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A Randomized Controlled Trial of Familias Unidas for Hispanic Adolescents With Behavior Problems

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Abstract

Objective—To evaluate the efficacy of Familias Unidas, a Hispanic-specific, parent-centered intervention, in preventing/reducing adolescent substance use, unsafe sexual behavior, and externalizing disorders.

Methods—A total of 213 8th grade Hispanic adolescents with behavior problems and their primary caregivers were assigned randomly to one of two conditions: Familias Unidas or Community Control. Participants were assessed at baseline and at 6, 18, and 30 months post baseline.

Results—Results showed that, relative to a Community Control condition, Familias Unidas was efficacious in preventing or reducing externalizing disorders, preventing and reducing substance use, and in reducing unsafe sexual behavior. The effects of Familias Unidas on these outcomes were partially mediated by improvements in family functioning.

Conclusions—These findings suggest that parent-centered intervention is an efficacious strategy for preventing/reducing specific health risk behaviors in Hispanic adolescents with behavior problems.

Keywords

prevention; HIV; substance use; Hispanic; family; externalizing disorders

INTRODUCTION

Drug/alcohol use and unsafe sexual behavior represent two of the leading preventable causes of serious injury and death among adolescents and young adults (1), and these outcomes are clearly tied to earlier markers, such as externalizing behavior problems (2).

Three groups for which drug/alcohol use and sexual risk taking are most prevalent are adolescents and young adults (3), ethnic minority individuals (especially African Americans and Hispanics) (4), and individuals with comorbid psychiatric problems (5,6). Youth who initiate regular drug/alcohol use in early adolescence are most likely to progress to problematic use and to experience impairments in other areas of their lives, such as academic performance and family relationships (7). Additionally, drug/alcohol use and sexual risk taking pose considerable risks for human immunodeficiency virus (HIV) infection— especially given that

adolescents are most likely to engage in unsafe sexual practices as they are drunk or high (8). It is therefore imperative to prevent and/or reduce drug/alcohol use and unsafe sexual behaviors in adolescence.

Ethnic Disparities in Drug/Alcohol Use and Unsafe Sexual Behavior

There is evidence that Hispanics are considerably more likely than white Americans to engage in sex without a condom (3). Moreover, in early and middle adolescence, rates of drug and alcohol use are higher in Hispanics than in whites or African Americans (4). These health disparities are especially worrisome given that Hispanics represented >15% of the U.S. population in 2007 (9) and that nearly 40% of Hispanics are under the age of 20 years (10). The youth and growth rate of the Hispanic population, combined with health disparities in both drug/alcohol use and unsafe sexual behavior, suggest that preventing these behaviors among Hispanics is an urgent public health priority.

Drug/Alcohol Use and Unsafe Sexual Behavior in High-Risk Populations

There is evidence that substance use and sexual risk taking are often preceded by conduct problems, such as aggression and rule-breaking (11,12), and that adolescents with problem behavior are more likely than other adolescents to have co-occurring psychiatric disorders (13,14). Given that age, ethnicity, conduct problems, and psychiatric comorbidity may each pose risks for drug/alcohol use and unsafe sexual behavior, individuals with all of these risk factors—such as Hispanic adolescents with behavior problems and comorbid psychiatric symptomatology—may be at the highest risk for problematic outcomes. Efficacious interventions that are grounded in theoretically and empirically based models of risk and protection (15,16) are therefore urgently needed for these adolescents.

Familial Risk and Protective Factors for the Problem Behavior Syndrome

Conduct problems, drug/alcohol use, and sexual risk taking are known to be associated with similar risk and protective mechanisms (17,18). Many of the most powerful protective mechanisms against these problems operate within the family. For example, positive parental involvement with, communication with, and support for the adolescent as well as appropriate rewards for good behavior and parental monitoring of adolescent activities are among the strongest inverse predictors of problem behaviors in adolescents (19).

