Reducing Alcohol and Other Drug Use by Strengthening Community, Family, and Youth Resiliency:

An Evaluation of the Creating Lasting Connections Program

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The Creating Lasting Connections 5-year demonstration project was designed to delay onset and reduce frequency of alcohol and other drug use among high-risk 12- through 14-year-old youth by positively impacting resiliency factors in three domains: church community, family, and individual (youth). Major program components included church community mobilization, parent/guardian training, youth training, early intervention services, and follow-up case management services. The program was implemented in multiple church communities in rural, suburban, and inner-city settings. The evaluation employed a true experimental design with three repeated measures over a 1-year period. Results showed that the program successfully engaged church communities in substance abuse prevention activities and produced positive direct effects on family and youth resiliency, as well as moderating effects on onset and frequency of alcohol and other drug use. Findings that are consistent with the program message and significant learnings are highlighted.

In recent years, there has been an increasing interest in designing programs that center on risk and resiliency factors as mediators or moderators of

This study was funded by Grant SPO 1279 from the Center for Substance Abuse Prevention (CSAP). The contents are solely the responsibility of the authors and do not represent the official views of CSAP.

Journal of Adolescent Research, Vol. 11 No.1, January 1996 36-67

exposure to risk for youth alcohol and other drug (AOD) use and other problem behaviors (Brook, Brook, Gordon, Whiteman, & Cohen, 1990; Hawkins, Catalano, & Miller, 1992; Rutter, 1985; Werner, 1989). Program designers also have devoted attention to comprehensive prevention strategies that consist of conceptually based models with multiple components that attempt to reduce multiple risks and enhance multiple resiliency factors (Adcock, Nagy, & Simpson, 1991; Cazares & Beatty, 1994; Newcomb, Maddahian, Skager, & Bentler, 1987; Rutter, 1985). This multifaceted approach was applied in this program study, which targeted factors in the community, family, and youth domains.

In regard to the community, its influence on AOD use among youth long has been recognized in terms of both risk factors (Hawkins et al., 1992) and resiliency factors (Benard, 1991; Werner, 1990). Moreover, the recognition of relationships between community-level factors and AOD use has focused more attention on getting the community involved in substance abuse prevention activities (Hawkins & Catalano, 1992; Kaftarian & Hansen, 1994). Central to these community initiatives is empowerment, whereby people and groups gain mastery over their affairs (Bandura, 1986; Florin & Wandersman, 1990; Rappaport, 1987).

Within the family domain, a number of risk and resiliency factors have been viewed as important. Of particular relevance to this demonstration were knowledge and beliefs (Barnes & Welte, 1986; Kandel, Simcha-Fagan, & Davies, 1986); family planning, communication, and interaction (Reilly, 1979; Tec, 1974); parent modeling of alcohol use (Barnes, 1990; Brook, Whiteman, Gordon, & Brook, 1988; Hansen et al., 1987); and family involvement in help-seeking in the community (Werner & Smith, 1982).

Individual-level risk and resiliency factors also are important correlates of adolescent substance use and abuse. Key factors that have been found to be important in prevention programming and that were included in this demonstration were knowledge and beliefs about alcohol use (Kandel et al., 1986); life skills, including communication, social, and refusal skills (Englander-Golden, Elconin, Miller, & Schwartzkopf, 1986; Gurian & Formanek, 1983); family bonding (Hawkins et al., 1992; Volk, Edwards, Lewis, & Sprenkle, 1989); and involvement in help-seeking (Werner & Smith, 1982).

Although the promotion of AOD prevention programming has increased dramatically in recent years, few rigorous evaluations have been conducted of these programs (Lorion & Ross, 1992). In two separate research reviews, only about 40% of the documented AOD prevention projects included evaluations with an experimental or quasi-experimental design, which is one indicator of the lack of rigor (Schaps, Dibartolo, Moskowitz, Palley, &

Churgin, 1981; Tobler, 1992). Further, Lorion and Ross (1992), in reviewing 130 projects funded by the Center for Substance Abuse Prevention (CSAP) during the first cycle (1987), included only one project with a true experimental design. This state of model construction and evaluation in the prevention field has led to strong advocacy for designing conceptual-based models using rigorous experimental designs (Cazares & Beatty, 1994; Lorion & Ross, 1992).

This article highlights a conceptual-based demonstration model and the results of a rigorous evaluation that shows that resiliency at the community, family, and individual levels can be increased and that resiliency factors in multiple domains are important in reducing substance use among high-risk youth. Following is a description of the demonstration program (Creating Lasting Connections), evaluation methodology, results and discussion, and highlights of the results that are consistent with the program message. A detailed description of the program and its evaluation can be found in Council on Prevention and Education: Substances, Inc. ([COPES] 1995) and Johnson, Berbaum, Bryant, and Bucholtz (1995).

CONCEPTUALIZING THE CREATING LASTING CONNECTIONS INTERVENTION

The Creating Lasting Connections (CLC) program, which was an ecumenical church-based model, incorporated features of the four basic prevention models: information, affective education, social competencies, and alternative (Jaker, 1985). The program provided didactic instructional training about AOD information and the dynamics of chemical dependency to increase knowledge and appropriate beliefs. Participants were encouraged to improve their personal growth through increasing self-awareness, expression of feelings, interpersonal communication, and self-disclosure. CLC participants were taught social and refusal skills, which provide a strong defense against environmental risk factors, and they were provided opportunities to practice these skills in a safe group setting. Social supports were used by mobilizing the community to reach out to families in need. Additionally, the program provided families with desirable alternative activities.

The model targeted those community, family, and personal resiliency factors that research has shown are related to the likelihood of AOD use among 12- through 14-year-old youth. A conceptual model presented in Figure 1 was developed to accent the expected effects associated with the program objectives. This model posits causal relationships between a set of

