needed to ensure the program was implemented as designed. This said, certain modifications were made to the program model to accommodate some of the unique cultural aspects of the target community. All of these changes were led by LHA who then shared them with the research team. Rarely did the researchers suggest or lead any modification effort. The changes made primarily involved logistics. More than 90 people including 40 children showed up for the first session which required rethinking of resource and time management. Designed as a multifamily group, supporting between 10 and 12 families at a time, FAST is most feasible when family sizes are the US average size of 4. However, the families in this community were considerably larger, often involving several generations. Families arrived with 8–10 members—as well as nearby neighbors and friends. The program calls for serving a 'family' meal, and supervised play time for the children. Food quantities and logistics, and supervision for the children had to be rethought. The only significant change made to the intervention model itself was the incorporation of more didactic sessions during the small group discussion. FAST is designed to be experiential, only 1 session includes didactic instruction. While the merits of this are clear, for LHA and its seems also the community, this was a source of considerable frustration. Many parents who had immigrated here have very little knowledge of basic child development, and of positive discipline techniques. All of the parents requested "instruction" to help their child. Failure to provide this was seen by both the agency and the parents as being unresponsive to the parents' needs. As a result, more didactic material was added to the program to supplement what was scheduled in the FAST protocol. Failing to do this would likely have decreased not only the agency's buy-into the program, but the parents' perceptions of its usefulness and value. Beyond this, few modifications were made to the program model.

From an administrative perspective, the comprehensive training and certification process required by FAST fit well

with the agency's own culture. LHA invests heavily in training for its promotores and staff, closing 1 day a week to provide training and staff support, and providing periodic intensive training for its promotores and staff on areas relevant to the core work of the agency. Similarly, the agency also emphasizes professionalism in both its staff and workforce. Good documentation of activities and general record keeping are requirements for all promotores and staff, as well as adherence to agency protocols and policies. The FAST training and certification activities were similar to processes already in place in the agency and so were easily and seamlessly integrated into the agency operations with few if any modifications.

The Current Study

We report two inter-related studies to examine the impact of the FAST program. In Study 1, we report findings from pre-test, post-test, and follow-up surveys of parents and children participating in the FAST program. Children's aggressive behavior (measured by parent and child reports) was a primary outcome of this study. Based on etiologic research linking parenting problems with aggression, studies showing that parenting interventions lead to reductions in childhood aggression, and specific studies indicating positive effects of the FAST program on prevention of aggression, we expected that intervention children compared to controls would show less growth in aggressive behavior. We also expected that children in the FAST program compared to controls would show improvements in two important areas of social competence linked to aggression, self-control and social problem-solving skills (Guerra and Leidy 2008). Given the focus on social connectedness built into the FAST model, we also predicted that intervention children would demonstrate increases in their perception that adults in their community would intervene for the common good (e.g., Sampson et al. 1997). In addition, we were interested in whether FAST produced measurable changes in parent characteristics targeted by the intervention and predicted that FAST participation would lead to increased perceptions of others' willingness to intervene, greater social support, and improved well-being.

We planned to augment these findings with a qualitative study of parent participants. Yoshikawa et al. (2008) provide numerous examples of how qualitative research on intervention outcomes can enhance our understanding of the full range of mechanisms by which an intervention may take effect, reveal important outcomes that may not have been included in quantitative assessment, and shed light on specific implementation conditions that may moderate intervention outcomes.

Study 1: Quantitative Evaluation of the FAST Program

Method

Research Design

The study was conducted in the 92701 zip code of Southern California, an area of approximately 60,000 residents, 92% who are of Latino origin. A quasi-experimental design was used with randomization to condition at the community level. The decision to randomize at the community rather than family level was made in collaboration with our community partner. It was based on their negative experiences with past studies where families not selected to receive interventions due to family or individual level randomization schemes felt unfairly excluded from services, and developed negative feelings toward the community organization. Communities were defined as small geographic areas consisting of four to ten blocks, using residents' designations of community boundaries. Based on the catchment area served by our community partner, 13 distinct communities were identified for possible inclusion in the study. A computer generated random number was used to randomly assign two communities to the intervention condition and two communities to the control condition. Subsequent to random assignment to condition, we conducted a logistic regression estimating the relations between parent and child demographic characteristics and classification in the control group (scored "0") or the treatment group (scored "1") in order to determine their demographic equivalence. The results of this analysis are reported in Table 1. As shown, none of the characteristics of parents or children were significantly related to the likelihood of being in the intervention group.