Familias Unidas: An Intervention to Prevent Problem Behavior in Hispanic Adolescents

Despite the urgent need to develop and implement interventions to prevent or reduce drug/alcohol use and unsafe sexual behavior in Hispanic adolescents, few such interventions have been subjected to rigorous empirical evaluation. Perhaps the intervention model that has received the most empirical support is Familias Unidas (20–22). Consistent with Hispanic cultural expectations, Familias Unidas works directly with parents to provide them with skills and knowledge necessary to raise effectively adolescents in the United States. Trained facilitators target developing effective parenting skills in parent-group sessions, which parents are encouraged to implement with their adolescents in facilitator-supervised family visits.

Familias Unidas has been evaluated in two randomized clinical trials. In the first trial (20), Familias Unidas was found to be significantly more efficacious than a community control condition in promoting family functioning (e.g., positive parenting) and in reducing adolescent conduct problems in a community sample of Hispanic adolescents. In the second trial (22), Familias Unidas was found to be more efficacious than either an HIV prevention module alone (23) or an attention control health promotion intervention in promoting family functioning and in preventing or reducing adolescent cigarette use, illicit drug use, and unsafe sexual behavior

in a community sample of Hispanic adolescents. Improvements in family functioning were found to mediate the effects of Familias Unidas on adolescent risk outcomes.

Present Study

In the present study, we sought to evaluate the Familias Unidas intervention with high-risk Hispanic adolescents with behavior problems. We purposely sampled adolescents who ranked high on parent reports of behavior problems, and these adolescents were assigned randomly to receive Familias Unidas or referrals for community services.

This study had two aims. The first aim was to investigate whether Familias Unidas would be efficacious relative to Community Control in a) preventing substance use (cigarette, alcohol, and marijuana use) and unsafe sexual behavior as well as reducing externalizing disorders (attention deficit/hyperactivity disorder, oppositional defiant disorder, and conduct disorder) in Hispanic adolescents with behavior problems; and b) improving family functioning (parent-adolescent involvement, communication, positive parenting, support, and monitoring of peers). The second aim was to examine whether improvements in family functioning would mediate the effects of intervention condition on adolescent outcomes.

Study Hypotheses¹

Hypothesis 1—Over time, adolescents randomized to Familias Unidas will be less likely to report substance use (i.e., alcohol use, cigarette use, and marijuana use) during the 30 days before each assessment point compared with Community Control.

Hypothesis 2—Over time, adolescents randomized to Familias Unidas will be less likely to report externalizing disorders compared with Community Control.

Hypothesis 3—Over time, adolescents randomized to Familias Unidas will be less likely to engage in unprotected sex during the 30 days before each assessment point compared with Community Control.

Hypothesis 4—Parents randomized to Familias Unidas will report greater improvements in family functioning between baseline and postintervention compared with Community Control.

Hypothesis 5—Improvements in family functioning during the intervention will mediate the effects of intervention condition on adolescent substance use, unsafe sexual behavior, and externalizing disorders between baseline and 30 months post baseline.

METHODS

This study was conducted between January 2004 and July 2008. Approval for this study was obtained from the University of Miami Social/Behavioral Sciences Institutional Review Board and from the Miami-Dade County School Board's research committee.

Participants

Participants in the present study were 136 boys and 77 girls (mean $\pm$ standard deviation [SD] age = 13.8 ± 0.76 years) and their primary caregivers ($n = 27$ men, 186 women; mean $\pm$ SD age = 40.0 ± 6.5 years). Only 13.1% of the families reported household incomes of $>\$30,000$.

¹Consistent with our own work (28) and that of others (30), hypotheses pertaining to family functioning, the proximal outcome targeted in Familias Unidas were examined in terms of change trajectories within the 6-month intervention period. Distal outcomes—adolescent substance use, unsafe sexual behavior, and externalizing disorders—were examined in terms of change trajectories from baseline to 2½ years post intervention.

per year. A slight majority (56.1%) of adolescents were born in the United States. Immigrant adolescents ($n = 93$) and parents were primarily born in Honduras (26.9%), Cuba (20.4%), and Nicaragua (16.1%). Of foreign born adolescents, 36.6% ($n = 34$) had been living in the United States for <3 years, 45.2% ($n = 42$) between 3 to 10 years, and 18.3% ($n = 17$) for 11 or more years.