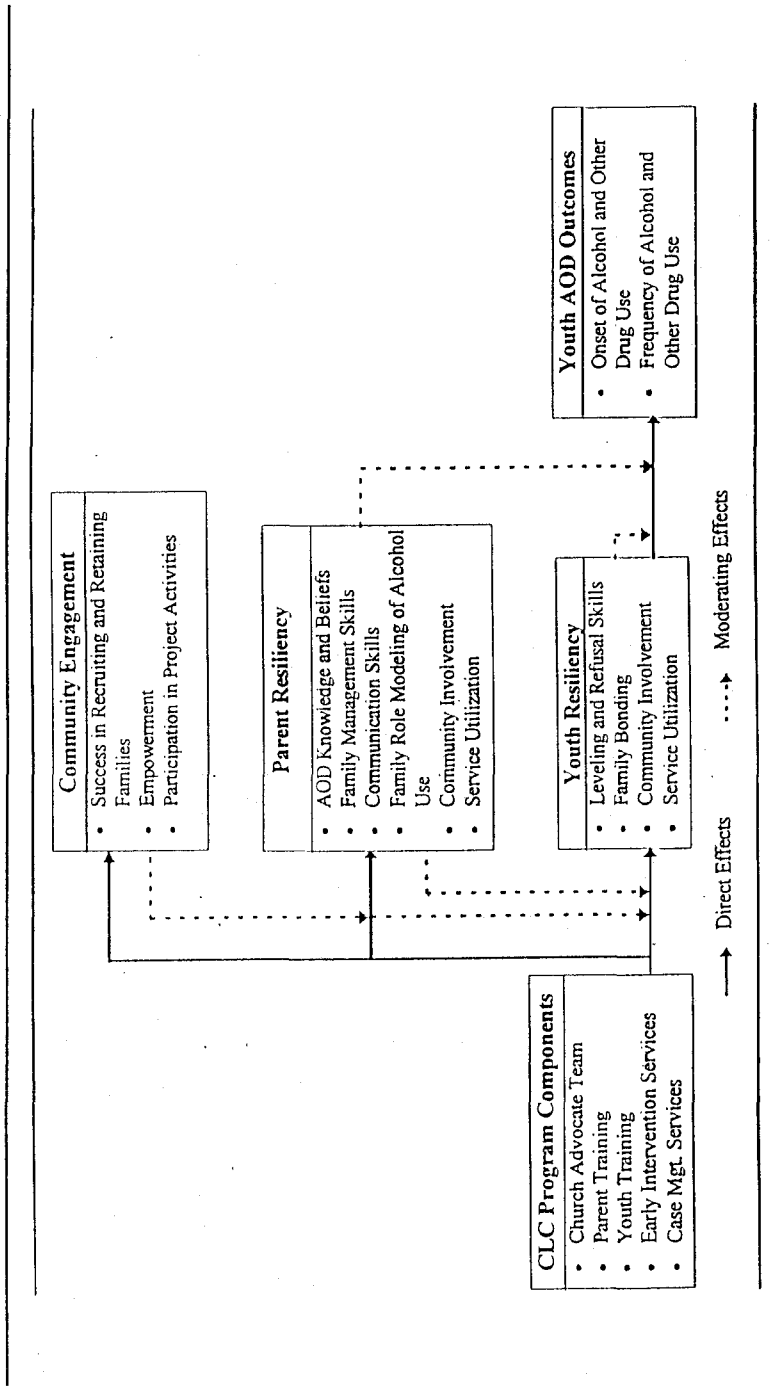

Figure 1. A conceptual view of the CLC alcohol and drug prevention model and its anticipated outcomes.

program components and proximal outcomes (resiliency factors) and incidence outcome (AOD use).

Three domains of resiliency factors known to be associated with AOD use among youth (i.e., community, family, and youth domains) were expected to be affected by the CLC program. Within the community domain, it was expected that Church Advocate Teams (CATs) would be successful in recruiting families for the CLC project and be empowered to participate in project implementation, including the retention of families in the program and the evaluation and continuing support of AOD prevention programming.

In the family domain, it was expected that the program would increase parents' (a) knowledge and beliefs about AOD issues that were consistent with the program message, (b) family management skills, (c) communication skills, (d) family role modeling of alcohol use, (e) self-reported involvement in community activities with their youth, and (f) use of community services when personal or family problems arose. These effects on family resiliency were posited to be produced directly and/or conditionally by the program, as church communities became more empowered to prevent alcohol and drug abuse.

The CLC program also was expected to increase the resiliency of youth by positively affecting their (a) leveling communication (a respectful and honest expression of thoughts and feelings) and refusal skills, (b) bonding with their family, (c) involvement with their parents in community activities, and (d) use of community services when personal and family problems arose. These effects on youth resiliency were posited to be produced directly and/or conditionally by the program, as church communities became more empowered to prevent AOD abuse, or as families increased their resiliency to prevent AOD use and abuse.

Finally, the CLC program was expected to delay onset and reduce frequency of AOD use among youth indirectly by increasing youth resiliency and conditionally by increasing family resiliency.

PROGRAM DESIGN

The CLC program design was composed of two integrative components that incorporated system- and client-level program strategies. This design highlighted wellness, health promotion, and resiliency factors, rather than pathology and a deficit orientation, to substance use and abuse prevention. The program, which spanned 1 year, was implemented in five church communities during the 5-year demonstration project.

System-Level Component

Within the system-level component, a strategy was used to mobilize communities (community domain) and to get them more involved with, and committed to, prevention/early intervention programming that targeted substance use and abuse among high-risk youth and their families. This entailed mobilizing church staff and community volunteers (who were members of the churches) in rural, suburban, and inner-city settings to advocate for substance abuse prevention services and alternative activities for high-risk youth. In particular, CATs were formed in the participating church communities to identify, recruit, and retain high-risk youth and their families in a 1-year program and its evaluation. The strategy consisted of five phases.

1. *Identification, recruitment, assessment, and selection of church communities.* Five steps were taken to recruit church communities into the CLC project: an initial letter and survey were sent to 132 churches; a readiness score was developed and used to guide in the selection of churches; an orientation meeting was conducted for all the churches that returned the survey and expressed an interest in CLC; an on-site visitation was arranged for those churches that continued to express an interest after the orientation meeting; and a final selection of 10 potential church communities was made.

2. *CAT formation and orientation.* The CLC program sought to create, orient, and train a cadre of volunteers (CATs) from the church community to act as advocates for high-risk youth and their families and to recruit and help retain those families in the CLC program. Another objective was to engage and empower the targeted church communities. A program orientation/recruitment meeting was held, which included an overview of the program, an explanation of the steps to implement the program, a discussion of the responsibilities of the CAT, an open discussion with questions, a call to join the CAT, and the scheduling of CAT training.

3. *CAT training.* CAT members participated in an 8- to 10-week training in which they received an accelerated version of the CLC training components. The training also examined personal and community attitudes regarding AOD use; helped them understand youth development and AOD use; introduced principles and content of parent/youth training; allowed the trainers to sensitize the curriculum for local cultural acceptability; and assisted in program planning and management.

4. *High-risk-family recruitment.* This phase involved each CAT developing and implementing its unique recruitment plan. Although CLC staff developed a prototype strategy, the plan was modified through input from the CATs to make it more effective for their local communities. Recruitment tasks and activities were identified and CAT members volunteered to carry out tasks based on a time-line model. CAT members were trained in identifying characteristics in individuals and families that would place them at high risk. CAT members were then instructed to recruit families at greatest risk without creating a stigmatic atmosphere. Effective recruitment plans used a "multiple hit" strategy (repeated exposure), recruitment scheduled during church events, endorsements from church leaders, multiple types of advertising, and especially, face-to-face recruitment. After this recruitment effort, parents/guardians were encouraged to attend a meeting to receive more information about the program, clarify issues, ask questions, and sign consent forms if they agreed to participate. Family participation required both parent/guardian and youth involvement. Based on COPES's previous experience in providing family training, a minimum of 12 and a maximum of 20 families were targeted for the actual program. Therefore, the minimum recruitment goal of 24 families was set to satisfy the requirements of the evaluation design.

5. *Program and evaluation retention activities.* Following the high-risk-family recruitment, the CAT members assisted in a variety of activities relating to program and evaluation retention, including (a) assisting in scheduling the training; (b) refining the strategy for presenting the training in their particular community; (c) scheduling evaluation interviews for all three waves; (d) preparing linkages for successful self-referrals/interventions to service providers; (e) maintaining contact with families throughout the project, including telephoning participants who were absent from a training session; and (f) planning and managing the program graduation celebration.

Client-Level Component

The client-level program component was composed of training modules for parents/guardians and youth, early intervention services for adults and youth, and follow-up case management services for families. Phase 1 focused on the parents/guardians and the family environment (family domain). Phase 2 shifted attention to the high-risk 12- through 14-year-old youth (individual domain). Phase 3 provided follow-up case management services to families to connect them to community resources and activities. Early intervention services were provided throughout Phases 1 through 3.