Table 1 Logistic regression for parent and child demographics by group

Independent variables	Odds ratio	SE	<i>p</i> value
Child age	1.077	.156	.609
Child gender*	1.082	.280	.760
Child place of birth**	.569	.213	.132
Primary home language***	2.223	1.077	.099
Parent age	.993	.018	.682
Parent gender****	2.826	1.560	.060
Parent income	.962	.123	.761
Parent time in US	.968	.029	.281

* Scored "1" female and "0" male

** Scored "1" U.S. and "0" Mexico

*** Scored "1" Spanish and "0" English

**** Scored "1" female and "0" male

Participants

A total of 282 parents (263 mothers and 19 fathers) each with one focal child (144 females and 138 males), participated in either the intervention (140 parents) or control (142 parents) condition over 3 years. The average age of the child participants was 9.5 years ($SD = .91$). Almost all parents (99%) were born outside the US with 96% reporting Mexico as their country of origin. In contrast, 67% of the child participants were born in the US with only 32% born outside the US. Parents reported living in the US an average of 12 years ($SD = 5.91$). Approximately 64% of families lived in households with 5–7 members, and 16% lived in households with 8 or more residents. The average age of the parent/primary caregiver was 34 years old (range 19–60 years old). Household income was quite low, with 73% of parents reporting a total household income of less than \$15,000 in the prior year. Most parents (83%) were married or living with a partner and 17% were single, divorced, or separated.

Families were invited to participate in the study through door-to-door outreach conducted by trained community health workers who lived and worked in the same communities. In addition to residing in the selected communities, to be included in the study families had to be the parent or primary caregiver for at least one child between the ages of 9 and 12 living with him or her in the home. In the case where a parent had multiple children in the target age range, they were asked to identify one of their children between ages 9 and 12 as the “focus child” for the study. Written consent for participation was obtained from the parents and written assent was obtained from the focus children for participation in both the intervention and assessment.

Assessment

Pre-test, post-test (3-month), and follow-up (12-month) assessments for parents and children were administered individually in the participants’ homes by the same community health workers who had recruited the families. Of the 282 families that participated in the study, 205 (91 intervention, 114 control) completed pre-test and post-test surveys, and 190 (83 intervention and 107 controls) completed all three waves of assessment.

The parent survey consisted of 31 items from previously validated parent scales that had been used with or were deemed appropriate for Latino families. This measure assessed parent perceptions of social support, collective efficacy, general well-being, and children’s aggressive behavior.

Social support. Eleven items from the MOS social support scale (Sherbourne and Stewart 1991) were used to

assess parent’s perceptions of social support available to them from others in their community. A sample item is “If I have a problem, there is someone I can talk to about it.” A 4-point response scale was used ranging from 1 (never) to 4 (always) (coefficient alpha = .95).

Adult perceptions of community-level collective efficacy. We adapted three items from scales developed by the Project on Human Development in Chicago Neighborhoods (PHDCN) (Sampson et al. 1997). A sample item is “If children in the neighborhood are doing something wrong, adults would intervene to stop it.” A 5-point response scale was used ranging from 0 (very unlikely) to 4 (very likely) (coefficient alpha = .78).

General well-being. A single item was used to assess adult participants’ perception of their current health status (“In general, how would you describe your overall health and well-being?”). A 5-point response scale was used with lower scores indicating better health ratings.

Parent report of children’s aggression. Ten items from the Social Competence and Behavior Evaluation Scale (LaFreniere and Dumas 1996) were used to assess parent’s perceptions of child aggressive behavior. A sample item is “My child gets angry when interrupted.” A 6-point response scale from 1 (never) to 6 (always) was used (coefficient alpha = .83).

The child survey consisted of 22 items from previously validated parent scales that had been used with or were deemed appropriate for Latino families.

