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## Strengthening Family Practices for Latino Families

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### Abstract

The study examined the effectiveness of a culturally-adapted Strengthening Families Program (SFP) for Latinos to reduce risks for alcohol and drug use in children. Latino families, predominantly Puerto Rican, with a 9–12 year old child and a parent(s) with a substance abuse problem participated in the study. Pre- and post-tests were conducted with each family. Parental stress, parent-child dysfunctional relations, and child behavior problems were reduced in the families receiving the intervention; family hardiness and family attachment were improved. Findings contribute to the validation of the SFP with Latinos, and can be used to inform social work practice with Puerto Rican families.

### KEYTERMS

Latinos; family; children; prevention; alcohol; drugs

### INTRODUCTION

There is an increasing awareness that family plays an important role, as both a risk and protective factor, for children developing problem behaviors. Empirical evidence suggests that family variables are consistent predictors of conduct problems and alcohol and drug use and abuse among children (Castro et al., 2006; Hesselbrock & Hesselbrock, 1990; Loeber & Stouthamer-Loeber, 1986). Children whose biological parent(s) have a history of substance dependence are at risk for greater alcohol use and the related consequences (Chassin, Rogosch, & Barrera, 1991; Sher, Walitzer, Wood, & Brent, 1991). Childhood conduct problems, including aggression and rule-breaking, also predict both earlier and more problematic drinking in adolescence and young adulthood (Hesselbrock & Hesselbrock, 2006; Zucker, 2008).

## LITERATURE REVIEW

### Parenting and Family Environment

While peer influence is reported to be a major risk to drug use initiation or delinquency, parental disapproval is a major factor preventing children's engagement in delinquency and alcohol and drug use (Coombs, Paulson, & Richardson, 1991). Parental disciplining has consistently been associated with the development of alcohol and drug abuse among adolescents. Lack of parental monitoring, poorly defined and communicated rules for children's behavior, and inconsistent or excessively severe discipline are risk factors for children's use of alcohol and drugs (Dishion & Kavanagh, 2001; Haggerty, Kosterman, Catalano, & Hawkins, 1999; Hogue, Johnson-Leckrone, & Liddle, 1999; Molgaard, Spoth, & Redmond, 2000). Parental stress, substance abuse, and mental health problems can compromise a mother's and father's parenting abilities, and increase family discord and child behavioral difficulties (Deater-Deckard, 1998; Leinonen, Solantaus, & Punamaki, 2003; Leverton, 2003). Children from families characterized by high stress and family dysfunction are at greater risk for substance use problems (Kumpfer, 1998).

Studies of alcohol and drug abuse have further found that while parental substance abuse is associated with increased risk of substance abuse among children, not all children of substance abusers develop problems with alcohol and other drugs. Studies have reported a moderating effect for family-level resilience factors on alcohol and other drug use (Johnson et al., 1998; Johnson et al., 1996). It has been suggested that resilience results from factors that buffer the at-risk individual from being affected by exposure to adverse experiences (Anthony & Cohler, 1987). Among families with strengthened resilience, there may be a delay or reduction in the frequency of alcohol and other drug use in youth (Johnson et al., 1998). Protective family factors include caring adults, emotional support, appropriate developmental expectations, family interactions, and increased communication (Haggerty, Kosterman, Catalano, & Hawkins, 1999; Kumpfer, Olds, Alexander, Zucker, & Gary, 1998).

### Strengthening Families Program

The Strengthening Families Program (SFP) is a multi-component and family focused intervention that intends to prevent problems in children of substance abusing parents (Kumpfer, 1998; Kumpfer & Alvarado, 1998). It is based on the assumption that through strengthening families, problems such as substance abuse and delinquency in children can be prevented. The SFP was designed to affect parent, child, and family factors in at-risk families through parent training, children's social skills training, and family role-playing. In order to increase protective family factors, Kumpfer (1998) suggested three critical components of family interaction: 1) family attachment, bonding, and affective relationships; 2) guidance in making good friends through supervision and support; and 3) the transmission of norms and skills through discussion and role modeling. The SFP has been found effective in early studies, and continues to be tested in families of different ethnic groups (Kumpfer, Alvarado, Smith, & Bellamy, 2002). It is listed on the Substance Abuse and Mental Health Services Administration's (SAMHSA) National Registry of Evidence-based Programs and Practices (SAMHSA, 2007).