Participant Recruitment—Adolescents and their families were recruited from three large, predominantly Hispanic middle schools located within a single urban low-income school district in Miami-Dade County, Florida. School counselors at each of the participating schools were asked to identify Hispanic 8th grade students who had at least “mild problems” on at least one of three Revised Behavior Problem Checklist (24) (RBPC) subscales: conduct disorder; socialized aggression; and attention problems. Because no prior consent had been obtained from the families at this point, school counselors did not complete any forms or provide any information to project staff regarding potential participants. Identified youth were provided letters to bring home to their parents describing the study. Parents who indicated they were interested in participating were contacted by study staff, and a screening and baseline assessment was scheduled.

During screening, the parent and adolescent were asked to provide their informed consent/assent. The screening included a check for inclusion/exclusion criteria and completion of the RBPC subscales. Only adolescents rated by their parents as ≥ 1 SD above the nonclinical normed mean (24) on at least one of the three RBPC scales were included in the study. Adolescents also had to be of Hispanic immigrant origin (at least one parent born in a Spanish speaking country in the Americas), to be in the 8th grade, to have an adult primary caregiver willing to participate in the study, and to live within the catchment areas of one of the three middle schools included in the study. Adolescents were excluded if a) the family was planning to move out of the catchment areas of the three schools during the intervention period, or out of the South Florida area during the remaining 3 years of the study; b) the adolescent did not assent to participate; or c) scheduling conflicts prevented parents from participating in intervention sessions.

During recruitment, 531 potential participants were identified, of which 318 either refused ($n = 74$; 13.9%) or did not meet the eligibility criteria ($n = 244$; 46.0%). The remaining 213 participants completed the baseline assessment and were randomized to one of the two conditions (Fig. 1).

The present study used a 2 (Condition) $\times$ 4 (Time) randomized controlled design. Participants were assessed at baseline, randomized to either Familias Unidas or Community Control, and reassessed at 6, 18, and 30 months post baseline. The study used an intent-to-treat design. An urn randomization (25) program was used, which balanced on adolescent gender, years in the United States (i.e., 0–3, 3–10, or >10), having initiated substance use (yes, no), and having initiated (yes, no) oral, vaginal, or anal sex.

Intervention

Familias Unidas—Familias Unidas is a Hispanic-specific, family-based preventive intervention designed to reduce risk for and increase protection against adolescent behavior problems, substance use, and sexual risk behaviors. Hispanic-specific cultural issues are integrated into all aspects of the intervention including the underlying theoretical model, the specific content of the sessions, and the format of the intervention activities (20,21). Consistent with the risk/protection literature and with Hispanic culture, Familias Unidas aims to prevent substance use and sexual risk behaviors by increasing family functioning. The intended dosage for families randomized to the Familias Unidas intervention included nine 2-hour group sessions and ten 1-hour family visits. Families also attended four 1-hour booster sessions during the follow-up phase, at approximately 10, 16, 22, and 28 months post baseline.

Community Control—Community control families were given three referrals to agencies in their catchment area that serve youth with behavior problems. These families had no other contact with the study, except for assessment activities. Unfortunately, data on the proportion of community control participants who sought services from these referrals were not collected.

Facilitators and Training of Facilitators

Four Hispanic facilitators (three Master's and one PhD level) conducted the Familias Unidas intervention sessions. Before conducting intervention activities, facilitators had at least 5 years of clinical experience working with urban, low-income Hispanic immigrant families and they were extensively trained and certified in Familias Unidas by the treatment developer (22).

