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Predictors of Participation in Parenting Workshops for Improving Adolescent Behavioral and Mental Health: Results from the Common Sense Parenting Trial

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Abstract

Engaging and retaining participants are crucial to achieving adequate implementation of parenting interventions designed to prevent problem behaviors among children and adolescents. This study examined predictors of engagement and retention in a group-based family intervention across two versions of the program: a standard version requiring only parent attendance for six sessions and an adapted version with two additional sessions that required attendance by the son or daughter. Families included a parent and an eighth grader who attended one of five high-poverty schools in an urban Pacific Northwest school district. The adapted version of the intervention had a higher rate of engagement than the standard version, a difference that was statistically significant after adjusting for other variables assessed at enrollment in the study. Higher household income and parent education, younger student age, and poorer affective quality in the parent-child relationship predicted greater likelihood of initial attendance. In the adapted version of the intervention, parents of boys were more likely to engage with the program than those of girls. The variables

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Conflict of Interest

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considered did not strongly predict retention, although retention was higher among parents of boys. Retention did not significantly differ between conditions. Asking for child attendance at workshops may have increased engagement in the intervention, while findings for other predictors of attendance point to the need for added efforts to recruit families who have less socioeconomic resources, as well as families who perceive they have less need for services.

Keywords

Intervention participation; Intervention attendance; Parenting groups; Family-based prevention

Introduction

Family-based prevention and treatment interventions for universal or high-risk populations need to engage and retain participants in order to have high-quality implementation (Berkel, Mauricio, Schoenfelder, & Sandler, 2011; Durlak & DuPre, 2008; Dusenbury, Brannigan, Falco, & Hansen, 2003; Moran, Ghate, & Merwe, 2004). Unfortunately, participation rates are often low (Center for Substance Abuse Prevention, 1998; Nordstorm, Dumas, & Gitter, 2003; Spoth & Redmond, 2000). For parenting interventions that involve group workshops, requiring child attendance in some sessions may affect participant attendance rates (Fabiano et al., 2009). The present study examines engagement and retention in Common Sense Parenting® (CSP), a group-based parent training intervention developed by Boys Town. Based on data from a randomized efficacy trial conducted with diverse families from high-poverty urban middle schools, we assessed attendance and predictors of attendance across two versions of the program: the original program requiring only parent attendance, and an adapted program requiring attendance by the son or daughter at two additional sessions.

Common Sense Parenting and Child Involvement in Workshops

Common Sense Parenting (Burke, Herron, & Barnes, 2006) is based on the teaching-family model (Wolf, 1976), draws on components of effective parenting interventions (Barth et al., 2005; Kaminski, Valle, Filene, & Boyle, 2008), and has shown some evidence of effectiveness in small-scale and non-experimental studies (Thompson, Ruma, Brewster, Besetsney, & Burke, 1997; Thompson, Ruma, Schuchmann, & Burke, 1996). The standard CSP program is delivered in six group workshops for parents of children ranging in age from early childhood to adolescence. Children do not attend the workshops. Prior to beginning a trial of CSP with parents of eighth graders in high-poverty area urban schools, we reviewed research on parenting workshops and found that combining youth and parent training can provide added value (DeMarsh & Kumpfer, 1985; Kaminski et al., 2008; Kazdin, Siegel, & Bass, 1992). Given the narrow age range of the children in the CSP trial, we decided that program content could be added that targeted developmentally salient issues, such as the upcoming transition to high school. Therefore, we introduced an adapted version of the CSP program to the trial that included high school transition content. In addition to a control condition and a condition in which we offered families the standard six-session CSP program, we added a condition in which we offered families an adapted eight session parent-youth format known as CSP *Plus*. In this adapted version of the program,

parents attended six standard CSP sessions alone, and an additional two newly developed sessions with their eighth-grade student.

It was unclear how the CSP *Plus* adaptation might affect workshop attendance. On the one hand, parents may perceive more benefits from a program that includes their children and may welcome the opportunity to discuss family issues and practice parenting skills with their children present. On the other hand, some parents may not want to bring their children to the added workshops, their children may be unwilling to attend, or the families may have added challenges with scheduling and transportation. Prior research on selective or indicated interventions for children with externalizing problems suggests that parent attendance at parenting trainings is higher when children are involved in the trainings (Fabiano et al., 2009) or are receiving services concurrently with parents attending workshops (Jensen & Grimes, 2010). With respect to universal parenting programs, Spoth and colleagues (1999) conducted a comparison of attendance in two parenting programs that differed in the expected level of child attendance. In a three-arm efficacy trial conducted in rural communities in Iowa, they examined attendance in Preparing for the Drug Free Years (PDFY; later renamed Guiding Good Choices), which asked for child attendance at one out of five group workshop sessions, and the Iowa Strengthening Families Program (ISFP; later renamed Strengthening Families 10–14), which required child attendance at all seven sessions. Neither rates of initiation (i.e., coming to at least one session) nor attending at least 50% of sessions differed by condition.