### Cultural Adaptation

Castro, Barrera, and Martinez (2004) recommend modifying prevention interventions to accommodate the needs and characteristics of specific ethnic populations. An effective prevention program for Latino families should consider key facets of Latino culture, including the cultural values of parental respect and *familismo* (Gil, Wagner, & Vega, 2000; Marin & Marin, 1991), personal preferences such as *personalismo* (Comas-Diaz, 1994), traditional gender roles (Arredondo, Weddige, Justice, & Fitz, 1987; Marin & Marin, 1991), and spiritualism (Koss-Chioino, 1995). The particular stresses and risk factors experienced by

Latino families should also be considered. For immigrant families who live in high-risk neighborhoods, harsh and deteriorated inner-city conditions can overwhelm positive changes made in family therapy (Robbins & Szapocznik, 2000).

Furthermore, families may deal with high stress levels resulting from generational differences in acculturation between parents and children (Kurtines & Szapocznik, 1995). In families, the effects of acculturation can lead to changes in relationships between parents and their children. Children generally acculturate faster than their parents, which may reduce parents' sense of control and power in the parent-child relationship (Garcia-Preto, 2005). Gil, Wagner, and Vega (2000) identified acculturative stress and the reduction of traditional Latino values of *familismo* and parent respect as important mediators through which acculturation affects alcohol use in adolescent males. Greater acculturation to the U.S. culture and length of time in the U.S. is associated with higher levels of alcohol use in women and younger men (Caetano, 1987; Gil, Wagner, & Vega, 2000). Adaptations to a new cultural environment involve psychological changes, internal crisis, and stress which can result in increased vulnerability to the misuse of harmful substances (Szalay, Canino, & Vilov, 1993; Velez & Ungemack, 1989).

## METHODS

This article describes the study of a culturally-adapted SFP for implementation with Latino families. Family interventions have been identified as an effective prevention strategy for Latino youth due to the particular importance of family as a protective factor in the Latino community (Sale et al., 2005). The Latino Family Connection Project (LFCP) was implemented with urban Latino, primarily Puerto Rican, families with a child ages 9 – 12 and a parent who had either received substance abuse treatment or had a documented substance use disorder. Adolescence is a period of high risk for the initiation of alcohol and drug use (O'Malley, Johnston, & Bachman, 1998). The LFCP targeted families with pre-adolescent children for the purpose of delaying or averting substance use and abuse in this at-risk population (i.e., children of substance abusing parents). Kumpfer and Alvarado (1998) reported family skills training programs to be most effective with children 3 to 12 years of age. The Strengthening Families curriculum has been previously adapted and tested with a Mexican-American population (Hernandez & Lucero, 1996). However, limited outcome data was available regarding protective factors and risks for alcohol and other drug use. This study, to our knowledge, was the first test of the effectiveness of the SFP with a predominantly Puerto Rican population.

For the LFCP, it was expected that families' participation would lead to improvements in three related domains, involving parent/caregiver, child, and family outcomes. Expected positive parental outcomes included reductions in substance use, depressive and anxiety symptoms, and parenting distress. A decrease in children's behavior problems, intentions to use or use of alcohol, tobacco, and other drugs (ATOD), and the number of friends who use alcohol and other substances was also predicted. Children's knowledge of alcohol and other drugs, and pro-social behavior was expected to increase. Improvement in family relations was additionally anticipated by increasing family attachment and decreasing dysfunctional parent-child interactions.

### Sample

Families of Latino descent, primarily Puerto Rican, from two urban centers in Connecticut participated in the study. The inclusion criteria included: Latino families with a child between 9–12 years old and at least one parent who received treatment for a substance use disorder or otherwise had a documented substance use disorder. Families were recruited through presentations, and brochures and flyers distributed by program staff. Churches, elementary

schools, family courts and resource centers, mental health agencies, alcohol and drug treatment facilities, and youth service bureaus were contacted to serve as referral sources to the project.