Parent/guardian and youth training modules. Training of parents and guardians was extensive. One module, AOD Issues Training, focused on substance abuse knowledge and issues over a 12- to 16-hour period, depending on group progress. It included the history of substance abuse prevention programs, an examination of personal and group beliefs about AOD issues, and an in-depth look at the dynamics of chemical dependency and its effects on families. The curriculum was developed by COPES's staff between 1978 and 1988 from various sources (research, training, and observation), including the successful school-based training called CASPAR Alcohol Education Program (1986).

Parents and guardians also participated for 16-20 hours in a second training module, Not My Child, which asked participants to examine their family's planning skills to better develop and implement expectations and consequences for their children in all areas of interest and concern. The curriculum of this training module highlighted principles of inclusion, acceptance, understanding, respect, and autonomy.

A third training module, Straight Communications Training, provided opportunities for parents and youth to explore and practice various communication styles during role-plays. First, parents and youth met for 8 to 12 hours among their respective peer groups and then parents and their adolescents met to practice communication skills. To get youth to attend the first training session, in addition to parental persuasion tactics, the CLC staff convened family-oriented social activities (e.g., picnic or recreational activity) to begin building relationships with youth and to encourage their participation. The Straight Communications Training was adapted from the Say It Straight program developed by Paula Englander-Golden (Englander-Golden, Elconin, & Miller, 1985; Englander-Golden et al., 1986), which was based on the work of Satir (1983).

Early intervention and follow-up case management services. It was recognized that a key component of fostering resiliency—a caring and supportive environment—would be an ongoing support system for program family members. Therefore, early intervention, follow-up consultation, and continuing support from project staff were provided for all program participants for at least 1 year. Intervention services, which entailed problem assessment and treatment/referral plan development, were made available to families who were identified by CLC staff, or self-referred during and after the training.

Follow-up case management services consisted of bimonthly telephone consultations and/or personal home visits with referral service to family participants in need of support. A case manager on the project provided these

services for approximately 5 to 6 months following completion of the parent and youth training.

EVALUATION METHODS AND PROCEDURES

The outcome evaluation of the CLC program emphasized the use of multiple methods and designs to test hypotheses about the expected effects of the program on three domains of resiliency factors (i.e., community, family, and youth domains) and the use of AOD among high-risk youth. Both quantitative and qualitative data were collected to measure a set of outcomes that corresponded to program objectives. The data analysis exceeded traditional analyses, in that both direct and moderating effects of the CLC program were examined for short-term gains (6-7 months) and sustained gains (1 year).

Hypotheses

Nine hypotheses were formed and eight were empirically tested: Three hypotheses addressed direct program effects on family and youth resiliency, three addressed moderating effects on resiliency, and three addressed moderating and mediating effects on AOD use among youth. It was determined during the analysis stage that Hypothesis 8, which addressed mediating effects, could not be tested because the necessary conditions to conduct the analysis were not present. That is, the program had to significantly affect a particular mediator (e.g., youth communication skills) and that mediator had to be significantly related to alcohol use. As an alternative, an ex post facto Hypothesis 9 was formulated and tested in the model respecification stage.

Specific hypotheses for the effects of the CLC project were as follows.

Direct Effects

1. Engage church communities through CATs to (a) implement a successful family recruitment strategy, (b) be empowered to successfully implement the program and its evaluation, and (c) participate in program and evaluation retention and replication efforts.
2. Increase the AOD resiliency of parents in the short term and sustain these positive effects through case management services during the follow-up phase of the program, as compared to a comparison group.

3. Increase the AOD resiliency of youth in the short term and sustain these positive effects on youth resiliency by case management services through the follow-up phase of the program, as compared to a comparison group.

Moderating Effects on Family and Youth Resiliency

4. Increase the AOD resiliency of parents in the program group as church community empowerment and participation ratings increase after the follow-up phase, in comparison with overall increased ratings.
5. Increase AOD resiliency of youth in the program group as church community empowerment and participation ratings increase after the follow-up phase, in comparison with overall increased ratings.
6. Increase AOD resiliency of program group youth as family-level AOD risks decrease and resiliency increases after the training and follow-up phases, in comparison with overall family-level AOD risk and resiliency changes regardless of group assignment.

Moderating and Mediating Effects on AOD Use Among Youth

7. Reduce AOD use of youth as family-level AOD risks decrease and family-level resiliency increases after the training and follow-up phases, in comparison with overall family-level AOD risk and resiliency changes regardless of group assignment.
8. Produce positive mediating effects on AOD use of youth through an increase in the AOD resiliency of youth and maintain these positive mediating effects through the follow-up phase of the program.
9. Reduce AOD use of youth as youth-level AOD risks decrease and youth-level resiliency increases after the training and follow-up phases, in comparison with overall youth-level AOD risk and resiliency changes regardless of group assignment.

Evaluation Design, Data, and Analysis

Two evaluation designs were used to test the hypotheses. The study design for determining program effects on church community engagement (Hypothesis 1) was an adequacy of performance design using record data, the assessments of an expert consultant, and program staff as shadow controls (Rossi & Freeman, 1993; Suchman, 1967). This design, although known to be less desirable, is appropriate when the sample size is too small for a statistical analysis and when gross effects can be presumed to be the same as the net effects.

In conjunction with this design, record data were maintained on family recruitment success, and unstructured telephone interview data were collected retrospectively from all church communities during the last year of the project. Three single indicators of community engagement were constructed for the outcome analysis: (a) successful family recruitment was measured by the percentage of recruitment goal (i.e., COPES goal of 24 families divided into the actual number of families recruited in each church community); (b) empowerment and church community participation were measured by ratings on a scale of 0-4, which were made by a trained ethnographer and program staff both during and after the program; and (c) when church community empowerment and participation were used to examine community-level moderating effects, the two ratings were summed to form both during and after empowerment/participation measures.

To assess program effects on family and individual youth outcomes (Hypotheses 2 through 9), a randomized block design with repeated measures was implemented successfully using some of the guidelines for implementing randomized field experiments that have been advocated by Dennis and Boruch (1994). With the church community as a blocking variable, families who were recruited by CATs to participate in the CLC program and/or evaluation were assigned randomly to a program or comparison group in five church communities. Minimal violation of independence assumptions within families with two or three youth participants was found when the effects of intrafamily correlation on the outcome measures were assessed (Kenny & Judd, 1986). A comparison of the program and comparison groups on key individual-, family-, and community-level characteristics found no statistically significant differences between the two groups of parents and youth.

The design called for data to be collected at three points in time: Wave 1, before program initiation; Wave 2, after parent and youth training (6 to 7 months later); and Wave 3, after the follow-up case management services were delivered (1 year after initiation). From each family assigned to the program and comparison groups, one parent or guardian (usually the mother) and youth (who were 12 through 14 years of age at any time during program implementation) were interviewed and administered questionnaires. Interview and questionnaire items came from a standardized battery of AOD items and psychosocial items from the Personal Experience Inventory (PEI), which was developed by the Chemical Dependency Adolescent Assessment group in St. Paul, Minnesota (Winters & Henly, 1989), and a battery of leveling communication skill items developed by Englander-Golden and Satir (1990). Most of the interview items for parent and youth risk and resiliency were developed by the social development group headed by Hawkins and Catalano at the University of Washington. In total, data from 97 parents (program group = 49; comparison = 48) and 120 youth (program group = 59; comparison = 61), each of whom completed all three interviews, were used in the final analysis.