Predictors of Group Workshop Attendance

Since not all invited participants attend group workshops, it is important to examine the characteristics of those individuals who do attend to help discover ways to improve overall attendance. Prior research has identified a number of variables that predict attendance at parenting workshops (for a review, see Whittaker & Cowley, 2012), although the amount of explained variance in attendance is typically low (Spoth & Redmond, 2000).

Sociodemographics—Predictors of attendance include sociodemographic variables that may be related to resources and ability to attend (Brody, Murry, Chen, Kogan, & Brown, 2006; Coatsworth, Duncan, Pantin, & Szapocznik, 2006a; Dumas, Nissley-Tsiopinis, & Moreland, 2007; Haggerty, MacKenzie, Skinner, Harachi, & Catalano, 2006; Heinrichs, Bertram, Kuschel, & Hahlweg, 2005; Spoth & Redmond, 2000; Whittaker & Cowley, 2012; Winslow, Bonds, Wolchik, Sandler, & Braver, 2009). A number of studies have found that parent education predicts attendance (Coatsworth et al., 2006a; Gyll, Spoth, & Redmond, 2003; Haggerty et al., 2002; Haggerty et al., 2006; Pettersson, Lindén-Boström, & Eriksson, 2009; Spoth & Redmond, 2000; Winslow et al., 2009), suggesting that parents with higher levels of educational attainment may be more comfortable with a classroom setting. Brody and colleagues (2006) found that more children in the household was associated with less parent attendance at group sessions. Some studies have reported a relationship between ethnicity, which may be confounded by socioeconomic status, and attendance. African American parents appear to be less likely than parents/caregivers of other ethnic groups to attend group parenting workshops (Coatsworth et al., 2006a; Haggerty et al., 2006).

Child characteristics and behaviors—Prior research indicates inconsistent support for characteristics and behavior patterns of children as predictors of parent workshop attendance. Spoth and colleagues (1999) found no evidence that child externalizing or internalizing behaviors predicted parent attendance in PDFY or ISFP (Spoth, Goldberg, et al., 1999; Spoth & Redmond, 2000). However, some studies have found that parents who report more externalizing behaviors or maladjustment among their children are more likely to attend workshops (Garvey, Julion, Fogg, Kratovil, & Gross, 2006; Haggerty et al., 2002; Winslow et al., 2009). This finding suggests that parents who perceive that the programs may help address their children's problems are more likely to attend (Redmond, Spoth, Shin, & Hill, 2004; Spoth & Redmond, 2000; Spoth, Redmond, & Shin, 2000; Winslow et al., 2009). Brody and colleagues (2006), however, found the opposite pattern in their study of a parenting intervention with African American families from rural Georgia: parents who reported higher levels of unconventionality (exposure and low resistance to risky behaviors) among their children were less likely to attend workshops. Brody and colleagues (2006) note that their program required child attendance and involvement in the intervention, which might be problematic for families of children who can be disruptive.

Family factors—Research also has examined the link between measures of family management or functioning and parenting group workshop attendance, but the findings have been mixed. The issues may be similar to those that apply to parents' reports of their children's characteristics. Some studies have shown that parents who report difficulty managing their families or more conflict and disharmony with their children may perceive more benefit from a program that helps address these issues (e.g., Gorman-Smith, Tolan, Henry, & Leventhal, 2002). Alternately, family dysfunction may be a barrier to attendance because parents in dysfunctional families are hesitant to participate in group workshops where their family dynamics are on display (e.g., Cohen & Linton, 1995; Ryan, Boxmeyer, & Lochman, 2009; Whittaker & Cowley, 2012). In a study of parenting classes for recently divorced mothers, Winslow and colleagues (2009) found no support for parents' reports of parenting or family dynamics predicting attendance, and Spoth and colleagues (1999) found no evidence that the affective quality in relationships between parents and children predicted attendance in PDFY or ISFP.

Adaptation as a moderator of attendance predictors—Adaptions of programs might affect attendance differently for different groups. For example, Haggerty and colleagues (2006) compared attendance in a parenting group workshop with participation in a self-administered version of the same program. They found that older child age and higher levels of parent education more strongly predicted participation in the program's self-administered than group-administered format.

Child involvement may also moderate relationships between predictors and attendance, with different predictors being salient for the modified version. Adding child attendance to group workshops may create more logistical challenges for families with low resources. For example, requiring child attendance might make transportation and childcare issues more difficult, and these barriers may be particularly difficult to overcome for single-parent or lower income families. Also, as suggested by Brody and colleagues (2006), involving

children in a workshop may make attendance more difficult for families with disruptive, high externalizing children. On the other hand, adding child involvement might make workshops more appealing for subgroups of families who perceive that the child-involved workshops will match their needs. For instance, parents and children experiencing high levels of conflict might feel that going to a workshop together will help them work through some of their problems, whereas families with less conflict might consider child involvement unnecessary and unhelpful.

