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Starting Well: Facilitating the Middle School Transition

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School-based mental health programming is a viable intervention because it can provide evidenced-based-treatment (EBT) while avoiding the typical service barriers. In this study, 119 students (ages 10 to 12) were randomly assigned to participate in either a 24-session Coping Power Program (CPP) or a control group. Using the Behavior Assessment Scale for Children-2 (BASC-2), teachers reported significant improvements over time for all students (Attention Problems, Hyperactivity, Externalizing Problems, and Withdrawal, and Study Skills). However, teachers reported that students participating in the CPP showed significantly greater improvement than controls (Learning Problems, School Problems, Behavior Symptom Index, Social Skills, and Adaptive Skills). Effect sizes ranged from small (.19 for Withdrawal) to large (.76 for Adaptive Skills). Teacher reports showed greater improvement by the more experienced group leaders. Results validate the use of this EBT as a viable protocol. The improvement in both groups may suggest a spillover effect for untreated controls. The differential effect of group leader suggests that clinical experience may enhance EBT.

KEYWORDS adolescent, evidence-based-treatment, school, mental health

Mental health problems affect millions of school-age children (U.S. Department of Health and Human Services, 2000). Recent data suggest that up to one fifth of children in the United States have a diagnosable mental

disorder, but only a small percentage receive needed mental health services (Burns, Gwaltney, & Bishop, 1995; Costello et al., 1996). Even when caregivers attempt to seek help, they often lack the requisite resources or skills to navigate the complicated maze of mental health treatment. This limited access has resulted in an alarming 80% of affected children and adolescents being unable to receive the care they need (Kataoka, Zhang, & Wells, 2002). Lack of services is especially disheartening in light of meta-analyses of research findings which indicate that, when available, psychological interventions for youth are clinically efficacious and have lasting effects for a variety of psychological problems (Hoag & Burlingame, 1997; Roberts, Lazicki-Puddy, & Johnson, 2003). However, in the absence of timely intervention, children with an early onset of behavioral or emotional problems are at particularly high risk, since they are likely to experience an increase in problems with age, as the developmental trajectory of psychopathology unfolds (Cummings, Davies, & Campbell, 2000).

Although intervention options may be limited, the experienced stress secondary to poverty, changing family structures, substance abuse, and violence appears to be limitless. When these variables interact with the physiological, social, and academic changes that occur during the pivotal middle school years, the cumulative stress may overwhelm the student who is already struggling with an emotional or behavioral disorder.

The challenge thus becomes not whether to intervene, but how best to implement interventions that will have the most effective and sustainable benefits. School-based interventions are a particularly appealing treatment option, as they combine easy accessibility and cost-effectiveness, while removing barriers related to lack of financial or familial resources. Programs and services located within the school system are often the only available source for mental health services for the majority of youth in need of intervention (Burns et al., 1995). A recent research review indicates that school-based mental health programs show treatment efficacy across a range of emotional and behavioral disorders, particularly when services are developmentally specific (Greenberg, Domitrovich, & Bumbarger, 2001; Hoagwood & Erwin, 1997; Rones & Hoagwood, 2000).

Although there is empirical support for the benefits of both individual and group interventions on the psychological adaptation of youth, the use of group intervention has specifically been shown to improve social interaction and coping skills (Edwards, Gfroerer, Flowers, & Whitaker, 2004), anger management (Lochman, Dunn, & Klimes-Dougan, 1993), and drug and alcohol prevention (Schaefer, 1999). There is a solid body of research documenting the power of group interventions, with therapeutic factors unique to the group format including vicarious learning, interpersonal skills building, imitative behavior, and information dissemination (for reviews, see Burlingame, Fuhriman, & Johnson, 2002; Yalom & Leszcz, 2005). The learning opportunities inherent in a group intervention may be especially potent

when considering the transitional developmental tasks of the middle school years.