The construction of reliable and valid measures within the family and youth domains incorporated several methods. Scales were required for sets of observed variables (i.e., interview or questionnaire questions) that were assumed to be the effect of some latent construct (e.g., parental communication behavior); therefore, the observed variables in such instances should be interrelated. When the latent construct (e.g., parent community involvement with their youth) was the cause of the observed variables, an index was constructed that consisted of a count of the observed variables (Bollen, 1989). In the case of an index, the observed variables are not expected to be correlated.

For measures that required scale construction and were not part of a standardized instrument, exploratory factor analysis and item analysis procedures were used at Wave 1, and a confirmatory analysis, which centered on replicating Wave 1 results, was conducted at Waves 2 and 3. A composite measure was constructed for sets of items with alpha reliabilities of .60 and above for all three waves. Indexes, which simply were counts, were constructed based on content. (See Johnson et al., 1995, for the details of the validity and reliability checks.) Selected standardized measures (psychosocial scales, testing bias scales, and AOD indexes), which were part of the PEI, were used with permission of Winters and Henly.

The analysis strategy for the outcome evaluation consisted of three stages. First, an extensive attrition analysis was conducted involving individual and family characteristics, risk and resiliency factors from the family and youth domains, and AOD use measures among youth (Hansen, Collins, Malotte, Johnson, & Fielding, 1985). This analysis revealed that there was no evidence of differential attrition, but panel attrition bias was uncovered and corrected for in the final analysis stage using procedures described in Graham and Donaldson (1993).

Second, program impact on community-level outcomes was assessed by an analysis of family recruitment data that measured recruitment success and interview data collected by an ethnographer that captured the extent of empowerment and participation of CAT members in program and evaluation activities (Deutsch, 1994). Adequacy of performance was determined by the ethnographer by (a) comparing the number of families recruited to the stated recruitment goal and (b) comparing empowerment and participation ratings to a priori program staff expectations, which were based on previous experience in community mobilization. Ratings for CAT empowerment and participation were assigned during and toward the end of program implementation.

These two ratings were combined to form a church community engagement measure, which was used in testing the moderating hypotheses.

Third, analysis of covariance with and without repeated measures procedures were used to produce the outcome evaluation results concerning families and youth (Barcikowski & Robey, 1994; SPSSX, 1991). For outcomes with repeated measures, the overall direct effects were produced by a two-between and one-within ($2 \times 5 \times 3$ split plot) with constant and varying covariates design. The two between factors were group (1,2) and church communities (1,5), and the within factor was wave (1,3). Church community was used as a blocking variable to control for site difference rather than as a substantive factor in the design. The Group × Church × Wave interaction degrees of freedom were pooled into the within-error term. For outcomes with only Wave 3 measures, the within factor was not present, thereby reducing the design to a two-between (2×5) with constant covariates.

In addition to overall direct effects, within-church community direct effects were produced by modifying each of the procedures previously discussed to include a SPSS MANOVA command to test for the mean differences between the program and comparison groups on outcomes within each of the five church communities. Because the possibility of a Type II error was increased because of low statistical power resulting from a reduced number of participants in each of the five church communities, these results were interpreted with caution.

It should be noted that the SPSS MANOVA repeated measures procedure cannot be used to test for the short-term (Wave 2-Wave 1 contrast) and sustained (Wave 3-Wave 1 contrast) effects simultaneously because the sustained effect was a cumulative (i.e., nonorthogonal contrasts), not an additive effect (Nichols, 1991). Therefore, the data were analyzed using univariate procedures. Because there was no pooling of error terms for the Wave 2-Wave 1 contrast and Wave 3-Wave 1 contrast, and no circularity assumption to meet, a *t*-test statistic was used to determine significance for each of the two contrasts independent of each other.

Moderating effects were produced by an analysis that compared the relationship of a third variable (e.g., youth involvement in setting AOD use rules); and an outcome (e.g., frequency of alcohol use) among youth who were exposed to the CLC program, with the relationship of the same two variables for the entire sample regardless of group assignment. These effects are conditional nonadditive effects produced by community-level, family-level, and youth-level resiliency factors that previous research has shown are contributing factors to youth resiliency or AOD use. That is, the program directly may not affect a targeted outcome, but it may affect the outcome in relation to a third variable.

Hypothesized moderating effects were examined by constructing unique interaction terms involving the group factor and various risk and resiliency factors. These interaction terms, which were constructed by multiplying the group factor (program = 1, comparison = 0; recoded variables) times the group mean-centered moderator variable, were entered into a MANCOVA program as additional covariates (interaction effects) along with the corresponding moderator variable (direct effect). A *t* test was used to determine the statistically significant difference between the slope of the regression line of the program group with the regression line of the moderator variable regardless of group assignment.

Statistical significance was determined by testing directional hypotheses using a two-tailed test of significance (alpha = .10), which is equivalent to a one-tailed test at the .05 level of significance. Short-term and sustained effects were assessed in analyses involving repeated measures, but only sustained effects could be examined in analyses where there were only Wave 3 outcome measures. (See Johnson et al., 1995, for more details about the analysis strategy.)

RESULTS AND DISCUSSION

The outcome evaluation for the CLC project produced results that tested the eight hypotheses. These results concerned short-term effects that occurred at the completion of parent and youth training about 6 months into the program and sustained effects that occurred after the follow-up case management services, 1 year from the beginning of the program. They are discussed according to program effects on community engagement, family resiliency, youth resiliency, and alcohol use.

Community Engagement

Table 1 presents results about the CLC program's sustained effects on the family recruitment success of CATs. Seven attempts were made to implement the program, which required the recruitment of a minimum of 24 families at each site (12 assigned to the program group and 12 assigned to the comparison group). The program was fully implemented six times among five sites. (One site fully implemented the program two times, yet the second implementation

TABLE 1: Success Rate of Family Recruitment for the Creating Lasting Connections Project by Program Cycle and Church Advocate Team (CAT)

Cycle/ SITE	Church Community Profile	No. of CAT Members	Family Goal	Recruitment Actual	Percentage of Goal
Cycle 1					
1	Urban/African American/ 1 church	15	24	3	13
2	Suburban/White/1 church	10	24	39	163
3	Rural/White/6 churches	11	24	38	158
Cycle 2					
4	Rural/White/1 church	8	24	31	129
5	Suburban/White/1 church	8	24	28	117
Cycle 3					
6	Urban/African American/ 3 churches	18	24	26	108
4	Suburban/White/1 church[a]	8	24	24	100

a. The program was implemented in this church community in program Cycle 2 and in Cycle 3, 1 year later.

TABLE 2: Ratings of Empowerment and Participation of the Church Advocate Teams During and After Completing the Creating Lasting Connections Project by Church Community

	During		After	
Church Community[a]	E[b]	P[b]	E	P
1	2.5	2.5	3	2.5
2	3.5	3	1	2
3	2.5	3	3.5	3.5
4	3	3	4	4
5	2.5	2.5	4	4

NOTE: E = empowerment (i.e., self-efficacy/commitment); P = participation.
a. Only church communities that successfully implemented the experimental design are included.
b. Rating of 0-1 = low; 2-3 = moderate; 4 = high empowerment or participation.

data were not included in the outcome evaluation to avoid problems associated with contamination.) Only one site failed to recruit the minimum number of 24 participating families for implementation. Failure to meet the recruitment goal in one church community may have been due to the CAT's decision to recruit families based on community need in a nearby public housing project rather than among the congregation in general.