Present Study

In this study, we examine attendance across two versions of a parenting program (CSP): a standard six-session version in which only the parents attend, and an adapted eight-session version that involves children in the two additional sessions. Two dimensions of attendance in prevention group workshops are commonly identified (Coatsworth et al., 2006a; Coatsworth, Duncan, Pantin, & Szapocznik, 2006b; Haggerty et al., 2006). The first involves engagement: that is, whether participants attend any sessions of a series of workshops. The second dimension is retention. Patterns of retention can be measured in different ways, although, most simply, retention pertains to the total possible number of sessions attended by the participants who initially engage. Predictors of participation for these two dimensions may differ (e.g., Haggerty et al., 2006). In the current study we first assess whether the adapted version of CSP had an effect on participant attendance, either in terms of engagement or retention. Second, we investigate what variables predicted attendance in both interventions. Finally, we examine whether predictors of attendance have similar relationships to initiation and retention in the standard version of CSP and the adapted version.

Method

Sample and Procedures

Families enrolled in a randomized controlled trial of the CSP intervention provided data for this study. Each family included a target parent and a target eighth grader who attended middle schools in Tacoma, Washington. The project recruited families from two successive cohorts of eighth graders. In the first year, we recruited families from three middle schools; in the second year, we added two additional middle schools to the recruitment pool. At all five schools, the percent of students in Grades 6 through 8 who received free or reduced-price school lunch was above 70% in the 2010/2011 school year. Three of the five schools fed into a high school with a 5-year graduation rate of 52% for the class of 2010.

The school district did not allow project staff to contact potential participants directly until parents had signed a permission slip. Research staff presented the study during core classes (e.g., homeroom, science) and distributed permission slips for the students to take home to their parents. Schools disseminated study-related information through emails, automated phone reminders, newsletters to parents, and morning announcements. Schools also mailed a copy of the permission slip directly to families who did not respond to initial recruitment efforts. When possible, research staff set up an information table at evening school events to inform parents about the study.

The total population of eighth-grade students in the three recruitment schools in the first year and the five recruitment schools in the second year consisted of 1,646 students. A total of 658 families returned permission slips agreeing to release of contact information. Assignment to intervention condition occurred prior to consent. We assigned identification numbers in the order in which participants returned permission slips and then blocked the participants by school and adolescent gender. Within blocks, we assigned families sequentially to one of the three experimental conditions: standard CSP, CSP *Plus*, or a no-intervention control condition. The staff person who made assignments to condition had no contact with individual families and had no information on families other than identification numbers, gender of the students, and the students' schools. Data collection staff, who were not informed of condition assignments, contacted families to schedule times to provide parental consent and child assent to participate in the research project and to conduct a baseline interview. Consent to participate involved both a parent and the eighth-grade student agreeing to complete the baseline and follow-up computer-assisted personal interviews and attend a series of workshops if selected into one of the intervention conditions. Families learned of their condition assignment after consenting to participate and completing the baseline assessment. No families declined to participate in the project after learning of their condition assignment and every family who completed a baseline assessment is included in the present study. Of the 658 families who returned slips agreeing to the release of contact information, 321 enrolled in the project. The project enrolled 122 families in the 2010/2011 school year and 199 families in 2011/2012. Comparisons of the sample with the population of eighth-grade families in participating schools based on district data revealed similarities (e.g., sample/population: free lunch = 78%/80%, student special education status = 17%/15%) and some differences (e.g., sample/population: Hispanic = 14%/23%, female = 53%/47%).

Of the 321 families enrolled, we assigned 108 to a minimal contact control condition, 118 to the standard six-session CSP program condition, and 95 to the eight-session CSP *Plus* program condition. The University of Washington and Father Flanagan's Boys' Home (Boys Town) Institutional Review Boards, as well as the participating school district, reviewed and approved all study procedures.

At the end of the baseline interview, those families assigned to one of the two intervention conditions provided information about their availability for parenting workshop times. A research coordinator later contacted families by phone to schedule participation in a workshop group. Project staff attempted to schedule workshops at times that would accommodate families' schedules. We attempted to offer each family four workshop group options that met at different times and locations. If families failed to attend the first workshop session, they received reminder calls and emails encouraging them to attend the second session. We did not make additional efforts to encourage attendance if parents failed to attend the first two sessions, although we contacted non-attending families later and offered them an opportunity to schedule one-on-one makeup sessions.