Social competencies. Two areas of social competence were assessed: (a) self control and (b) social problem-solving skills. Respondents answered all items on a 4-point scale ranging from 0 (never) to 3 (all of the time). Self control was measured with a 5-item scale tapping self-control and anger management adapted from Musher-Eizenman et al., (2004). A sample item is “When I’m upset, I can do things to calm down” (coefficient alpha = .62). Social problem-solving skills were measured by a 7-item scale from Causey and Dubow (1992). A sample item is “When I have an argument with my friends I try to think of different ways to solve it” (coefficient alpha = .78).

Child perceptions of community-level collective efficacy. This measure was based on similar scales used in the Project on Human Development in Chicago Neighborhoods (PHDCN) (Sampson et al. 1997). A sample item from the child willingness to intervene scale is “Kids in your neighborhood would help if a kid is making fun of/teasing another kid who is obviously weaker.” A sample item from the adult willingness to intervene scale is “Adults in your neighborhood would help if a kid is making fun of/teasing another kid who is obviously weaker.” For all items, a 4-point response scale was used ranging from 0 (never) to 3 (all of the time). Coefficient

alpha was .66 for child willingness items and .70 for adult willingness items.

Children's self-report of aggression. A 7-item scale from the Metropolitan Area Child Study (MACS 2002). A sample item is "I fight with other children." A 4-point response scale was used ranging from 0 (never) to 3 (a lot) (coefficient alpha = .80).

Intervention

FAST is an evidence-based family intervention that has been systematically replicated in several hundred communities and with diverse participants. This systematic program has well-documented procedures for training and implementation. Our intent was to implement the elementary school level FAST program with fidelity to the standardized protocol, with the only modification being the use of lay community health workers as participants on the intervention team. Prior to beginning the intervention, the FAST intervention team completed a 4-day certification training session delivered by certified trainers from FAST national. The team also was carefully monitored by the national certification center (FAST National). A second team certification training was held in year 2 again by a certified FAST trainer to refresh team skills and knowledge and to introduce new members to the team. In addition, weekly debriefing sessions were held between the program supervisor and the FAST team members during which time problems and concerns were discussed and improvement plans developed if indicated. For this study, the FAST intervention team was composed of community health workers, parents from the community, and a doctoral clinical psychologist from Mexico.

Each FAST intervention cycle consisted of two home visits (prior to beginning the multifamily group session) where a team member would introduce the family to the program, collect information about family interests, needs and strengths, and conduct a baseline assessment. These home visits were followed by 10 multifamily group sessions that met weekly for approximately 2.5 h with an average of 10 families participating. Over the course of the 2.5 h session, families are guided through a series of carefully planned activities including sharing a family meal, carrying out a family project such as designing a family flag, and playing a series of communication games. One parent participates in a support group, while the other conducts a modified parent–child play session from Parent Child Interaction Therapy with coaching from the FAST leadership team. Families also participate in a series of planned group activities such as FAST songs to build connections among the families. A raffle is held at the beginning of each session where one family receives a gift

basket designed especially for their family. At the end of the 10 weeks, families have the option of participating in monthly parent-led follow-up sessions for the next 24 months.

A measure of intervention fidelity was completed at two randomly selected sessions during each 10 session cycle. An average of 95% of prescribed intervention activities were implemented at each of the surveyed sessions across all intervention cycles showing a high degree of fidelity to the intervention model.

Results

Equivalence of Intervention and Control Groups

In addition to equivalence on demographic factors between the intervention and control groups (see Table 1), we also wanted to determine whether there were baseline differences between the two groups on the primary outcome measures of this study. A logistic regression was conducted that estimated the relations between the outcome measures and classification in the control and treatment groups. The results for the child data are presented in Table 2. Notice that all of the odds ratios but one are statistically insignificant, and they hover around 1.00, indicating that variation across the pre-test measures is not associated with an increase or decrease in the odds of being in the intervention or control groups. Although statistically significant, the coefficient for social problem solving-skills is weak. A unit increase on this measure is associated with a 6.5% decline in the odds of being in the intervention group. Apart from this relation, these findings suggest that the control and intervention groups score similarly on these outcome measures at the start of the intervention study (i.e., at baseline pre-testing).