Table 2 presents the ratings of church community empowerment and participation by the outside ethnographer and program staff. These results show that three church communities (3-5) showed improvement in their

ratings of empowerment and participation. The ratings of another church community (1) improved slightly for level of empowerment, but its participation rating remained the same. Finally, the empowerment and participation ratings of one church community (2) decreased.

The program staff offered an explanation of why one church community did not sustain its earlier level of empowerment and participation after the CLC program: First, this church community site was composed of six church congregations that formed a coalition for the CLC project. Empowerment and participation may have been more difficult to sustain because there was no formal interorganizational mechanism for communicating and disseminating information after the project had ended. A second reason may have been that the CAT leader, who had played a central role in building and maintaining the coalition during the first 9 months of the project, was transferred out of state. As a result, no one stepped in as the CAT leader for the remaining 3 months. The fact that the CAT role in the follow-up case management component of the program was not well defined primarily may explain why the CAT, without the leader, lost some of its earlier momentum.

The adequacy of performance assessment by the outside expert and program staff found that, overall, CAT recruitment efforts, empowerment, and participation were considered adequate. Accordingly, the CLC program accomplished its community-level objective and, therefore, Hypothesis 1 was confirmed.

Family and Youth Resiliency

The analysis produced three types of results that were used to determine program effects on family and youth resiliency: overall direct, within-church community direct, and moderating effects. Hypotheses 2 through 6 expressed program expectations regarding the effects on resiliency outcome measures.

Direct Effects

Results presented in Tables 3 and 4 display the direct effects of the CLC program on family and youth resiliency outcomes. Table 3 results are overall statistically significant mean differences between groups when outcome measures were only obtained at Wave 3. The results in Table 4 are presented in the form of overall mean differences of resiliency outcomes between Wave 2 and Wave 1 (short-term effects) and Wave 3 and Wave 1 (sustained effects) within the program and comparison groups. Statistically significant within-church community direct effects are mentioned in the text but not presented in tables.

TABLE 3: Means and Statistically Significant Group Differences on Parent and Youth Resiliency for Program and Comparison Groups at Wave 3 Only

	Program Group Mean (n = 59)	*Comparison Group Mean (n = 61)*	*Group Differences* p
Parent outcome			
Parents' community involvement with youth[a]	2.53	2.90	.28
Parents' community service use[b]	1.17	.75	.06†
Parents' action[b]	1.08	.67	.05*
Parents' perceived helpfulness[b]	.98	.56	.04*
Youth outcome			
Youths' community involvement with parents[a]	2.37	3.23	.25
Youths' service use[c]	.75	.51	.001***
Youths' action[d]	.53	.43	.001***
Youths' perceived helpfulness	.44	.26	.001***

NOTE: The values listed for each outcome under the group differences column are the significance levels associated with the *F* test that show there is a mean difference between the program and comparison groups.
a. Covariate: stressful life events.
b. Covariate: family income.
c. Covariate: defensiveness.
d. Covariate: age.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

These results show that Hypothesis 2 was partially confirmed. Table 3 shows that there were statistically significant overall sustained gains reported both by parents and youth for more use of community services among participating families with personal and/or family problems than there were for parents in the comparison group. Further, program participants reported that they took more action based on the service contact and that the action proved to be more helpful than the comparison group reported.

In terms of direct effects of the CLC program on AOD knowledge and beliefs that were communicated in the program, Table 4 shows the achievement of statistically significant short-term (i.e., Wave 2-Wave 1 differences) and sustained (Wave 3-Wave 1 differences) gains. The program also directly improved participating parents' family management practices relating to parents' involvement of youth in AOD rule setting. The program had, in part, an overall statistically significant positive effect on parents' communication with their youth. Evidence showed that the program realized a short-term gain in increasing parents' reported communication with youth, but this

TABLE 4: Program Effects on Parent and Youth Resiliency Outcomes by Wave Mean Differences for Short-Term and Sustained Effects: Results of Repeated Measures ANCOVA

	Short-Term Effects			*Sustained Effects*		
Outcome	*Program Group X Difference*	*Comparison Group X Difference*	p	*Program Group X Difference*	*Comparison Group X Difference*	p
Parent resiliency						
AOD knowledge and beliefs[a]	2.70	.10	.00***	2.02	−.82	.00***
Family meeting practices	3.98	3.65	n.s.	4.28	.84	n.s.
Family rules about ATOD	.35	.40	n.s.	.30	.18	n.s.
Family rules about non-AOD youth behavior	.35	.75	n.s.	.23	−.04	n.s.
Youth involvement in setting AOD rules	1.07	−.07	.00***	.90	.46	.06†
Youth involvement in setting non-AOD rules[b]	1.04	.87	n.s.	.78	−.02	n.s.
Family communication: parent report	.62	.37	.06†	.56	.35	n.s.
Family communication: youth report[c]	.52	.76	n.s.	1.04	0	n.s.
Parents' frequency of alcohol use	−.35	.02	n.s.	−.58	−.85	n.s.
Parents' quantity of alcohol use	−.02	−.18	n.s.	−.33	−.15	n.s.
Parents' frequency of AOD use	−.64	−.03	n.s.	−.57	−.89	n.s.
Youth resiliency						
Leveling about AOD use[def]	−1.10	.03	n.s.	−.29	.50	n.s.
Leveling with close friends[ef]	.58	−.16	n.s.	1.09	.44	n.s.
Leveling about schoolwork[def]	−.50	−.83	n.s.	−9.90	−.57	n.s.
Bonding with mother: parent report	−.26	.03	n.s.	.02	0	n.s.
Bonding with mother: youth report[bef]	.53	0	.08†	.56	−.08	.07†
Bonding with father: youth report[ef]	−.05	1.14	n.s.	.38	1.07	n.s.
Bonding with siblings: parent report	−.32	−.52	n.s.	−.20	−.14	n.s.

NOTE: ANCOVA = analysis of covariance; AOD = alcohol and other drugs. The *n* for the ANCOVA model varies from 85 to 97 for family- or parent-level outcomes and from 114 to 120 for youth-level outcomes.
a. Covariate: number of people living in the home.
b. Covariate: number of changes in school.
c. Covariate: stressful life events.
d. Covariate: AOD availability.
e. Covariate: religiosity.
f. Covariate: defensiveness.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

finding was not confirmed by the youths' reports of parent communication with them. There also was evidence in the within-church community analysis that the program produced both statistically significant short-term gains and sustained gains in family (both parents) frequency of alcohol use in an African American church community, but there were no overall direct effects found even when examining the direct effects on frequency and quantity of alcohol use and combined alcohol and other drug use measures.

There was no evidence that the program had any positive direct effects on participating families' involvement in community activities (Table 3). Instead, the within-church community analysis showed that the program actually reduced the involvement of parents in community activities with their children in several church communities. This overall "no program effect" or within-church community "adverse effect" may have been due to the length of the training, which varied across church communities, from 19 to 26 weekly sessions for parents and from 5 to 11 weekly sessions for youth. Participation in the training may have reduced the amount of free time available for program parents to participate with their youth in other community activities. Further, the program's positive effects on increasing use of community services also may have taken away from involvement in other community activities.