To reduce barriers to participation, we provided families with young children a stipend to pay for childcare (although few families took advantage of the stipend), and also offered reimbursement for bus or cab fare to families to offset transportation costs. To help motivate

and reward attendance, we used a lottery system. At the end of each workshop session, we randomly selected one attendee to receive a cash prize. At the first five sessions in the CSP condition and the first seven sessions in the CSP *Plus* condition, the prize was \$35. At the last session of each workshop group, the prize was \$150 and was based on attendance throughout the class such that participants who attended more sessions had higher odds of winning.

Parents in the analysis sample ($n = 213$) were from families in the two intervention conditions. According to parents' self-report, the racial/ethnic composition of the parent sample was 52% Caucasian, 26% African American, 4% Asian American, 4% Pacific Islander, 1% Native American, and 13% mixed or "other" and 12% reported they were Hispanic. Most of the parents (68%) were the biological mothers of the eighth-grade student, while 15% were biological fathers and the remainder (17%) were stepparents, grandparents, or some other guardian. Eighty-four percent of the parents were female (e.g., biological mother, stepmother). Forty-seven percent were married, 22% were in a committed relationship but not married, and 31% were single; 59% reported living with a spouse or significant other. Parent average age was 40.65 years ($SD = 7.69$). Forty-one percent of the parents reported annual incomes below \$24,000 for their households and 60% received food stamps. Forty-three percent of the parents were employed full time, 14% part time, and 15% considered themselves unemployed. Ninety-one percent of the parents were high school graduates or had a GED, while 37% had some college, and 13% had a Bachelor's or more advanced degree. Fifty-five percent of the eighth-grade students in the study were female, and the mean age of students at enrollment was 13.5 years ($SD = 0.5$).

Interventions

The standard CSP program consists of six sessions, held weekly, that each last for two hours. CSP sessions consisted of the following structured learning activities: an introduction (Session 1 only), a review of the prior week's material (Sessions 2 – 6 only), instruction on new parenting skills, discussion of short videos demonstrating the skills, guided skills practice, and a summary of the session and assignment of homework activities. We added two sessions for the CSP *Plus* condition, one at the beginning and one at the end of the standard CSP sessions. We asked the eighth-grade students to attend each of these two sessions with their parents. The CSP *Plus* sessions adopted the same structure as CSP, and included new content regarding goal setting for parents and their teens around the transition to high school and guided skill practice in family communication, decision making, and problem solving with respect to the opportunities and responsibilities involved in this transition. Table 1 summarizes the content of workshop sessions. Fidelity assessments conducted by coding a random sample of 38 videotaped workshop sessions indicated that adherence to program content was high. Overall, 95% of the core components of the interventions were delivered as designed.

Measures

Engagement and retention—We measured engagement by whether the parent attended any workshop session. After informing participants of their assignment to one of the two intervention conditions, we focused efforts on persuading them to attend the first and second

sessions of the workshop groups. Only four of 60 parents who missed the first two sessions attended a later session. We calculated retention (for those parents who came to any session) as the percentage of possible sessions attended. For CSP, this means the number of sessions attended as a percentage of six, while for CSP *Plus* it was the number of sessions attended as a percentage of eight.

Sociodemographics—We examined the following demographic variables collected from baseline parent interviews as predictors of attendance: race, ethnicity (Hispanic vs. non-Hispanic), whether the parent lived with a spouse or significant other, parent's and child's genders and ages, and cohort (i.e., 2010/2011 or 2011/2012). Since racial groups other than Caucasian and African American were small (n 's < 12), we excluded cases in other categories (i.e., Asian American, Pacific Islander, Native American, or "mixed") from analyses involving race as a predictor of engagement and retention. We measured socioeconomic status (SES) using household income (a 19-point measure ranging from categories of "less than \$10,000" to "over \$200,000") and parent education (an 8-point measure ranging from "some high school" to "Ph.D., J.D., D.D.S., M.D., D.V.M.").

Child characteristics—We considered three aspects of child behavior as potential predictors of attendance. We measured academic performance based upon students' responses to the question, "Putting them all together, what were your grades like last year?" for which response options ranged from 1 = "mostly F's" to 5 = "mostly A's." We measured internalizing behaviors using the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001) emotional symptoms scale, the mean of responses to five parent-report items that asked about the child's behavior during the prior 6 months (examples: "Often unhappy, depressed or tearful" and "Many worries or often seems worried"). Each item had response options of 1 = "Not True," 2 = "Somewhat True," and 3 = "Certainly True." Cronbach's α for the scale was .70. We measured externalizing behaviors using the SDQ conduct problems scale, also the mean of five parent-report items within the prior 6-month time frame (examples: "Steals from home, school or elsewhere" and "Often lies or cheats"; $\alpha = .66$).