Adherence and Fidelity

All sessions in the Familias Unidas intervention were videotaped with participants' consent. To assess adherence to the intervention, independent raters rated all of the videotaped group sessions and 25% of the family visits. Observational adherence measures were developed to identify key (prescribed) facilitator behaviors for each intervention session. All facilitator prescribed behaviors (e.g., established group alliances) were rated on an extensiveness/quality rating ranging from "0 = not at all/very poor" to "6 = extensively/excellent." The average ($\pm$ SD) rating for all three intervention modules was "considerably/good" (4.98 ± 0.18).

Procedures

Parent and adolescent assessments were conducted in the language of their choice (i.e., English and Spanish), using audio computer-assisted self-interviewing methodology (26). Each questionnaire item, along with the response scale, was read to the participant through a set of headphones. The participant indicated her/his response by entering the appropriate response on the laptop, after which the system proceeded to the next item. Families were compensated \$20, \$25, \$30, and \$35 for completing the assessment at baseline, 6, 18, and 30 months post baseline, respectively. Families were also compensated \$30 for transportation at each assessment point.

Measures

Demographics—Adolescents and parents completed a demographics form on which they provided their date and country of birth, number of years lived in the United States, and national origin. Parents were also asked about their marital status and household income.

Family functioning included five parent-reported indicators: parent involvement; positive parenting; family support; parent and adolescent communication; and parental monitoring. The Parenting Practices Scale (27) was used to obtain reports of parental involvement (20 items, $\alpha = 0.83$), and positive parenting (parent: 9 items, $\alpha = 0.78$). The Parent-Adolescent Communication Scale (28) was used to obtain parent report (20 items) of effective communication ($\alpha = 0.78$). The Family Relations Scale (29) was used to obtain parent reports of family support (6 items, $\alpha = 0.63$). The Parent Relationship with Peer Group Scale (30) was used to obtain parent reports (5 items, $\alpha = 0.84$) of parental monitoring.

Substance use was assessed, using items similar to those used in the Monitoring the Future Study, a national epidemiologic study of adolescent substance use (4). At each assessment, adolescents were asked whether they had ever smoked, drunk alcohol, or used an illicit drug in their lifetime and in the 30 days before assessment. Adolescents who indicated having used illicit drugs in the past 30 days were asked about the frequency of their use of a variety of drugs including marijuana, cocaine, amphetamines, methamphetamines, and barbiturates. Because

base rates for the other illicit drugs were extremely low, only marijuana was used in the analyses.

Sexual Risk Behaviors—Sexual risk behaviors were measured, using items from the Sexual Behavior instrument (31). At each assessment time point, adolescents were asked to indicate whether they had ever had sex (including vaginal, anal, and oral sex) in their lifetime and in the 90 days before assessment. Adolescents who reported having had sex were asked how often condoms were used, ranging from “1 = never” to “5 = always.”

Externalizing Disorders—Parent reports on the Diagnostic Interview Schedule for Children (DISC) predictive scales (32) were used to assess externalizing behavior problems (e.g., attention deficit hyperactivity disorder, oppositional defiant disorder and conduct disorder). Although the DISC predictive scales do not provide formal psychiatric diagnoses, there are established cutoffs (32) which have been found to be predictive of formal psychiatric diagnoses. In the study validating the DISC Predictive Scales against formal psychiatric diagnoses, diagnostic sensitivity and specificity for the disorders being assessed in this study ranged from 0.61 to 0.96 (32).

Data Analytic Strategy

Mplus version 5.1 (33) was used to test all of the study hypotheses.

Hypotheses 1, 2, and 3—Tests of Hypotheses 1 and 2 were conducted, using growth curve modeling. Growth curve analyses were used to estimate individual trajectories of change and to test for slope differences between conditions over time. For Hypothesis 3 (unprotected sexual behavior), a two-part growth curve (34) was used because of the preponderance of zeroes among sexual behavior scores. The first part of the growth curve modeled changes in whether adolescents had engaged in sexual intercourse during the 3 months before each assessment point (binary), whereas the second part of the growth curve accounted for the frequency of condom use (continuous) for those individuals who reported sexual intercourse in the past 3 months. Growth curve modeling is more powerful and versatile than repeated-measures ANOVA because it allows for missing data, with the assumption that the data are missing at random (35). For each of the three distal outcomes (i.e., substance use, unprotected sexual behavior, and externalizing disorders), data from all four assessment points were used.