The results of the analysis with the parent data are comparable. Those findings are shown in Table 3. Once again, the odds ratios vary around 1.00, and all but one are statistically insignificant. The one exception is the odds ratio for parent report of child aggressive behavior. That coefficient is statistically significant, but it represents a weak empirical relation. Specifically, a unit increase on this

Table 2 Logistic regression results for child scoring on key outcome measures and control-intervention group classification ($N = 282$)

Independent variables	Odds ratio	SE	<i>p</i> value
Self-reported aggression	.972	.054	.617
Self regulation	.997	.037	.936
Social problem-solving skills	.935	.030	.039
Willingness to intervene	.953	.046	.316

Table 3 Logistic regression results for parent scoring on key outcome measures and control-intervention group classification ($N = 282$)

Independent variables	Odds ratio	SE	<i>p</i> value
Parent report of child aggression	1.034	.015	.020
Parent health status	.993	.107	.948
Social support	.983	.012	.155
Perceived willingness to intervene	1.059	.040	.131

measure is associated with only a 3.4% increase in the odds of being in the intervention group, compared to the control group. In short, the results of the logistic regression involving the demographic characteristics and key outcome measures for parents and children suggest that the control and intervention groups are essentially equivalent.

Intervention Outcomes

Outcome variables were measured at three points in time—baseline pre-testing, 3-month post-testing, and 9-month follow-up (i.e., 12 months from baseline assessment), allowing the estimation of linear growth models within persons. To estimate these models, we determined the linear trend for each participant and whether this trend varied depending on participant classification in the control or intervention group. This involved using a multilevel procedure in Stata/SE 10.1 to estimate person level equations that included time (T1 = pre-testing, T2 = post-testing, and T3 = follow-up testing), group (0 = control, 1 = intervention), and a time-by-group interaction, and simultaneously estimated between person variability across the outcome measures, that is, a random intercept model (Rabe-Hesketh and Skrondal 2005). To address missing data from both attrition and non-response to items, we used multiple imputation using the method of “chained equations” in Stata/SE 10.1 (Carlin et al. 2008). All analyses reported below were conducted with multiply imputed data.

The coefficients presented in the tables below can be interpreted as follows. The coefficient for “group” represents the difference between the intercept of the intervention group compared to that for the control group. The intercept of the multilevel equation estimated is the intercept for the time trend of the control group. The coefficient for “time” is the estimated trend (slope or linear growth rate) for the control group, and the time-by-group interaction coefficient represents the difference between the estimated temporal trend for the intervention group compared to that for the control group. The central issue for these analyses is to determine whether changes in these outcome measures over the three points in time are in the desired direction for those in the FAST intervention and whether these changes are significantly different from

those in the control group, as indicated by a significant time-by-group interaction effect.

Child Outcomes. Linear growth models were estimated for five outcome measures assessing the child participants: child self-reported aggression, parent reports of child aggression, child self-reported impulse control, social problem-solving skills, and perceptions of others’ willingness to intervene. The results of the multilevel estimation are presented in Table 4.

Consider the two measures of aggressive behavior. As noted above, the two groups differed significantly at baseline pre-testing on parent-reported aggressive behavior, and that difference is revealed further in Table 4 by the statistically significant estimated group effect on parent-reported (but not self-reported) aggression. It indicates that the parents of the FAST children reported a significantly higher level of aggression than those in the control group. The time and time-by-group estimated effects suggest that self-reported and parent-reported aggression declined over the course of the study, which was the desired outcome. However, the decline for the control group was not statistically significant, and the decline for the FAST children was not significantly different from the temporal trend in the control group; self-reported ($b = -.16$, $SE = .08$, $p < .05$) and parent-reported ($b = -.83$, $SE = .31$, $p < .05$) aggression for intervention children significantly declined over the course of the study, but the decline was not significantly different from children in the control group. A similar pattern was found for impulse control. The time coefficient suggests that the control group improved, but that improvement was not statistically significant; the improvement for the FAST children was not significantly different from the children in the control group.

However, significant group differences were revealed for social problem solving-skills. The time coefficient shows these skills significantly declined over time for children in the control group, but the time-by-group interaction effect suggests that social problem-skills for the FAST children improved. Additionally, the improvement in the FAST children was significantly different (i.e., a greater positive direction) from the downward trend of children in the control group ($b = .832$, $SE = .259$, $p < .05$). Similarly, FAST children’s perceptions of their neighborhood peers’ willingness to intervene in problem situations also improved significantly, as suggested by the statistically significant time-by-group interaction effect ($b = .516$, $SE = .179$, $p < .05$).