Parenting—We assessed family management using a composite of the following subscales from the Alabama Parenting Questionnaire (APQ; Elgar, Waschbusch, Dadds, & Sigvaldason, 2007): involvement (10 items, example: "How often do you have a friendly talk with your child?"; $\alpha = .81$); positive parenting (3 items; example: "How often do you let your child know when he/she is doing a good job with something?"; $\alpha = .82$); inconsistent discipline (3 items; example: "How often do you threaten to punish your child and then do not actually punish him/her?"; $\alpha = .62$); and poor supervision (3 items; example: "How often does your child go out with friends you don't know?"; $\alpha = .67$). All items asked about the current frequency of parenting behaviors and had response options ranging from 1 = "Never" to 5 = "Always." We coded each subscale so that a higher score represented more positive family management. We computed a z score for each subscale, and calculated a composite measure for family management using the mean of these z -scores. In our study, Cronbach's α for the combination of z scores was .62.

Family characteristics—We measured parent-child affective quality (Spoth, Redmond, Shin, & Huck, 1999) using 12 parent survey items, all of which asked about the frequency of behaviors in the prior month. Six items asked about parent’s treatment of the child (examples: “How often did you let this child know you really care about him/her?” and “How often did you shout or yell at this child because you were mad at him/her?”) and six asked about the child’s behavior toward the parent (examples: “How often did [Student] let you know he/she really cares about you?” and “How often did [Student] shout or yell at you because he/she was mad?”). Response options for all items ranged from 1 = “Never” to 5 = “Always” and were coded so that a higher scale score indicated more positive affective quality and less family conflict. Cronbach’s α for this measure in our study was .88.

Analysis

Initial analyses addressing our first research question compared attendance in the CSP and CSP *Plus* groups, examining attendance at individual sessions and according to the measures of engagement and retention. We examined descriptive data on potential predictors of attendance across conditions and conducted a series of regression analyses. Prior to analyzing predictors of engagement and retention, all potential predictors were mean centered and continuous predictors were z scored. We used logistic regression models to examine predictors of engagement. Addressing our second research question, we first assessed potential predictors individually via a series of simple logistic regression models. To determine if the predictors had similar or different relationships with the two measures of attendance (question 3), we examined condition-by-predictor interactions for each predictor in models that included main effects for condition and the given predictor. Next, we entered multiple predictors into a multiple logistic regression model to examine adjusted effects on the outcome. This model, which addressed all three research questions, included intervention condition, sociodemographic variables, and interaction terms that were significant ($p < .05$) predictors of initiation in the simple logistic regression models (as well as component variables for the interaction terms), and measures representing child, parenting, and family characteristics. We followed a similar approach for examining retention among those that initiated, although we used linear regression models, treating retention as a continuous variable. We used an alpha level of $p < .05$ in this study to organize the reporting of the results with the caveat that we considered multiple potential relationships between predictors and attendance.

As noted above, students were recruited from five middle schools, although schools were not the unit of assignment and the parenting workshops did not necessarily take place at the schools. We conducted analyses to determine whether engagement or retention differed by the student’s middle school. Engagement varied from 65% to 79% across the five schools, which was not a statistically significant difference ($\chi^2(4) = 2.38, p = .67$). Mean retention ranged from 67% to 79% ($F(4, 152) = 0.84, p = .50$). There was no evidence of school-by-intervention-condition interaction effects on engagement and retention, neither of which differed significantly between schools when analyses were conducted separately by intervention condition. On this basis, we omitted school as a control variable in our subsequent analyses.

Results

Attendance across conditions

Table 2 shows attendance at each session by condition. The highest rate of attendance was at the first session of *CSP Plus*, which 70% of invited participants attended. In both conditions attendance was highest at the first few sessions and then tapered off, although almost half of CSP participants attended the last session and more than half of *CSP Plus* participants came to the last session that included their children. Twenty-one percent of CSP participants came to all six sessions compared to 17% in the *CSP Plus* condition who attended all eight of the sessions. Engagement was slightly higher in the *CSP Plus* condition (79%) than the CSP condition (70%), although the difference was not statistically significant ($\chi^2(1) = 2.43, p = .12$). Retention was similar across conditions ($M = 68.33\%$, $SD = 29.52$ in *CSP Plus* vs. $M = 72.38\%$, $SD = 27.36$ in CSP; $t(155) = 0.89, p = .38$).

Predictors of engagement

Table 3 provides descriptive data on potential predictors of attendance by experimental condition. One of 15 variables differed significantly by condition, with parents in the *CSP Plus* condition reporting better parent-child affective quality than parents in the CSP condition. Table 4 displays estimates for models predicting engagement. When considered separately in a series of simple logistic regression models (left column of Table 4), lower student age, higher parent education, higher household income, and lower parent-child affective quality predicted greater likelihood of engagement. Tests of predictor-by-condition interactions indicated differential prediction across conditions for cohort and student gender. In CSP, 82% of the first cohort versus 62% of the second cohort engaged ($\chi^2(1) = 5.61, p = .02$), compared to 75% in the first cohort and 81% in the second cohort in the *CSP Plus* condition ($\chi^2(1) = 0.54, p = .46$). In CSP, 72% of parents of females engaged versus 66% of parents of males ($\chi^2(1) = 0.54, p = .46$), compared to 71% of parents of females versus 89% of parents of males in *CSP Plus* ($\chi^2(1) = 4.63, p = .03$).