## Procedures

A quasi-experimental design was implemented with the Latino Family Connection intervention (LFC) and no-intervention comparison (NIC) groups recruited in separate, but demographically similar cities. Families in the intervention group received the LFC program. The NIC families did not receive the SFP intervention, but received communications and seasonal gifts to maintain engagement in the study and informal referral services when requested. Each family identified one parent/caregiver and an age-eligible child to be interviewed for the study. Human protection procedures were reviewed with both the parent/caregiver and the child, as approved by the University's Institutional Review Board. Written consent was provided by the parent/caregiver and assent by the child before baseline interviews were conducted.

Pre- and post-tests were administered separately to each parent/caregiver and participating child. Families received an incentive for completing the research interviews, \$25.00 for the baseline interviews and \$35.00 for the exit interviews. The LFC group completed 198 baseline interviews (100 parents/caregivers, 98 children) and 135 exit interviews (67 parents/caregivers, 68 children). The NIC group completed 174 baselines (87 parents/caregivers, 87 children) and 135 exits (68 parents/caregivers, 67 children). Participants completing both the baseline and exit assessments were selected for this study (LFC: 67 parent/caregivers, 67 children; NIC: 68 parent/caregivers, 67 children). Study completers were similar to non-completers (i.e., participants completing either the baseline or exit, but not both) based on parent/caregiver gender, child gender, marital status, years of education, and employment status. Differences between the two groups were identified. Completing parents/caregivers were older in age [38.16 (9.86) vs. 33.34 (6.17);  $t(185) = -3.31, p = .001$ ] than non-completers, less likely to be treated for a substance use disorder [14.2% vs. 26.4%;  $\chi^2(1) = 3.91, p = .048$ ], and less likely to be born on the U.S. mainland [15.6% vs. 31.4%;  $\chi^2(1) = 5.81, p = .016$ ].

The goals of the LFCP were concurrent with those of the SFP: to reduce substance abuse risk factors while increasing protective factors among children of substance abusing parents, as well to improve parenting skills of participating parent/caregivers. The intervention consisted of 10 sessions and one booster session over 11 weeks. Participants attended weekly multi-family groups. The sessions lasted 3 hours. The first hour included a family meal, and the second hour separate skills building training for children and parents/caregivers. Topics covered in skills workshops for parents/caregivers included the use of attention and reinforcements to increase wanted behaviors in children, developmentally appropriate expectations for children's behavior, limit setting, problem solving, and alcohol and other drug education. Children's workshops covered such topics as understanding feelings, problem solving, good behavior and compliance with parental rules, resisting peer pressure, and questions and discussion about alcohol and other drugs. For the third hour, parents/caregivers and children were brought back together for the family strengthening component to practice the skills acquired in the previous hour. For example, families made chore charts and spinners (i.e., pie charts with sections representing rewards that children may earn if they complete the chores and the spun arrow lands on it).

The SFP was adapted to reflect the cultural needs of the target group. Modifications were directed at program delivery and curriculum content. The program was offered in a community agency with extensive experience working with Puerto Rican and other Latino groups. The sessions were offered in Spanish and English. Further, the program delivery staff was bi-lingual and bi-cultural; they played a mediating role for parents between the Latino and Anglo worldviews/cultures. Parents and children were helped to examine topics from their own

cultural perspective and to compare the two different cultural perspectives. For example, cultural differences emerged when parents/caregivers learned about rewarding children for good behavior, which challenges Latino beliefs that good behavior is expected out of the values of *respeto* and *dignidad*. In addition, program content was adapted to cover culturally-relevant topics for Latino families (e.g. the effect of culture and acculturation on the parent-child relationship). Examples and family descriptions used during lessons were changed to reflect familiar cultural experiences. Additional program activities were also implemented, for example, the celebration of the traditional Puerto Rican holiday Three Kings Day.