Parent Outcomes. Linear growth models were estimated for three parent outcomes: current health status, perceived social support, and perceived willingness of neighbors to intervene in problem situations. The empirical results are presented in Table 5.

Table 4 Multi-level linear growth model of child outcomes

	Self-reported aggression		Parent-reported aggression		Self regulation		Social problem-solving skills		Willingness to intervene	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
<i>Independent variable</i>										
Time	−.90	.088	−.498	.320	.204	.150	−.403*	.183	.119	.126
Group	.217	.324	2.857**	1.147	−.263	.492	−1.972**	.628	−1.046**	.399
Time-by-Group	−.073	.125	−.334	.454	.035	.213	.832***	.259	.516**	.179
Intercept	1.767***	.228	22.966***	.808	13.855***	.347	16.688***	.4438	.681***	.281
<i>Variance components</i>										
Between persons	2.270		25.050		2.140		5.735		.726	
Within persons	2.198		29.036		6.396		9.469		4.494	
Within variance explained	.005		.012		.004		.015		.041	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Table 5 Multi-level linear growth model of parent perceived health, social support, and perceptions of neighborhood adults ($N = 282$)

	Perceived health status		Social support		Willingness to intervene	
	<i>b</i>	SE	<i>b</i>	SE	<i>b</i>	SE
<i>Independent variables</i>						
Time	−.034	.055	.978*	.446	.450***	.147
Group	.218	.183	−2.212	1.555	.391	.509
By-group	−.205**	.079	1.294*	.633	−.003	.208
Intercept	3.027***	.129	31.681***	1.095	11.862***	.359
<i>Variance components</i>						
Between persons	.331		38.584		4.010	
Within persons	.874		56.482		6.106	

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Perceived health status was coded in the direction of low scores indicating positive health status, and high scores indicating poor perceptions of overall health. Hence, negative estimated effects should be interpreted as changes in the desired direction. The statistically significant time-by-group interaction effect suggests that parents in the FAST intervention perceived their health as improving over the course of the study, compared to parents in the control group ($b = -.205$, $SE = .079$, $p < .05$). Similar results were revealed for perceptions of social support. Parents in the control group perceived social support as improving over time, as indicated by the statistically significant estimated time effect ($b = .978$, $SE = .446$, $p < .05$). However, the estimated time-by-group interaction effect shows that this improvement in perceived social support was significantly greater for the FAST parents, compared to those in the control group ($b = 1.294$, $SE = .633$, $p < .05$). In contrast, changes in parents' perceptions of neighborhood adults' willingness to intervene did not differ significantly between intervention and control groups.

Study 2: Qualitative Follow-Up with Family Participants in the FAST Program

Method

Sample and Participants

Convenience sampling was used to identify mothers who had been enrolled in any of the FAST intervention cycles. The sample was limited to mothers because the majority of participants in FAST were mothers. Two focus groups were conducted, each with five mothers who had been enrolled in FAST during the 3 year implementation period.

Focus Group Questions

A discussion guide composed of five primary questions with follow-up probes was developed for the focus group. The questions were designed to elicit information from participants about their satisfaction with the intervention,

and their perceptions of its impact at the individual, parent–child, family, and community levels.

Procedures

Written and verbal consent was obtained from focus group participants at the start of the focus group. A trained focus group facilitator led the groups. The focus group was conducted in Spanish with the assistance of a translator. Content of the group discussions was documented by a scribe and also audio taped. The audiotape was used to confirm notes taken by the scribe and then destroyed. Participant age, family size and time in the US were obtained as part of the focus group. No other demographic information or personal identifiers were collected.

Results

The results of the focus groups are organized into four categories: (a) impact on parent and parent–child interactions; (b) impact on focus child; (c) impact on relationships with other parents and community; and (d) overall satisfaction and recommendations for the program.