Another reason may be because the program strategy to get parents and youth involved together in community activities was not implemented to its full potential. According to the program director, there was a module in the CAT training designed to get CATs involved in linking parents and youth to community activities. Also, a parent training module was included, which was intended to model the types of social events in which parents and their youth might participate together. In retrospect, the staff assessment indicated that these program activities were designed loosely and there was no follow-up.

The program also had no effect on family management practices relating to the extent of use of family AOD rules and had an adverse effect on the extent of use of non-AOD rules (i.e., rules that are intended to set expectations for other behaviors for which youth need some direction by parents; see Table 4). Further, there was no program effect on youth involvement in setting non-AOD rules and the extent of use of family meeting practices as advocated by the program.

The lack of effect on the use of family AOD rules may have been due to a ceiling effect, in which the extent of use was quite high both for the program and comparison groups. The unanticipated effect regarding use of non-ATOD rules may have been due, according to the program staff, to the program emphasizing the setting of rules for AOD use much more than for non-AOD

youth behavior. No effect on the use of family meeting practices advocated by the program may be due to the difficulty of getting families to meet regularly and discuss problems as a group or formally plan family activities.

The direct effect results only partially confirmed Hypothesis 3, which pertains to program effects on youth resiliency factors, including youths' leveling communication, bonding with family members, community involvement with parents, and use of community services for personal or family problems. The strongest program effect on youth resiliency was the use of community services when personal or family problems arose (Table 3). Overall, the program produced strong sustained effects in youth use of community services, action taken after use, and perception of helpfulness.

Program youth also reported increased bonding with their mothers in the short term and through the follow-up phase of the program (Table 4). Although not as conclusive as overall effects, some evidence was found in the within-community analysis that there were statistically significant direct program effects on increased youth bonding with father and siblings and increased leveling communication with close friends in selected church communities.

Contrary to program expectations, the program had no direct effect on youth leveling communication about AOD use and schoolwork, parents' reported youth bonding with them, and youth involvement with their parents in community activities. However, as will be reported later, community and family resiliency factors moderated program effects on these three youth resiliency outcomes.

Moderating Effects

Community engagement as a moderator. Hypotheses 4 and 5 concerned program expectations about the role of community resiliency factors in enhancing the overall program effect on family and youth resiliency. Table 5 presents the statistically significant moderating effects of church community engagement as measured by ratings of CAT empowerment and participation in the CLC project during the program and shortly after the program ended.

It was found that church community engagement moderated the program's overall effect on reducing parents' quantity of alcohol use. That is, the CLC program reduced parents' quantity of drinking in relation to increases in engagement of church community CATs during the program. Further, the CLC program had a significantly greater effect (statistically) on parents' reported communication with their youth as the ratings of church community engagement were more positive. This result reinforces the earlier finding

TABLE 5: Statistically Significant Program Moderating Effects on Parent and Youth Resiliency Outcomes as Church Community Engagement Increased: Comparison of Ratings During and After the Project

Outcomes	Program × Moderator (moderating effect) Beta	p
Parent resiliency		
Family communication: parent report	.41	.001***
Parents' quantity of alcohol use	−.27	.07†
Youth resiliency		
Bonding with mother: parent report	.26	.04*
Bonding with mother: youth report[abc]	.26	.04*

NOTE: The *n* for the ANCOVA model varies from 85 to 97 for family- or parent-level outcomes and from 114 to 120 for youth-level outcomes.
a. Covariate: number of changes in school.
b. Covariate: religiosity.
c. Covariate: defensiveness.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

regarding the program's positive direct effect on parents' report of their communication with their youth.

Church community engagement also moderated the CLC program effects on youth bonding with mother (parents' and youths' reports). More parents and youth in the program group than in the comparison group reported an increase (statistically significant) in positive youths' bonding with mother in those communities that increased their engagement in AOD prevention activities in comparison with the level of engagement in other church communities.

Family resiliency as moderators. Table 6 presents the statistically significant results that show the moderating effects of family resiliency factors. For the most part, these results confirm Hypothesis 6.

There was evidence that the program increased youths' leveling communication. First, although there was no direct program effect on leveling about AOD use, increases in leveling about AOD use among program group youth in the short term were associated with decreases in parents' frequency of alcohol use. In terms of sustained gains, both increased parents' report of community involvement with youth and parents' report of declining conflict with their youth enhanced program effects on leveling about AOD use.

Second, the program produced positive short-term effects on leveling communication with close friends as parents' likelihood of punishing youth for misconduct increased, and sustained positive effects as changes occurred in parents' use of family rules about non-AOD youth behavior increased. Third, in terms of leveling communication about schoolwork, the program

TABLE 6: Statistically Significant Program Moderating Effects on Youth Resiliency Outcomes as Family Resiliency Increased After the Training (short-term) and Follow-Up (sustained) Phases of the Program

Youth Outcome	Short-Term Moderating Effect Beta	p	Sustained Moderating Effect Beta	p
Leveling about AOD use[acd]				
Parents' frequency of alcohol use	−.21	.09†	−.22	.12
Parents' community involvement with youth	—[e]	—[e]	.20	.09†
Conflict between parent and youth	−.05	.69	−.21	.09†
Leveling with close friends[cd]				
Family rules about non-AOD youth behavior	.23	.09†	.08	.57
Parent likely to punish misconduct	.26	.07†	.11	.49
Leveling about schoolwork[acd]				
Youth involved in setting non-AOD rules	.28	.05*	.00	.99
Parents' quantity of smoking	.48	.01**	.19	.31
Family meeting practices	−.32	.04*	.01	.92
Bonding with mother: youth report[bcd]				
Parent likely to punish misconduct	.23	.10†	.07	.67
Family communication: youth report	.00	.97	.25	.09†
Bonding with mother: parent report				
Family rules about non-AOD youth behavior	−.24	.05*	−.25	.21
Youth involvement in setting AOD rules	−.26	.05*	−.07	.58
Family communication: youth report	.01	.93	−.25	.10†
Family conflict	.21	.10†	.20	.16
Family pathology	.11	.47	.42	.02*
Bonding with siblings: parent report				
Parent likely to punish misconduct	.00	.98	.42	.02*
Family conflict	−.13	.33	−.32	.02*
Family meeting practices	−.20	.24	−.30	.02*
Youths' community involvement with parents				
Parents' action	—[e]	—[e]	.23	.10†
Parents' perceived helpfulness	—[e]	—[e]	.27	.07†

NOTE: AOD = alcohol and other drugs; — = missing value. The *n* for the ANCOVA model varies from 85 to 97 for family- or parent-level outcomes and from 114 to 120 for youth-level outcomes.
a. Covariate: AOD availability.
b. Covariate: number of changes in school.
c. Covariate: religiosity.
d. Covariate: defensiveness.
e. Wave 3 only.
†$p < .10$; *$p < .05$; **$p < .01$.

produced positive short-term effects as parents' involvement of youth in setting non-AOD rules increased.