As shown in the right column of Table 4, results from the multiple logistic regression model predicting engagement indicated that parents in the *CSP Plus* condition were significantly more likely to attend any sessions than parents in the CSP condition after adjusting for other predictors. Since variables were mean centered, the estimated main effect of CSP condition in this model can be understood as the average total effect of condition and is the same in terms of direction and significance level as in a model that does not include the interaction terms. The higher adjusted than unadjusted association is primarily due to taking family affective quality at baseline into account, since affective quality was higher in the *CSP Plus* than the CSP condition and was also negatively associated with likelihood of engagement. Controlling for affective quality therefore resulted in an estimate of the effect of intervention condition that was larger than the unadjusted estimate. Student age had a significant negative unique effect in the multiple logistic regression model, as did the cohort-by-intervention-condition interaction. Parent education, household income, and the interaction between student gender and intervention condition no longer had significant unique effects after adjusting for other predictors.

Predictors of retention

Results from the series of simple linear regression models predicting retention are shown in the left column of Table 5. Student gender was the only significant predictor of retention. Parents of boys, on average, came to 77% of their possible sessions compared to 65% for parents of girls. No predictor-by-condition interactions were statistically significant. A multiple linear regression model with student gender and the student, parenting, and family characteristic variables showed a significant independent effect only for student gender (right column of Table 5).

Discussion

In this study we investigated whether including child attendance had an effect on parents' attendance at a parenting workshop, what variables predicted attendance, and whether sociodemographic variables and child and family characteristics were differentially predictive of attendance across intervention conditions. Regarding the first question, findings from regression analyses in this study indicate that an adapted version of CSP that included child attendance at some workshops resulted in higher engagement and similar retention compared to the standard version of CSP that did not ask for child attendance. The difference in engagement, which was not statistically significant based on bivariate analyses, became significant after adjusting for other predictors of attendance. There was no support for the concern that asking children of parents to attend workshops might decrease engagement. The findings suggest that child involvement may have made participation in the workshops more inviting and corroborates findings from selective or indicated parenting interventions that parent attendance is better when children are also involved in the interventions (Fabiano et al., 2009; Jensen & Grimes, 2010).

Child participation was not the only way in which the two intervention conditions differed. The CSP *Plus* program included two additional sessions, thus increasing opportunities to attend and perhaps partially accounting for greater engagement. Of all the workshop sessions, attendance was highest (70%) at the first session of CSP *Plus* when children were included. Rates of attendance were similar for the CSP and CSP *Plus* condition for the parent-only sessions, hovering below 50% for the last three parent-only sessions. For the final CSP *Plus* session, attendance increased to 56%. Some research suggests that parents have preferences about the number of sessions in a workshop series, with parents hesitant to commit to as many as 10 sessions (Spoth & Redmond, 1993). Here, the additional two sessions, increasing the number in the series from six to eight, did not seem to dissuade parents from at least engaging in the intervention.

With respect to our second research question, variables that were predictive of engagement point to the issue of program reach. Variables related to SES were predictive of engagement, at least at the bivariate level. Even within a sample characterized by a high rate of poverty, parents with lower levels of education and household incomes were less likely to come to at least one session of the intervention. This finding is similar to what prior studies have reported (Spoth & Redmond, 2000), although our study targeted a lower SES urban sample, and the finding suggests that extra recruitment efforts and accommodations may be needed to get families with fewer resources to attend. Other modes of delivery, such as self-

administered programming, may also engender greater participation (Haggerty et al., 2006; Prinz, Sanders, Shapiro, Whitaker, & Lutzker, 2009).

Other predictors may indicate a lack of perceived need or suitability of the intervention. Parents of older children were less likely to attend. The study involved families of eighth graders and the age range of the children was thus narrow. The finding suggests that CSP appealed to parents whose children were relatively young for their grade. This finding might also be related to the children's willingness to participate or enthusiasm for their parents' participation. Adolescents relatively old for their grade may be less supportive of their families' attendance at these sorts of parenting groups. In contrast to findings in some prior studies (Garvey et al., 2006; Haggerty et al., 2002; Winslow et al., 2009), child characteristics of externalizing or problem behaviors were not strongly related to attendance. However, parents who reported more positive and harmonious relationships with their children were less likely to engage, suggesting that they did not perceive a need to participate in a parenting intervention. These findings have implications for recruitment, indicating a need to be clear about what interventions have to offer for parents of different types of families. For instance, it may be important to state clearly in brochures, flyers, and other advance materials that workshops will address skills needed to effectively parent both sons and daughters and have something to offer families that are getting along fairly well.