## Measures

Three subscales from the Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995) were administered to parents/caregivers. 1) The *parental distress* scale assesses each parent/caregiver's level of distress in his/her role as a parent; 2) the *parent-child dysfunctional interaction* scale measures the parent/caregiver's perceptions of parent-child estrangement; and 3) the *difficult child behavior* scale measures how easy or difficult the child is to manage. Each subscale contains 12 items and ranges in score from 12 to 60, with higher scores indicating greater levels of stress.

**Mental health**—Parents/caregivers were asked about their mental well-being in the past 30 days. Each parent/caregiver indicated whether he/she had experienced significant periods of depression (i.e. sadness, hopelessness, loss of interest, and difficulty with daily function) and anxiety (i.e. tension, uptight, unreasonably worried, and inability to feel relaxed). Excluded were periods of depression or anxiety attributed to alcohol or drug use.

**Parent ATOD use**—Self-reports of current (i.e. past 30 days) alcohol, cigarette, and illegal drug use, and treatment history for alcohol and drugs were collected. Each participating parent/caregiver also indicated whether her/his spouse or partner had a lifetime alcohol or drug use problem.

**Aggression and sociability**—Parents/caregivers completed the aggressive behavior and social contact subscales from the Parent Observation of Child's Activities (POCA-R; Kellam, 1990). The POCA was adapted from the Teacher's Observation of Classroom Adaptation-Revision (Werthamer-Larsson, Kellam, & Wheeler, 1991). The social contact subscale consisted of 8 items such as is friendly, plays with other children, and has lots of friends, while the aggressive behavior subscale included 17 items (e.g. breaks rules, yells at others, breaks things, and fights). For this study, both subscales had good internal consistency (aggressive behavior,  $\alpha = .86$ ; social contact,  $\alpha = .77$ ).

**Child alcohol and cigarette use**—The ages of first use for cigarette smoking and drinking alcohol (more than a few sips) were collected from participating children and used to calculate lifetime rates of alcohol and cigarette use (lifetime use vs. never used).

**Perceived ATOD risk**—Children responded to questions asking how much people risk harming themselves (physically and in other ways) if they use alcohol, marijuana, cigarettes, and glue, gasses or sprays. Response categories ranged from (1) no risk to (4) great risk. Nine risk questions were summed for a total risk score; higher scores indicated more perceived risk. The risk scale had good internal consistency,  $\alpha = .78$ , with the current sample.

**Peer ATOD use**—Children were asked how many of their friends use alcohol, cigarettes, marijuana, cocaine, and glue, gasses, or sprays to get high, with categories ranging from (0) none to (4) all. Six items were summed to create a total peer ATOD use score (0 – 24); the scale's coefficient alpha was .78 for this study.

**Family hardiness**—Parents/caregivers completed the 20-item Family Hardiness Index (FHI; McCubbin & Thompson, 1991). Hardiness is characterized by a family's sense of control over life events and hardships. The total scale was summed after reverse-scoring. The FHI has good internal consistency with an alpha of .82 (Fischer & Corcoran, 2007).

**Family attachment**—The family attachment scale included 6 items; three questions repeated for the mother and the father. Children were asked whether they enjoy spending time, feel very close, and share thoughts and feelings with their mother/father. A higher score indicated stronger emotional bonds with the parents. The family attachment scale has good internal consistency ( $\alpha = .75$  to  $.79$ ) and is equally reliable for males and females across grades 6 to 11 (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002).

## Data Analysis

Baseline characteristics were generated by group (LFC, NIC) for parent/caregiver and child participants. Groups were compared on demography and alcohol and drug use and related-problems. Independent *t*-tests were applied to continuous data, while the  $\chi^2$  statistic was used to examine group differences on categorical measures. A probability value of  $p < .05$  was applied in determining statistical significance for all analyses conducted using SPSS for Windows (v.15).

Repeated measures analysis of variance (ANOVA) was used to test continuous outcome variables. The group by time interaction effect was evaluated to identify significant group (LFC/NIC) differences for change from baseline to exit. Cross tabulations for categorical outcome variables by group were tested using the chi-square statistic ( $\chi^2$ ). Each categorical outcome variable was created by combining baseline and exit measures into a single four-category variable. For example, the depression outcome variable included categories for participants reporting: 1) yes for depression symptoms at baseline and no at exit, 2) yes for depression symptoms at both baseline and exit, 3) no depression symptoms at baseline and exit, and 4) no for depression symptoms at baseline and yes at exit. Categorical outcome variables for anxiety symptoms, current cigarette use, and current alcohol use were developed in the same manner.