Hypothesis 4—To test whether there were any significant differences in family functioning between baseline and 6 months post baseline (post intervention), a family functioning measurement model was first tested for measurement invariance between baseline and 6 months post baseline (36). A confirmatory factor analysis was conducted with both factor loadings and intercepts constrained to be equal across time, and the fit of this model is compared with that of a model with loadings and intercepts free to vary across time. Provided that the null hypothesis of invariance was retained, a family functioning factor score was computed at baseline and at 6 months based on the factor loadings from the confirmatory factor analysis. The family functioning factor score at both baseline and 6 months post baseline was estimated, using full information maximum likelihood (37), and hence there are no missing data for the factors score at baseline and 6 months post baseline, respectively. Finally, an ANOVA was used to compare changes in family functioning between baseline and 6 months post baseline across both conditions.

Hypothesis 5—Mediational analyses were planned to examine whether significant changes in family functioning (if any) might have mediated the effect of the intervention on any of the three distal outcomes: substance use, unprotected sex, or externalizing behavior problems. For each outcome for which the effect of condition was statistically significant, a growth curve

controlling for the change in family functioning was then estimated (38), and mediation was assumed if the path from intervention condition to the slope of the outcome variable was reduced to nonsignificance when the change in family functioning was added to the model.

RESULTS

Comparability of Conditions at Baseline

The χ^2 tests and analyses of variance (ANOVAs) indicated no significant differences at baseline by condition on any of the demographic characteristics, lifetime sexual behavior, unprotected sexual behavior in the 90 days, and externalizing disorders (Table 1). However, family functioning differed significantly by condition at baseline ($F(1, 211) = 5.63, p < .002$).

Additionally, because the criterion that was used to determine those variables that should be controlled for in the analyses was $p < .25$, as suggested by Bendel and Afifi (39), we controlled for: baseline levels of substance use in the substance use growth curve analysis; baseline levels of family functioning in the family functioning analysis; and baseline levels of positive parenting and parental monitoring for the positive parenting and parental monitoring analyses, respectively.

Tests of Hypotheses

Hypothesis 1: Substance Use—Growth curve analyses showed a significant difference in past 30-day substance use between Familias Unidas and Community Control ($b = 0.53, z = 2.42, p < .02; d = 0.25$).² The proportion of youth reporting substance use in Familias Unidas increased from 15% at baseline to 21% at the 6-month postbaseline assessment, and then remained stable with 25% youth reporting substance use at the 30-month postbaseline assessment. The observed trajectories increased at a steeper rate over time for youth in the Community Control condition. At baseline, 13% of youth reported using a substance, whereas at 30 months post baseline, this proportion had increased to 34%. Thus, Community Control experienced a 162% increase in the proportion of youth reporting substance use over time (Fig. 2).

Hypothesis 2: Externalizing Behavior Problems—Growth curve analyses indicated no significant difference in the percentage of parent-reported youth externalizing behavior problems over time between Familias Unidas and Community Control, although there is a trend favoring Familias Unidas ($b = 0.41, z = 1.85, p < .10; d = 0.18$) such that the percentage reporting externalizing behavior problems over time decreases at a faster rate for Familias Unidas (from 68.2% at baseline to 32.6% at 30 months post baseline) relative to Community Control (64.7% at baseline to 41.0% at 30 months post baseline).

Hypothesis 3: Unprotected Sexual Behavior—The two-part growth curve analyses indicated that the binary portion of the growth curve (i.e., whether adolescents engaged in sexual intercourse) did not differ significantly across conditions ($b = -0.03, z = -0.17, p = .86; d = 0.05$), suggesting that similar proportions of youth reported having had sexual intercourse over time between Familias Unidas and Community Control. However, the continuous part of the growth curve (i.e., frequency of condom use for youth who reported having had sexual intercourse) was statistically significant ($b = -0.32, z = -2.29, p < .03; d = 0.30$). As shown in Figure 3, sexually active youth randomized to Familias Unidas reported significantly increased level of condom use from 6 months to 30 months postbaseline assessment compared with those randomized to the Community Control condition.