Among those parents who engaged in the intervention, the set of variables considered in this study did not strongly predict retention. Child gender (male) was the only variable related to retention. This may, again, reflect the perception on the part of parents that the intervention is directed at handling issues that are more common among boys, or a greater willingness to participate on the part of boys. Some research has indicated that variability in workshop leader style or skills or group dynamics may influence whether participants who attend initial sessions decide to return for additional sessions (Berkel et al., 2011; Coatsworth et al., 2006b; Moran et al., 2004; Prado et al., 2007; Whittaker & Cowley, 2012). Unfortunately, we lacked data on group dynamics, and the number of different workshop groups and workshop group leaders was too small to examine rigorously the effect of variables at those levels on attendance. We expect that the group dynamics and workshop leaders' styles were similar across groups since the intervention was manualized and the workshop group leaders all received the same training, certification, and supervision.

Regarding our third research question, we found that most intervention-by-predictor interaction terms did not significantly predict attendance, but that cohort and student gender more strongly predicted engagement in one intervention condition than the other. It seems that asking for student attendance at the first session may have made the program more inviting for parents of boys, perhaps suggesting that parents perceived the student-involved workshops to be more geared towards boys. The other differentially predictive variable was cohort, which predicted engagement for the CSP condition such that engagement was lower in the second year of the program. This difference is perhaps due to strategic factors in scheduling that may have varied across years and that have been found in other research to impact attendance at family interventions (Moran et al., 2004). Although we attempted to match the timing of workshops across cohorts and to offer all families at least four different options in terms of time and location, some differences likely emerged that could have

affected engagement. Matching families' varied and shifting work schedules or other time commitments was challenging and our success in this task may have varied across the two years in which we conducted the workshops. There may also have been word-of-mouth effects that varied across cohorts. For example, parents who had negative experiences in CSP in the first year of the study may have talked to other families about the experience, influencing engagement rates in the second year. Also, we added two new schools in the second year of the project. The new schools, however, had engagement and retention rates that were similar to the other three schools. While the mechanisms behind the condition-by-predictor interactions are unclear, the interactions more generally suggest that an adaptation may affect reach and the representativeness of the population that actually receives an intervention.

A strength of this study is that it examined a range of sociodemographic, child, and family predictors of workshop attendance. The sample predominantly consisted of low-income families whose children attended middle schools that fed into high schools with high dropout rates. The enrolled sample comprised one fifth (321 out of 1,646) of the potentially eligible students in the targeted middle schools. Recruitment efforts were hampered somewhat by the fact that the research staff were not allowed to contact families until they had returned a signed form that released their contact information. The fact that the data come from a community sample and may not be representative of the total population of families from the target schools limits the generalizability of the findings. Some studies have asked prospectively about the benefits and barriers to participation, which provide information on the mechanisms through which sociodemographics and child, parent, and family characteristics influence attendance (Redmond et al., 2004; Spoth et al., 2000). However, it was beyond the scope of this study to include such data. Finally, variability in the current study was limited for a number of variables that may be related to workshop attendance. The only racial groups that were large enough to compare were Caucasian and African American parents. Most adults in the sample were biological parents, and those who were not were a heterogeneous group; thus, we lacked data to compare attendance across different caregiver types other than comparing by gender.

The findings from this study suggest that adding child attendance to a family-based intervention is likely to increase attendance. The results also support efforts to recruit and accommodate low-SES families and to find ways to appeal to those with varied perceived needs.

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Table 1

Intervention session content

Session	Participant	Title	Content
CSP <i>Plus</i> first session	Parent & Student	Planning For Success	<ul style="list-style-type: none"> • Opportunities for high school success • Parent and teen check-ups • Setting goals for high school • Coaching problem solving with teens
CSP 1	Parent	Parents Are Teachers	<ul style="list-style-type: none"> • Effective discipline • Describing children's behaviors • Using consequences to change behaviors
CSP 2	Parent	Encouraging Good Behavior	<ul style="list-style-type: none"> • Giving kids reasons • Using effective praise to increase positive behaviors
CSP 3	Parent	Preventing Problems	<ul style="list-style-type: none"> • Teaching social skills to children • Using preventive teaching to set children up for success
CSP 4	Parent	Correcting Problem Behavior	<ul style="list-style-type: none"> • Staying calm • Using corrective teaching to stop problem behaviors and teach alternative behaviors
CSP 5	Parent	Teaching Self-Control	<ul style="list-style-type: none"> • Safe home plans • Teaching use of self-control when children are not cooperating
CSP 6	Parent	Putting It All Together	<ul style="list-style-type: none"> • Holding family meetings • Establishing family routines and traditions • Developing a parenting plan for using all of the Common Sense Parenting skills
CSP <i>Plus</i> ending session	Parent & Student	Letting Loose Without Letting Go	<ul style="list-style-type: none"> • Opportunities for independence • Trust and freedom • Coaching decision making with teens