The sixth-grade year is an especially vulnerable time for the psychological development of the preadolescent, as he or she moves from the relatively contained elementary school environment to the middle school format, which involves rotating class schedules, multiple teachers, and increased exposure to the high-risk behavior of older adolescents. Converging data demonstrate a drop in self-esteem beginning in the early middle school years (Fredricks & Eccles, 2002; Harter, 1999), and preadolescents often experience declines in competence and perceived self-efficacy as they transition from elementary to middle school (Schunk & Pajares, 2002; Urdan & Midgley, 2003). In a cross-sequential study, Jacobs, Lanza, Osgood, Eccles, and Wigfield (2002) found that children from ages 6 to 18 feel less competent, on average, each year in most competency domains. Bullis, Walker, and Sprague (2001) noted that risk-taking behaviors increase during the middle school period, while parental supervision often simultaneously decreases. These combined dynamics may contribute to a perfect storm of vulnerability. Further support for focused intervention for this age group comes from a recently completed study which found that a poor behavior grade received in the sixth grade is a significant predictor of subsequent drop-out status, with only 17% of students with a low behavior grade in the sixth grade completing high school on time or within one additional year (Balfanz & Herzog, 2005).

As Roberts et al. (2003) have emphasized, effective psychotherapy with preadolescents and adolescents must be tailored to their developmental stage, rather than relying on downward applications of adult interventions or upward applications of child programs. A potent example of a school-based, age-tailored program is the Coping Power Program (CPP) designed by Lochman, Wells, and Murray (2007). Outcome research to date is promising in demonstrating reductions in delinquency, school-based aggressive behavior, and substance abuse both at postintervention and at one-year follow-up (Lochman & Wells, 2002b, 2004; Lochman et al., 2007).

Successful interventions have a variety of characteristics in common, including the use of established theoretical frameworks, specific interventions, manualized protocols, and systematic outcome assessments. A recent meta-analysis comparing evidence-based youth psychotherapies (EBT) to usual clinical care found superior outcomes for EBT, although the authors point out that effects fell within small to medium ranges (Weisz, Jensen-Doss, & Hawley, 2006). In addition, manual-based psychotherapies, such as the Coping Power Program, may contribute to more focused, effective, and data-based service delivery (Mansfield & Addis, 2001).

Although outcome evaluations typically focus on the reduction of problematic symptomatology, it is likewise important to assess pro-social factors that may also be impacted (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003). We

believe the development of positive coping skills plays a crucial, protective role in allowing the adolescent to more successfully manage multiple life stressors. Improvements in social skills and problem-solving abilities allow the preadolescent to build a supportive network and engage in appropriate social activities that may ultimately contribute to reduced school drop-out rates as well as other indices of improved adaptive functioning (Hess & Copeland, 2001).

The implication for providers of mental health services within a school setting is clear. Well-timed, well-designed, and well-implemented service delivery in the school setting may exert a significant and positive impact on the mental health of students. Furthermore, the delivery of mental health services in the schools successfully reduces the access problems related to cost, transportation, and the ability to navigate the matrix of mental health services. Finally, school-based interventions may have generalized benefits for the broader school environment, as intervening with youth with emerging behavior problems can also improve the social and academic environment for other students within the system (Conduct Problems Prevention Research Group, 1999).

In addition to the ease of service delivery afforded by implementing programs within the school setting, additional therapeutic potency may occur due to therapeutic spillover effects. Improvements or deteriorations in a relatively small group of students may have systemic implications as the students interact with other members of the school environment. The generalization of positive changes in the identified high-risk adolescent to others in the interpersonal sphere have been identified by Hogue, Dauber, Samoulis, and Liddle (2006), who found that developing pro-social behavior skills in adolescents was associated with more positive family relationship outcomes. In another illustration, a meta-analysis by Woolfenden, Williams, and Peat (2002) suggested that family interventions for conduct-disordered youth may have exerted a spillover effect of reducing future sibling delinquency. Although spillover effects are sometimes viewed as obscuring the "pure" treatment effect of a programmed intervention, a more optimistic view is that spillover effects may actually strengthen ecological validity and the power of the intervention by diffusing positive changes beyond the targeted child per se.

The present investigation was designed to target the highest-risk students in the sixth-grade class and randomly assign them to an intervention group in which they participated in an empirically supported intervention, the Coping Power Program (Lochman et al., 2007). We believed that students participating in the group intervention would, compared to the control group, show decreases in maladaptive behavior and concurrent increases in positive behaviors as indexed by both (a) decreases in behavior problems reported on the BASC-2, and (b) increases in pro-social strategies as indexed by the BASC-2. In order to more fully evaluate the ecological validity of the

intervention, data were collected from both the student participants and their core class teachers.