Also, there were several family-level moderating effects on youths' bonding with mother and siblings. The program produced statistically significant

increases in youths' reported bonding with mother in relation to increased likelihood of parents to punish for misconduct. In addition, increased youths' reported bonding with mother among the program group also was related to increased positive family communication reported by parents. Youths' bonding with siblings, as reported by parents, increased (sustained effect) as the likelihood of punishment for misconduct increased and family conflict decreased in the short term. The program did not advocate punishment per se, but rather pushed for parents to be clear about expectations and consequences of AOD use and other misconduct, with punishment being one of a number of viable consequences. This and other moderating findings indicated that parents may have translated the program message about consequences into punishment that had a deterring effect on program youth who had never used alcohol or other drugs. Unfortunately, the evaluation only tapped parents' feelings about the use of punishment as a negative consequence; positive consequences that reflect wording consequences as positives, rather than as negatives, were not measured.

Although there was no positive direct program effect on youths' community involvement with their parents reported earlier, it was found that the program had a positive moderating effect on this outcome as parents reported taking more action when using community services for personal or family problems. This positive moderating effect was enhanced as youth reported increased helpfulness from using community services.

Several moderating effects involving family resiliency were found that were unanticipated. First, the program produced positive effects on youths' leveling about schoolwork in the short term in relation to parents' reported increases in the quantity of smoking and decreases in parents' reported use of family meeting practices advocated by the program (Table 6). Second, positive program effects on parents' report of bonding with mother were found in the short term as parents reported (a) decreases in the number of family rules that parents set about non-AOD youth behavior, (b) decreases in the involvement of youth in setting AOD rules, (c) increases in family conflict reported by parents, and (d) increases in family pathology or dysfunctioning reported by youth. Further, the program produced positive sustained gains in parent-reported bonding with mother as youth reported decreases in family communication.

Program Effects on Alcohol Use

Traditionally, when evaluating the direct effects of prevention programs on AOD use among youth, finding "no program effects" has been the rule rather than the exception, especially when the program length has been 1 year or less. Given the convincing evidence in the literature, the CLC program designers decided not to formalize an a priori direct effect hypothesis. Instead, it was hypothesized that the program would produce moderating (Hypotheses 7 and 9) and mediating (Hypothesis 8) effects on alcohol use. (Consistent with most previous research, the CLC outcome evaluation did not find any positive direct effects on a variety of standardized AOD use measures.)

Family Resiliency Moderators

There is strong evidence to support the moderating effects of family-level resiliency on AOD use among youth. In Table 7, the analysis, using multiple-outcome indicators, shows that the onset of AOD use was delayed among youth of the program group for 1 year (i.e., a sustained gain) as parents (a) increased AOD knowledge and beliefs consistent with program content, (b) decreased conflict between parent and youth as reported by youth, and (c) increased the likelihood of punishing youth for AOD use.

There were short-term and sustained gains in reducing the frequency of AOD use at 3- and 12-month intervals. In the short term, the program produced more reduction in alcohol use as parents (a) increased program-advocated AOD knowledge and beliefs, (b) decreased their quantity of smoking tobacco products, and (c) decreased their likelihood of punishing youth for misconduct. Regarding a reduction in other drug use in the short term, statistically significant moderating effects were found as parents (a) increased youths' involvement in setting non-AOD family rules, positive family communication, and their self-image; (b) decreased their frequency of alcohol use; and (c) decreased family conflict and family pathology (youths' reports).

Sustained gains in reduction of alcohol use were realized as parents (a) increased program-advocated AOD knowledge and beliefs, (b) decreased their likelihood of punishing youth for misconduct, (c) used more community services when a personal or family problem arose, and (d) decreased family pathology. The program also produced a reduction in the frequency of other drug use as parents involved their youth more in setting non-AOD family rules and decreased family pathology.

The moderating effect of the likelihood of punishment for AOD use and other misconduct on frequency of alcohol use is in the opposite direction than its effect on delayed onset. Whereas the earlier finding indicated that parents may have relied more on punishment to deter youth from using alcohol for the first time, the latter result regarding frequency of alcohol use indicated that parents may have translated the program message about consequences

TABLE 7: Statistically Significant Program Moderating Effects on AOD Use as Family Resiliency and Risks Increased After the Training (short-term) and Follow-Up (sustained) Phases of the Program

Youth Outcome	Short-Term Moderating Effect		Sustained Moderating Effect	
	Beta	p	Beta	p
Onset of alcohol use[ad]				
AOD knowledge and beliefs	−.24	.13	−.36	.04*
Family communication: parent report	.15	.37	.30	.05*
Conflict between parent and youth	.09	.46	.34	.01*
Family estrangement: youth report	−.06	.67	−.27	.08†
Onset of AOD use[ad]				
AOD knowledge and beliefs	−.24	.14	−.38	.03*
Conflict between parent and youth	.03	.79	.25	.05*
Likely to punish AOD use	−.04	.81	−.30	.08†
Family estrangement: youth report	−.04	.78	−.26	.10†
Frequency of alcohol use over 3 month[abcd]				
AOD knowledge and beliefs	−.20	.18	−.30	.08†
Likely to punish AOD use	.21	.19	.32	.05*
Family pathology	−.18	.24	.35	.03*
Family service use: parent report	—[e]	—[e]	−.24	.05*
Parents' action	—[e]	—[e]	−.27	.04*
Parents' perceived helpfulness	—[e]	—[e]	−.31	.03*
Frequency of alcohol use over 12 month[acd]				
AOD knowledge and beliefs	−.26	.08†	−.19	.25
Parent likely to punish misconduct	.30	.03*	−.02	.91
Family pathology	−.17	.31	.48	.00***
Frequency of drug use over 12 month[abc]				
Youth involvement in setting other rules	−.24	.07†	−.26	.06†
Family communication: youth report	−.26	.04*	−.00	.10†
Parents' quantity of smoking	.30	.08†	.25	.16
Parents' frequency of alcohol use	.28	.02*	.13	.38
Family conflict	.33	.00***	.12	.39
Parent self-image	−.22	.01**	−.07	.60
Family pathology .24	.02*	.42		.01**

NOTE: AOD = alcohol and other drugs; — = missing value. The *n* for the ANCOVA model varies from 85 to 97 for family- or parent-level outcomes and from 114 to 120 for youth-level outcomes.
a. Covariate: AOD availability.
b. Covariate: number of changes in school.
c. Covariate: religiosity.
d. Covariate: defensiveness.
e. Wave 3 only.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

into positives emphasizing less punishment when dealing with youth already drinking.

A number of family-level risk factors, although not targeted by the program, were found to moderate reduced frequency of AOD use. These included (a) decrease in quantity of parents' smoking, conflict in the family, conflict between youth and parents, family estrangement, and family pathology and (b) increased parents' self-image.

One unanticipated result was that as parents reported increased positive communication with their youth, the prevalence of alcohol use among youth was higher in the program group, in comparison with increased positive communication and bonding in general. These results may be because of the known dynamics of denial in families in which AOD use problems exist. Parents may have overreported positive communication with their youth to compensate for feelings of inadequacy in handing alcohol and drug use problems.

Youth Resiliency Moderators

There also was strong evidence to support youth-level moderating effects in frequency of alcohol use, but not in delayed onset (Table 8). It was found that in the short term, the frequency of alcohol use was reduced among youth of the program group as (a) youth increased leveling about schoolwork, (b) youth reported increased bonding with mother, and (c) parents reported increased bonding among siblings. In terms of sustained gains, the frequency of alcohol use was reduced among youth in the program group as youth (a) increased leveling communication about AOD use and bonding with father and (b) decreased the rejection of conventional values.