## FINDINGS

### Sample Characteristics

Characteristics for the study sample as measured at baseline are provided in Table 1. The LFC ( $n = 67$  parents/caregivers;  $n = 67$  children) and NIC ( $n = 68$  parents/caregivers;  $n = 67$  children) groups did not differ on those measures assessed ( $p$ 's  $> .05$ ). Adult participants were primarily non-substance abusing Puerto Rican women, in their mid-thirties, with high school or less education. Most parents/caregivers (LFC 82.1%; NIC 86.8%) were born outside the U.S. mainland in Puerto Rico or other countries. The children (LFC 97.0%; NIC 98.5%) were living with the participating parent/caregiver at the time of the intervention. Most children reported never smoking cigarettes or drinking alcohol in their lifetime. More than half of children in both groups (54.5% LFC; 51.5% NIC) were female.

### Parent/caregiver, Child, and Family Outcomes

Table 2 provides baseline and exit mean statistics for continuous outcome variables tested. Pre- to post-test differences between the LFC and NIC groups were evaluated by domain (i.e., *parent/caregiver*: parental distress, mental health, and ATOD use; *child*: problem and social behaviors, perceived ATOD risk, friends' use of ATOD; *family*: hardiness, attachment, parent-child interaction). Participants in the LFC group demonstrated the most evidence of improvement in the family domain. The LFC families showed an increase in family hardiness

[ $F(1, 133) = 23.07, p < .001$ ] and family attachment [ $F(1, 89) = 4.24, p = .042$ ] and a reduction in parent-child dysfunctional interaction [ $F(1, 133) = 8.18, p = .005$ ], while there was little change from baseline to exit for the comparison group.

For the children, a reduction in difficult behavior [ $F(1, 133) = 10.25, p = .002$ ] and aggression [ $F(1, 133) = 5.59, p = .020$ ] as reported by the parent/caregiver was identified for the LFC group but not the comparison group. While this change did not meet criteria for statistical significance, an improvement in social contact was also detected for LFC children when compared to the NIC children [ $F(1, 133) = 3.12, p = .080$ ]. There were no group differences for children's perception of risk for alcohol, tobacco, and other drugs [ $F(1, 63) = .26, p = .610$ ] and friends' use of drugs and alcohol [ $F(1, 123) = .29; p = .592$ ]. At baseline, few children in either group reported having friends who used alcohol or drugs, and both groups reported that alcohol, tobacco, and other drug use constituted a relatively high risk. There was little change for these measures at the post-test.

Parents/caregivers in the LFC group reported a change in parental distress compared to the NIC group [ $F(1, 133) = 20.35, p < .001$ ]. After completing the intervention, LFC parents/caregivers reported reduced distress in their role as a parent. A trend ( $p < .10$ ) for group differences in depressive and anxiety symptoms was identified [depression,  $\chi^2(3) = 7.62, p = .055$ ; anxiety,  $\chi^2(3) = 7.46, p = .059$ ]. More (33.3% vs. 13.2%) parents/caregivers with baseline depressive symptoms in the LFC group reported no symptoms at the exit interview than the NIC group. Similarly, 30.3% of LFC parents/caregivers reporting baseline anxiety symptoms reported no symptoms at exit compared to 14.7% of corresponding NIC parents/caregivers. See Table 3 for parent/caregiver status from baseline to exit on categorical measures of depression, anxiety and substance use. Little change and no group differences were found for the percentage of parents/caregivers reporting current cigarette [ $\chi^2(3) = 5.13, p = .163$ ] or alcohol use [ $\chi^2(3) = 4.75, p = .191$ ].