²Because the proportion of youth reporting substance use at baseline was marginally significant (i.e., $p < .20$), for this hypothesis we controlled for baseline levels of lifetime substance use.

Hypothesis 4: Family Functioning—A family functioning measurement model was first tested for measurement invariance between baseline and 6 months post baseline. The results suggested measurement invariance across time in terms of both the factor loadings and the intercepts ($\Delta\chi^2(8) = 9.19, p = .33$). A confirmatory factor analysis model, with both factor loadings and intercepts constrained to be equal across time, provided an adequate fit to the data, $\chi^2(34) = 66.0, p < .001$; comparative fit index = 0.95; root mean square error of approximation = 0.06. Finally, the results of the ANOVA (using the factor scores created from the confirmatory factor analyses) indicated significant differences in family functioning between Familias Unidas and Community Control, $F(1, 211) = 17.5, p < .001$, with parents in the Familias Unidas reporting significantly greater improvements in family functioning compared with the Community Control condition (Fig. 4).

Hypothesis 5: Mediation Analyses—Mediation analyses were conducted to determine whether family functioning mediated the effects of intervention on past 30-day substance use and unprotected sexual behavior. Mediation analyses were not conducted on externalizing behavior problems because there were no significant intervention effects on this outcome. When changes in family functioning were controlled for in the growth curve for past 30-day substance use, the results indicated that the growth trajectories between Familias Unidas and Community Control were not significantly different from each other ($b = 0.24, z = 0.89, p = .37$). This suggests that family functioning mediated the effects of intervention condition on substance use. When changes in family functioning was controlled in the growth curve for unprotected sexual behavior, the results indicated that the continuous part of the growth trajectories between Familias Unidas and Community Control remained significantly different from each other ($b = -0.389, z = -2.83, p < .01$). This suggests that family functioning did not mediate the effects of intervention condition on unprotected sexual behavior.

Decomposition of Family Functioning—The significant omnibus effect of intervention condition on family functioning from baseline to 6 months postbaseline assessment was then followed up, using post hoc exploratory analyses. Because these analyses were conducted to examine the overall omnibus test for family functioning, Bonferroni corrections were not applied (40). In these analyses, the family functioning factor was decomposed into its five component indicators (parental involvement, family support, positive parenting, parent adolescent communication and parental monitoring) to explore the specific aspects of family functioning that were affected by Familias Unidas. ANOVAs on changes from baseline to 6 months postbaseline assessment indicated significant differences in positive parenting, $F(1, 187) = 9.32, p < .05$; parent-adolescent communication, $F(1, 187) = 9.168, p < .004$; and parental monitoring of peers, $F(1, 187) = 21.552, p < .001$, between Familias Unidas and Community Control. No significant differences by condition were observed for parent involvement or family support.

Mediation Analysis: Positive Parenting, Parent-Adolescent Communication, and Parental Monitoring of Peers—We conducted post hoc analyses to determine whether positive parenting, parent-adolescent communication, and parental monitoring of peers mediated the effects of condition on past 30-day substance use. When changes in positive parenting, parent-adolescent communication, and parental monitoring of peers were controlled in the growth curve for past 30-day substance use, results indicated that the growth trajectories between Familias Unidas and Community Control were not significantly different ($b = 0.35, z = 1.45, p = .15$; $b = 0.42, z = 1.19, p = .24$; $b = 0.56, z = 1.13, p < .26$, respectively). These results suggest that positive parenting, parent-adolescent communication, and parental monitoring of peers mediated (at least partially) the effects of Familias Unidas on substance use.