Impact on Parent and Parent–Child Interactions

Five themes were identified in the area of impact on parent and parent child interactions: changes in communication and expression of positive affect to child; changes in feelings of anger toward the child and use of verbal aggression; changes in amount of non-directed or leisure time spent with child; changes in self-efficacy and strategies related to discipline and enforcement of protective limits; impact of program on older siblings of the focal child.

All mothers who participated in the focus groups identified improved communication with their child as the most important outcome of the FAST intervention. Several mothers indicated that they had begun to tell their child they “loved” them and to communicate positive regard towards their child more easily after participating in FAST. These same mothers discussed how they had been victims of abuse as children and had never experienced intimate positive communication with their own parents. In the words of one mother, “I never knew how to do this. I didn’t have this when I was a child and didn’t know how to do this with my own children. Now I tell them I love them for the first time.” Others described how FAST helped them improve their communication with their children even in the context of significant life stress, “There’s so much going on. I’m so tired and upset a lot of the time. I’m always yelling at them instead. But in FAST I learned to talk to them. To say I love you.”

Mothers also described how FAST had had a positive impact on the way they managed their angry feelings. Several mothers described how they believed they had become significantly less aggressive towards their children since becoming involved in FAST. In the words of one mother (tearfully), “My son, he used to flinch when I raised my hand. I was always screaming at him. I didn’t know what else to do. My little boy, I love him. But he flinched when I raised my hand to get something. He thought I was going to hit him. I couldn’t stop yelling at him. I’m so much better now. I don’t yell. I talk to him. My voice is calm. I’m not as angry any more. I know this because he tells me I’m different. My own son tells me this. He told me ‘Mom your not so angry anymore. Mom you’ve changed.’ This is what I learned from the program (FAST).”

Almost every participant reported how they had increased the amount of time they spent in positive and playful activities with their children as a result of their time in FAST. “I never used to just stop and play with my son. I was always busy cleaning or something. I stayed home so I could be with my children, but then I never was. I wouldn’t (sic) believe it. Since FAST I do. I never used to do this. Now I do.” A number indicated that they had incorporated the positive activity/play time they learned to use in FAST to all of their children not just their focus child for FAST; and all of the mothers indicated that they believed that spending this type of positive time with their children was having a lasting and positive impact on their relationship with their focus child and other children overall. “My daughter, she talks to me now. She never used to tell me anything. We sit and do things and I listen now like in FAST. I think this is why.”

At least half the mothers, described making significant changes to the way they discipline their children as a result of FAST; shifting from strategies such as ignoring, yelling, and hitting to positive discipline approaches such as setting and enforcing limits. In addition, these same mothers also discussed how they had incorporated these strategies not only with their focus child for FAST, but with their older children, and in fact, indicated that the changes they had made in their method and consistency of discipline as a result of FAST were possibly having a greater effect on their interactions with their older mainly adolescent children than the 9–12-year-old focus child. This is how one mother tearfully described the struggles she was having with an older daughter and her perceptions of how FAST had affected their interaction. “My daughter was getting into gangs...she was having problems. They came looking for her. They were going to shoot her. FAST helped me with talking to her and I can tell her things. She tells me she felt she couldn’t talk to me before. Now I tell her she has to stay home and she does”.

Parents' Observations of Changes in their Children's Behavior due to FAST

Almost all participants reported an increase in their child's positive affect towards them, and towards other adults, and an increase in the child's willingness to share personal or intimate feelings or thoughts to the parent. Several mothers also described changes they observed in their teenage children who were not the focus of the FAST intervention but who they believe were also positively impacted by the program. Two mothers reported that their teenage children, one boy and the other a girl had been involved in high-risk behaviors including oppositional behavior at school, truancy and spending time with known gang members. These mothers reported that since the family's involvement in FAST, that their teenagers were doing better in school, had started "staying home instead of hanging out with homies," and were talking to their mothers openly about the problems they were having in school and with peers. They each attributed these changes to a more active and engaged discipline style where they more closely monitored their children's behavior, and when they disagreed with it, worked proactively to change it; and to improvements in their willingness and ability to listen to and convey empathy and support to their children during conversations. When asked why so many of the changes they attributed to FAST had to do with their teenage rather than younger children who were the actual focus of the intervention, participants explained that they felt their younger children were generally well-behaved and that the area where they were having difficulties was with their older children. In the words of several mothers, "They do fine until they have to go to middle school. Then the problems start." Several mothers explained that their children had not had problems until they entered middle school. These mothers attributed this change to negative influences from the new peers in the middle school, and to the increasing independence associated with adolescence.