## DISCUSSION

### Strengthening Latino Families

This study of the LFC program provides preliminary evidence that a culturally adapted SFP for Latino families is effective. Significant changes for LFC families were identified in children's reduced aggressive and difficult behavior, improved family relationships, and reduced parental stress. The LFC intervention was not instrumental in reducing alcohol and drug use for parents/caregivers and children. However, most parents who participated in the SFP did not have problems with alcohol and other drugs, and child participants and their friends rarely used alcohol or drugs. Similarly, at baseline most children reported that using alcohol and drugs was a high risk, allowing little opportunity for improvement.

The current study builds on existing research validating the SFP as an evidence-based prevention intervention. The SFP has demonstrated efficacy in improving parenting skills, children's aggression and other problem behaviors, and family relationships in at-risk families (Kumpfer, 1998; Substance Abuse and Mental Health Services Agency, 2007). The program has been adapted for African American, Asian/Pacific Islander, Latino, and American Indian families. Research testing the SFP in ethnically diverse families primarily reported positive findings among families with substance abusing parents; weaker results for programs serving families with non-substance abusing parents (Kumpfer, 1998; Kumpfer, Alvarado, Smith, & Bellamy, 2002). Studies of the SFP with African American families have been mixed. Aktan, Kumpfer, and Turner (1996) reported parenting and child behavior improvements and reductions in parental drug use for families in Detroit, while results from the randomized trial of the Strengthening Washington D.C. Families Project found minimal effects (Gottfredson et al., 2006).

There are limitations for this evaluation of the SFP with Latino families that should be noted. The study was originally designed to implement a standard experimental design, assigning families randomly to groups. However, initial slow recruitment necessitated the assignment of all participating families from one urban area into the LFP group and from the second into the NIC group. While statistically significant differences between the two groups at baseline were not found, threats to internal validity cannot be ruled out.

This study was also limited to immediate post-tests, leaving the long-term effects of the LFC program unexamined. A 5-year follow-up of the original SFP study sample found lasting improvements in parenting skills and family relationships (Kumpfer, 1998). The children participating in the LFCP had not entered the age for high risk to initiate the use of alcohol and drugs. It is not clear whether the effects of the program will persist as children enter into the age at risk. Furthermore, attrition for both LFC and NIC groups was high. Participants who continued in the study were different than those who dropped out in several ways. Younger age for the parent/caregiver was identified as a potential barrier for participating in the LFC program. Participants treated for a substance use disorder or born on the U.S. mainland were also more likely to drop out. It may be important to incorporate additional support services for younger and substance-abusing parents/caregivers, as well as to address specific barriers for Latinos who are likely more acculturated to the U.S. culture.

## CONCLUSION

The culturally adapted LFC intervention may be effective for Latino families in the prevention of alcohol and drug use problems in children of substance abusing parents. Kumpfer, Alvarado, Smith, and Bellamy (2002) noted weaker outcomes for the SFP implemented with non-substance abusing Hispanic (e.g. Mexican) families in Denver. Current findings offer some evidence of the efficacy of the SFP with a predominantly Puerto Rican population. Risk factors for alcohol and drug abuse in children, including parental stress, parent-child dysfunctional relations, and child behavior problems, were reduced in families participating in the LFC program. As well, the protective factors of family hardiness and family attachment were improved in the families. These results make a significant contribution to validating the SFP with Latinos, and can be used to inform social work practice with Puerto Rican families. The ability to generalize study findings to other Latino families is less evident. More research is needed with ethnically diverse populations to classify the SFP as an evidence-based prevention intervention with other Latino groups.