Incidence of Externalizing Disorders—Post hoc analyses were also conducted to explore whether the prevalence (at any point in time, other than baseline) of adolescent externalizing disorders significantly differed by condition. The results indicated that the incidence of externalizing disorders was significantly different by condition, $\chi^2(1) = 4.76, p < .03; w = 0.29$. The incidence of externalizing disorders in Familias Unidas was 32.0% compared with 61.3% for Community Control.

DISCUSSION

The purpose of the present study was to evaluate the efficacy of Familias Unidas with an indicated sample of Hispanic adolescents who had behavior problems and were at significant risk for drug and alcohol problems, HIV infection, and other problem behaviors. To the authors' knowledge, the present study is the first to examine the efficacy of a culturally specific intervention in preventing substance use, unprotected sexual behavior, and externalizing disorders in Hispanic adolescents with behavior problems. Results suggested that Familias Unidas was efficacious in reducing substance use, sexual risk behaviors, and externalizing disorders in this at-risk population. The effects of the intervention were partially mediated by improvements in family functioning.

The findings from the present study and from our prior work (20,22) affirm the importance of family functioning in preventing youth substance use and HIV risk behaviors. There is evidence that family processes are inextricably intertwined with the development of substance use (41) and HIV risk behaviors (42), and that family-based interventions are among the most efficacious in preventing these adolescent problem behaviors (41,43,44). The present results also suggest that three of the five family processes assessed—positive parenting, parent-adolescent communication, and parental monitoring—may be most important in protecting Hispanic adolescents from substance use and sexual risk taking. As in our past findings, parental involvement and family support were not associated with the efficacy of Familias Unidas.

Unlike the results from our previous study, where trajectories of substance use decreased over time for the Familias Unidas intervention and emerged most strongly at the 2-year follow-up, the results from this study suggest a slightly different picture. In this study, substance use rates increased for youth in both conditions—as might be expected in a high-risk sample. Nonetheless, it is important to note that the increases in substance use in the Community Control condition were substantially greater than those in Familias Unidas.

Regarding unsafe sexual behavior, sexually active adolescents in Familias Unidas reported having been significantly more likely to use condoms during the past 90 days than their counterparts in the Community Control condition. This finding is particularly important given that Hispanic youth report higher rates of unprotected sexual behavior than other ethnic groups. To our knowledge, only Familias Unidas (22) and one other intervention (45) have been found to be efficacious in reducing HIV risk behaviors among Hispanic youth. Finally, the incidence of externalizing disorders was substantially greater for youth in Community Control (61%) than for youth in Familias Unidas (32%). This is of particular importance given the prevalence of externalizing disorders among U.S. Hispanic youth (46).

Limitations

The present results should be considered in light of several important limitations. First, the present sample is not representative of the U.S. Hispanic population, and hence the results should be generalized with caution. The U.S. Hispanic population is comprised mostly of Mexican Americans, who represent 65% of all legal U.S. Hispanic residents (10) and a large majority of unauthorized migrants (47)—but who were not well represented in our sample. It

is important, then, to replicate the present results with a representative sample of Hispanic adolescents and their families.

Second, like all prevention studies, the sample was limited to those who consented and assented to participate in the study. Self-selection biases may be associated with such samples, in that participants who enroll in the intervention may have better functioning families than those who do not enroll (48). However, a statistical comparison of ineligible participants versus those who were eligible revealed that there were no significant differences between those that were eligible versus those who were ineligible on any of the variables listed in Table 1.

A third limitation is that, in this study, we asked school counselors to identify Hispanic 8th graders who had at least “mild problems” on at least one of three RBPC (24) subscales: conduct disorder; socialized aggression; and attention problems. Our choice for using this method was to bias the sample to be overly inclusive and minimize the chances of not identifying youth with behavior problems. Thus, we believe that we minimized the number of eligible youth who were not identified by the school counselors as having behavior problems. On the other hand, this definition may have resulted in us initially identifying youth who did not meet the formal study criteria of behavior problem as demonstrated by the fact that 46% of the identified possible cases did not later meet the inclusion criterion for behavior problems.