Impact on Interactions with Other Parents and the Community

Participants were mixed on their perception of FAST's impact on their relationship with other parents. Some mothers said that they stayed in touch with other FAST mothers and relied on them for parenting-related support; however, no participant was able to describe changes in their community that they believed resulted from FAST. In the words of one mother, "No I don't feel any better in the community. I am close to my FAST families and I stay in touch with some. But I don't see anything (changing) around me."

Overall Experience and Satisfaction with FAST

All of the focus group participants reported high levels of satisfaction with FAST. The only recommendation was to extend the services indefinitely. All would recommend the program to their friends and other family members. When asked about the structure of the intervention (multifamily group sessions followed by monthly boosters), they all indicated the changes were the result of the multifamily group sessions and described the boosters as giving them a chance to stay in contact with other mothers. The elements of the program they felt were the most useful included the family meal and the child play session. Both components were described by parents as providing "aha" moments where they felt hope and saw the need to learn more effective ways of disciplining and communicating with their children.

General Discussion

Overall, the quantitative evaluation of the FAST program suggested that it had modest effects on child and parent outcomes. Relative to children in the control condition, intervention children showed improvements in social problem-solving skills and perceptions of collective efficacy. Intervention parents were more likely than their control counterparts to demonstrate increases in perceptions of social support and overall well-being. However, no significant differences in either parent- or child-reported aggression were found between the two groups.

Absent a qualitative follow-up study, we easily might conclude that the intervention was not effective in preventing aggression among immigrant Latino families, although it seemed to have a number of related benefits. Given a substantial literature documenting the effectiveness of the FAST program across multiple sites, it would be reasonable to speculate that our immigrant Latino families experienced a high degree of cumulative stress that contributed to children's aggression and that simply could not be counteracted through a brief family intervention (e.g., Liaw and Brooks-Gunn 1994; Metropolitan Area Child Study 2002). Further, we might suggest that the specific issues faced by this population (e.g., limited English proficiency, the acculturation gap between parents and children) were not targeted by the FAST program, requiring new culture-specific programs designed specifically to address these needs.

However, results from the qualitative study provide a strikingly different interpretation. Although a large body of literature supports the importance of early intervention before aggression becomes stable and habitual, in most cases related prevention studies have focused specifically on the most aggressive, at-risk children (Metropolitan Area

Child Study 2002). Given that the distribution of aggression is highly skewed, with most children scoring at the low end, there simply may not be enough variance within a lower-risk group to detect effects. Indeed, the mothers in the focus groups confirmed that aggressive behavior was not a problem until children reached middle school. This may be particularly true within Latino culture where respect for authority and embeddedness in the family context are highly valued (Leidy et al., *in press*). An intriguing and important finding from the focus groups was the positive impact the intervention had for older children in the family, something that was not measured in the quantitative study. This also suggests the possibility of sleeper effects for the focus children, that may become evident when these children transition to adolescence and middle school, and suggests that longer term follow-up will be needed to capture and understand the full effects of the intervention,

FAST is based, in part, on parent–child interaction therapy. An important goal of the program is to improve parent–child communication and interrupt negative interaction patterns. As parents become more effective at collaborative problem-solving and discussion with their children, our findings support a beneficial effect on children’s problem-solving skills and expectations that others will be more responsive to problematic situations. FAST also is designed to build support among parents, which increased for intervention versus control participants. From the focus group comments, as well as ongoing feedback by LHA promotores and staff throughout the course of the study, the FAST program was particularly well-suited for immigrant Latino families. The family group format with family activities (including the meal) and emphasis on strengthening parents’ authority were well-received and consistent with the Latino cultural values of familism and respect. As we have discussed, the lack of impact on younger children’s aggression may be due to the low base rates of this behavior in this age group, undetected sleeper effects that may become apparent only after transition to adolescence, and of course, may reflect the fact that for children growing up with multiple economic and social stressors, to be maximally effective, preventive efforts may need to extend to multiple levels of their social ecology (Guerra and Leidy 2008).

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