The same set of youth resiliency factors moderated favorable program short-term and sustained effects on frequency of other drug use. Frequency of other drug use reduced as (a) youth reported an increase in leveling communication about AOD use and schoolwork and a decrease in the rejection of conventional values and (b) parents reported youths' increased bonding with father.

The only unanticipated result concerned alcohol use and parents reported bonding with mother. As parents reported increased youth bonding with mother, prevalence of alcohol use in the short term was higher in the program group in comparison with increased bonding in general. In terms of sustained loss, increases in frequency of AOD use occurred in the program group as

TABLE 8: Statistically Significant Program Moderating Effects on AOD Use as Youth Resiliency and Risks Increased After the Training (short-term) and Follow-Up (sustained) Phases of the Program

	Short-Term Moderating Effect		*Sustained Moderating Effect*	
Youth Outcome	*Beta*	p	*Beta*	p
Onset of alcohol use[ad]				
Bonding with mother: parent report	.26	.09†	−.08	.59
Onset of AOD use[ad]				
Bonding with mother: parent report	.32	.04*	−.11	.42
Frequency of alcohol use over 3 month[abcd]				
Leveling about AOD use	−.05	.67	−.49	.00***
Leveling about schoolwork	−.29	.02*	−.14	.29
Bonding with mother: parent report	.42	.00***	.40	.00***
Bonding with father: parent report	−.03	.82	−.28	.02*
Bonding with siblings	−.24	.07†	.07	.58
Reject conventional values	.06	.67	.31	.02*
Frequency of alcohol use over 12 month[acd]				
Leveling about AOD use[abc]	−.08	.51	−.40	.01**
Leveling about schoolwork	−.20	.10†	−.04	.76
Bonding with mother: parent report	.38	.00***	.30	.02*
Bonding with mother: youth report	−.34	.02*	.00	.99
Bonding with father: parent report	.00	1.00	−.24	.05*
Bonding with siblings	−.25	.06†	.17	.20
Reject conventional values	.00	.97	.30	.03*
Frequency of drug use over 12 month[abc]				
Leveling about AOD use	−.50	.00***	−.48	.00***
Leveling about schoolwork	−.37	.00***	−.30	.02*
Bonding with mother: parent report	.26	.06†	.46	.00***
Bonding with father: parent report	−.29	.03*	−.26	.03*
Reject conventional values	.37	.01**	.24	.07†

NOTE: AOD = alcohol and other drugs. The *n* for the ANCOVA model varies from 102 to 120 youths according to the sample size of the moderator variable.
a. Covariate: AOD availability.
b. Covariate: number of changes in school.
c. Covariate: religiosity.
d. Covariate: defensiveness.
†$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$.

parents reported increased youth bonding with mother. Parents with youth who reported using alcohol or other drugs may have tended to overreport bonding with their youth because of denial. This result was consistent with the unanticipated result reported earlier regarding the moderating effects of parents' reported positive communication with their youth.

SUMMARY OF FINDINGS CONSISTENT WITH PROGRAM MESSAGE

The evaluation of the CLC program, an ecumenical church-based prevention program, found positive effects on community, family, and youth resiliency outcome measures and on AOD use among youth 12 through 14 years of age. The program increased community resiliency by successfully implementing an effective community strategy to empower church staffs and community volunteers to identify, recruit, and retain families with high risks for alcohol abuse in the program.

Gains in family and youth resiliency were achieved through conducting parent and youth training and providing early intervention and case management services throughout a 1-year period. Statistically significant overall program effects on family resiliency that were found to be consistent with the program message included increased (a) knowledge and beliefs about AOD information by parents, (b) youth involvement in setting AOD rules, and (c) use of community services. In addition, there were positive direct effects on family modeling of alcohol use in the African American church community and overall moderating effects on family alcohol use, which varied with each church community's level of empowerment and participation in the CLC project.

The CLC program also produced a number of positive effects on youth resiliency that were consistent with the program message. These effects included youths' (a) increased use of community services when personal or family problems arose, (b) increased bonding with mother (youths' and parents' reports), (c) increased bonding with father and siblings, (d) increased leveling communication, and (e) increased community involvement under specified conditions.

Most important, the CLC evaluation found that the program produced positive moderating effects on AOD use among youth as a result of conditional relationships with changes in family-level and youth-level resiliency factors targeted by the program. The family-level factors that served as moderator variables included (a) increased program-advocated AOD knowledge and belief, (b) increased family rules about non-AOD youth behavior, (c) increased youth involvement in setting non-AOD rules, (d) increased family communication, (e) increased use of community services when problems arose, and (f) decreased parents' frequency of alcohol use. Both an increase and decrease in likelihood of punishment for youths' AOD use and other misconduct was important, depending on whether the outcome was delayed onset or frequency of AOD use. Statistically significant youth-level

moderators included (a) increased leveling about AOD use and schoolwork, youths' reported bonding with mother and father, and parents' reported bonding with siblings and (b) decreased conflict, pathology, and estrangement in the family as reported by the youth.

In conclusion, the findings presented from the evaluation of the CLC program strongly indicate that a church community-based intervention that integrates system- and client-level program components can strengthen resiliency among high-risk youth and their families. Moreover, the findings show that community-based prevention can delay and reduce the frequency of AOD use among youth within a 1-year period. The CLC program was evaluated rigorously using random assignment procedures, valid and reliable outcome measures, and multivariate analysis methods to uncover direct and conditional relationships between the program and outcomes. The evaluation found results that were strong, but not definitive; others need to replicate the CLC program before it can be said to be truly exemplary.

SIGNIFICANT LEARNINGS FROM THE CLC PROJECT

In an effort to advance the AOD abuse prevention field, we offer the following learnings.

- A risk and resiliency approach to AOD prevention that targets multiple factors and multiple domains can achieve measurable results.
- It is important to define *community* in terms of viable social relationships rather than geographical or jurisdictional boundaries.
- Churches are ideal social systems from which to launch prevention efforts.
- Church community members can play a critical role in planning, recruiting, implementing, and evaluating a comprehensive prevention program.
- Programs of significant scope and duration (6 months of intensive training and 6 months of follow-up) increase the likelihood of achieving significant results.
- It is possible to recruit and retain high-risk youth and their parents into prevention programs of significant scope and duration.
- The inclusion of early intervention, treatment referral, and follow-up services can increase greatly a project's likelihood of success.
- Inclusion of target community leaders, flexibility in incorporating cultural differences, and use of culturally competent staff in program planning and implementation allow for a program's broad appeal across inner-city, suburban, and rural populations.

- Implementing a comprehensive and effective prevention program that focuses on community empowerment stimulates community interest, demand, and the development of ongoing prevention activity using local resources.
- The program staff and evaluation team should work closely together in conceptualizing the program and its evaluation.
- It is important to develop a clearly delineated program theory that sets forth descriptive and prescriptive expectations as testable hypotheses.
- Confidence in the evaluation results can be enhanced by use of a true experimental design with three or more repeated measures, multiple data collection methods, multiple indicators, and rigorous validity and reliability checks.
- External validity can be increased by implementing and evaluating a program in multiple sites across rural, suburban, and inner-city settings.
- It is essential to assess differential and panel attrition and, if present, make the appropriate adjustments in the final outcome analysis.
- An examination of moderating effects of resiliency factors in multiple domains increases the probability of detecting statistically significant results, which facilitates a more accurate understanding of the effects of AOD prevention programming.

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