A final limitation is the reliance on self-report measures, which are vulnerable to social desirability effects (49). For example, there may be biases involved in self-reports of drug use. Although self-reports tend to converge reasonably well with biomarkers of drug use in minority adolescents (50), there is evidence that some adolescents provide false-negative reports of drug use (51). However, prior research (52) has found that the use of audio computer-assisted interviewing, as used in the present study, increases the veracity of responding.

Conclusions and Future Directions

Despite these limitations, the present study may have important practical implications for clinical practice as well as for research. For practice, it is clear that working primarily with parents may be an especially efficacious strategy for preventing or reducing problem behaviors among Hispanic adolescents, and perhaps among adolescents in general. Improving family functioning is vital in preventing substance use and unsafe sex in Hispanic adolescents.

The present results suggest that Familias Unidas is efficacious in preventing problem behaviors among Hispanic youth. Familias Unidas has now been found to be efficacious in three randomized controlled trials (20,22). Now that its efficacy has been adequately demonstrated, evidence-based interventions, such as Familias Unidas, should be moved from efficacy to effectiveness to broad dissemination, to prevent substance use, HIV risk behaviors, and externalizing disorders in Hispanic adolescents (53).

In conclusion, the present results suggest that Familias Unidas may have the potential to help reduce disparities in substance use and HIV rates between Hispanic adolescents and other ethnic groups by preventing and reducing substance use and sexual risk behaviors in high-risk Hispanic adolescents. It is hoped that additional work will be conducted to evaluate Familias Unidas, and other empirically based interventions, to reduce health disparities in this youthful, rapidly growing, and vulnerable U.S. Hispanic population.

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Figure 1.
Flow of study participants.

Figure 2.
Past 30 days substance use by condition.

Figure 3.
Past 90 days frequency of condom use by condition.

Figure 4.
Family functioning score by condition.

TABLE 1
Baseline Comparisons by Intervention Condition on Demographic Characteristics and Outcome Variables

Variables	Condition				
	Familias Unidas (<i>n</i> = 109)		Community Control (<i>n</i> = 104)		
	<i>n</i> (%)	Mean (SD)	<i>n</i> (%)	Mean (SD)	χ^2 or <i>F</i> Value ^a <i>p</i>
Gender: frequency (%) males and females	M = 68 (62.4) F = 41 (37.6)		M = 68 (65.4) F = 36 (34.6)		0.207 .649
Years in the U.S., <i>n</i> (%)					
0–3	18 (16.5)		17 (16.5)		
3–10	23 (21.1)		25 (24.3)		
>10	68 (62.4)		61 (59.2)		0.322 .851
Family income— frequency (%)					
\$0–\$9,999	32 (29.4)		32 (30.8)		
\$10,000–\$19,999	42 (38.5)		46 (44.2)		
\$20,000–\$29,999	20 (18.3)		13 (12.5)		
>\$30,000	15 (13.8)		13 (12.5)		
Family functioning factor score (SD)		–0.46 (1.68)		0.04 (1.39)	5.63 .019
Parent-adolescent communication (SD)		69.4 (10.7)		70.5 (10.6)	0.584 .45
Family support (SD)		16.9 (3.8)		16.8 (3.3)	0.008 .93
Parental involvement (SD)		57.8 (7.9)		59.5 (6.0)	2.90 .09
Positive parenting (SD)		20.1 (3.1)		21.1 (2.9)	6.67 .01
Parental monitoring (SD)		14.1 (4.7)		15.8 (4.0)	8.29 .004
Lifetime substance use (binary)	44 (40.4)		55 (52.9)		3.35 .067
Past 30-day substance use (binary)	16 (14.7)		14 (13.5)		0.07 .798
Had sex in the past 90 days (binary)	16 (14.7)		18 (17.3)		0.274 .601
Frequency of condom use in the past 90 days		2.93 (1.43)		3.37 (1.16)	1.0 .325
Externalizing behavior problems	73 (68.2)		66 (64.7)		0.29 .590

^a χ^2 value was reported for categorical variables and the *F* value was reported for continuous variables.

M = mean; SD = standard deviation.