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TABLE 1

## Baseline Characteristics for Sample by Group

	LFC	<i>n</i>	NIC	<i>n</i>
<i>Parents/caregivers</i>				
Age	37.73 (10.37)	66	38.57 (9.38)	68
Education (years)	9.50 (3.02)	62	10.41 (3.48)	68
No. of children	3.11 (1.42)	66	3.37 (1.51)	68
% Female	90.9	66	89.6	67
Ethnicity (%)				
Puerto Rican	76.1	51	88.2	60
Mexican	14.9	10	7.4	5
Other Latino	9.0	6	4.4	3
Place of birth (%)				
U.S. mainland	17.9	12	13.2	9
Outside U.S. mainland	82.1	55	86.8	59
% Employed, FT/PT	33.4	66	36.7	68
% Married	34.8	66	34.3	67
% Treated for SUD	18.2	66	10.3	68
% Spousal history of substance use problem	78.8	66	69.1	68
<i>Children</i>				
Age	10.65 (1.25)	66	11.10 (1.34)	63
% Female	54.5	66	51.5	68
% Live with participating parent/caregiver	97.0	66	98.5	68
% Drank alcohol (lifetime)	10.4	67	10.4	67
% Smoked cigarettes (lifetime)	1.5	67	9.0	67

*Notes.* No significant group differences at  $p < .05$ ; values listed are  $M (SD)$  unless otherwise noted; FT/PT = employed full-time or part-time; SUD = substance use disorder.

TABLE 2

Parent/caregiver, Child, and Family Outcomes by Group and Test

	LFC			NIC		
	Baseline	Exit	n	Baseline	Exit	n
<i>Parent/caregiver</i>						
Parental distress ***	32.45 (8.94)	26.69 (9.97)	67	28.74 (8.72)	29.75 (9.45)	68
<i>Child</i>						
Difficult behavior **	33.43 (9.32)	27.55 (9.40)	67	29.74 (9.34)	28.37 (8.81)	68
Aggression *	27.45 (7.58)	24.79 (6.23)	67	25.44 (6.68)	25.43 (5.62)	68
Sociability	25.52 (4.57)	27.03 (4.15)	67	27.43 (4.69)	27.53 (4.44)	68
Perceived ATOD risk	23.19 (3.55)	23.13 (2.99)	32	23.06 (3.00)	22.42 (5.25)	33
Friends using ATOD	1.00 (2.05)	0.85 (2.14)	66	1.02 (2.22)	0.66 (1.39)	59
<i>Family</i>						
Family hardness ***	39.58 (7.21)	44.22 (7.26)	67	43.96 (7.74)	42.85 (8.60)	68
Parent-child dysfunctional Interaction **	27.87 (8.66)	23.87 (8.47)	67	23.68 (8.85)	23.65 (7.69)	68
Family attachment *	20.20 (3.62)	21.27 (2.93)	45	20.63 (3.30)	20.52 (3.10)	46

Notes. Values listed are *M* (*SD*); statistically significant group\*time differences are marked,

\*  $p < .05$ ;

\*\*  $p < .01$ ;

\*\*\*  $p < .001$ ;

ATOD = alcohol, tobacco, and other drugs.

**TABLE 3**  
Parent/Caregiver Depression, Anxiety and Substance Use Status from Baseline to Exit by Group

Baseline/Exit Status	Yes/No		Yes/Yes		No/No		No/Yes	
	LFC	NIC	LFC	NIC	LFC	NIC	LFC	NIC
% Depressed (past 30 days)	33.3 (n = 22)	13.2 (n = 9)	31.8 (n = 21)	41.2 (n = 28)	24.2 (n = 16)	32.4 (n = 22)	10.6 (n = 7)	13.2 (n = 9)
% Anxious (past 30 days)	30.3 (n = 20)	14.7 (n = 10)	37.9 (n = 25)	33.8 (n = 23)	27.3 (n = 18)	39.7 (n = 27)	4.5 (n = 3)	11.8 (n = 8)
% Current cigarette use	5.1 (n = 3)	6.0 (n = 4)	39.0 (n = 23)	20.9 (n = 14)	52.5 (n = 31)	70.1 (n = 47)	3.4 (n = 2)	3.0 (n = 2)
% Current alcohol use	9.7 (n = 6)	3.0 (n = 2)	3.2 (n = 2)	10.4 (n = 7)	77.4 (n = 48)	77.6 (n = 52)	9.7 (n = 6)	9.0 (n = 6)

*Notes.* Values listed are percentages; No statistically significant group differences at  $p < .05$  were identified; Yes/No = yes at baseline, no at exit; Yes/Yes = yes at both baseline and exit; No/No = no at both time points; No/Yes = no baseline, yes exit.