Table 2Attendance at CSP and CSP *Plus* sessions by condition

	CSP (<i>n</i> = 118)	CSP <i>Plus</i> (<i>n</i> = 95)
	%	%
CSP <i>Plus</i> first session	--	70
CSP 1	62	60
CSP 2	58	58
CSP 3	43	50
CSP 4	46	47
CSP 5	44	45
CSP 6	49	46
CSP <i>Plus</i> ending session	--	56

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Table 3

Descriptive data for potential predictors of attendance by experimental condition

	CSP (%) <i>M (SD)</i>	CSP Plus (%) <i>M (SD)</i>
Second cohort	62	62
Parent male	18	15
Parent age	40.77 (7.96)	40.50 (7.38)
Parent race		
Caucasian	47	58
African American	28	23
Other ^a	25	19
Parent Hispanic	13	11
Student male	45	46
Student age	13.47 (0.53)	13.44 (0.52)
Parent live with partner	59	59
Parent education (8-point scale)	3.50 (1.80)	3.21 (1.67)
Household income (19-point scale)	7.91 (4.60)	7.98 (4.09)
Student grades	3.87 (0.99)	3.79 (1.03)
Emotion symptoms	2.33 (2.14)	2.47 (2.23)
Conduct problems	1.57 (1.78)	1.43 (1.69)
Family affective quality	3.90 (0.62)	4.07 (0.54)*
Family management	-0.01 (0.73)	0.01 (0.63)

* $p < .05$.

^aThe other category includes Asian American, Pacific Islander, Native American, and mixed.

Table 4

Predictors of initiation (attending 1 or more session)

	Simple Logistic Regression models	Multiple Logistic Regression model
	OR (95% CI)	OR (95% CI)
CSP <i>Plus</i>	1.64 (.88–3.09)	2.13* (1.02–4.45)
Second cohort	0.63 (.33–1.22)	0.73 (.34–1.57)
Parent male	0.54 (.25–1.16)	
Parent age	1.36 (.97–1.90)	
Parent race (Caucasian = 0 African American = 1)	0.62 (.30–1.29)	
Parent Hispanic	0.88 (0.34–2.28)	
Student male	1.28 (0.69–2.37)	1.41 (0.67–2.95)
Student age	0.70* (0.51–0.95)	0.69* (0.49–0.98)
Parent live with partner	1.66 (0.90–3.07)	
Parent education	1.48* (1.00–2.14)	1.32 (0.87–2.00)
Household income	1.50* (1.09–2.06)	1.29 (0.91–1.83)
Student grades	1.29 (0.96–1.75)	1.30 (0.90–1.90)
Emotion symptoms	0.84 (0.63–1.13)	0.71 (0.49–1.02)
Conduct problems	1.08 (0.79–1.48)	1.05 (0.71–1.57)
Family affective quality	0.70* (0.50–0.96)	0.57* (0.36–0.89)
Family management	0.99 (0.73–1.35)	1.14 (0.73–1.78)
CSP <i>Plus</i> by second cohort		4.96* (1.09–22.60)
CSP <i>Plus</i> by student gender		3.95 (0.90–17.41)

* $p < .05$.

OR = odds ratio, CI = confidence interval

Note. Sample size is 213, except for single predictor model comparing Caucasian and African American parents for which the sample size is 165. All continuous predictors are z scored and all predictors in the full model are mean centered.

Table 5

Predictors of retention (percentage of possible sessions attended) among those who initiated

	Simple Linear Regression models <i>B</i> (<i>SE</i>)	Multiple Linear Regression model <i>B</i> (<i>SE</i>)
CSP <i>Plus</i>	-4.02 (4.54)	-4.16 (4.67)
Second cohort	4.16 (4.62)	
Parent male	9.27 (6.51)	
Parent age	2.45 (2.25)	
Parent race (Caucasian = 0 African American = 1)	7.88 (5.41)	
Parent Hispanic	0.02 (7.16)	
Student male	11.94** (4.45)	12.08* (4.63)
Student age	-4.18 (2.35)	
Parent live with partner	0.19 (4.69)	
Parent education	3.94 (2.26)	
Household income	3.31 (2.34)	
Student grades	-0.82 (2.26)	-0.29 (2.37)
Emotion symptoms	-1.56 (2.47)	-1.24 (2.61)
Conduct problems	0.66 (2.25)	-0.17 (2.60)
Family affective quality	-2.13 (2.36)	-2.70 (3.16)
Family management	-0.53 (2.13)	1.04 (2.77)

* $p < .05$.** $p < .01$.*B* = unstandardized coefficient, *SE* = standard error.

Note. Sample size is 157, except for single predictor model comparing Caucasian and African American parents for which the sample size is 124. All continuous predictors are *z* scored.