METHOD

Participants

Participants were 119 students; 63 students (37 male, 26 female) were in the intervention group that involved participation in the 24-session Coping Power Program, and 56 students (35 male, 21 female) were in the control group. All of the students in the control group were in the sixth grade; however, in the intervention group, 12 students were in the fifth grade. The average age of students in the intervention group was 11.59 ($SD = .39$), the average age of students in the control group was 11.43 ($SD = .54$). There was some ethnic diversity, with 63 White students, 51 Hispanic students, 4 Black students, and 1 other (see Table 1).

The program was implemented in four different school districts, using five school sites, and included two middle schools, one kindergarten through grade 5 elementary school, and two kindergarten through grade 8 sites. The participants were selected by teacher referral and then randomly assigned to either the intervention or control group. The referred students were placed into groups of five to six participants, which created a total of ten groups across the four school districts. The parents/guardians of the students provided informed consent (in their primary language), with students also providing their assent for participation in the study.

Procedures

The Coping Power Program was selected as our intervention of choice because it is a comprehensive model integrating social and cognitive components across the domains of social competence, self regulation, school bonding, and caregiver involvement (Lochman & Wells, 2002a). In addition, the CPP program integrates ongoing systemic feedback from teachers and parents as well as the student's self-report of progress. The CPP offers 34 child and 16 parent sessions, typically implemented across two school years.

TABLE 1 Demographics

	Total	Male	Female	Age Mean	*SD*	White	Hispanic	Black	Other
Intervention group	63	37	26	11.59	.39	29	31	3	
Control group	56	35	21	11.43	.54	34	20	1	1
Total	119	72	47	11.51	.46	63	51	4	1

However, there is a program option for 24 child sessions with 10 parent sessions that may be implemented across one school year. In collaboration with the school administrators, we chose the 24 child-session program with the 10 parent sessions. Unfortunately, there was not sufficient parent response to conduct the parent sessions. The supervising psychologists invited parents to attend by sending each parent an invitation and a program brochure which included a description of the parent and child sessions. In addition, the parents who had phone access were contacted by the psychologists and/or school administration. Five parents reported they would attend but did not arrive for the scheduled sessions. A follow-up survey of 14 parents identified a variety of barriers to group participation, including transportation, child care, and busy schedules.

The CPP groups were facilitated by seven master's-level graduate assistants and two clinical psychologists. To ensure program fidelity, 8 of 9 program facilitators attended a 2-day training and participated in ongoing consultation with the doctoral-level research assistant who was a member of the program developer's research team. In addition, the graduate student facilitators received weekly or biweekly supervision by the two psychologists who led the project.

Participants were recruited by teacher referral. Teachers who taught a three-period block of core classes were asked to submit the names of students they perceived to be at risk for behavioral trouble at school. Then the students were randomly assigned to either the intervention group (which participated in the 24-week CPP) or the control group (which did not participate in CPP but still received any services or support normally provided by the school districts). Following random assignment to the intervention or control groups, the potential CPP participants met with the facilitators and received a program overview and were given the informed consent and assent material to give to their parents. Following the return of the consent forms, students were randomly assigned to their specific intervention group.

The intervention groups met weekly during the lunch/recess period, and all facilitators followed the manualized intervention protocol of the CPP, which included standardized content, activities, and homework. Any questions or concerns were addressed in the supervision sessions with the psychologists who were the primary investigators as well as facilitators of their own groups.

Measures

During the first and final sessions, each student participant in the intervention group completed the self-report version of the Behavior Assessment Scale for Children-2 (BASC-2). According to the students' age they completed either the Child Self-Report (Child-SR) or the Adolescent Self-Report

(Adolescent-SR). At the beginning and the end of the CPP intervention, the teachers completed the Teacher-Report (TR) form of the BASC-2 for students in both the intervention and control groups. We were not given permission for the control group of students to complete the self-report form of the BASC-2. Although school administrators and all parents/guardians gave permission for the teachers to complete the pre–post assessment for intervention and control groups, they were unwilling to have the students in the control groups devote time to completing the measures. The BASC-2 was chosen for its familiarity to our school personnel as well as its ability to assess both clinical symptoms and adaptive skills.

The Behavior Assessment System for Children-2 (Reynolds & Kamphaus, 2004) was developed to assess the behavior and self-perception of children and young adults (2 to 25 years of age). It is a multimethod as well as multidimensional system in that it "measures numerous aspects of behavior and personality, including positive (adaptive) as well as negative (clinical) dimensions" (Reynolds & Kamphaus, 2004, p. 1). There are two observer rating scales (parent and teacher) that assess frequency and intensity of observable behaviors. In addition, there are three age-specific self-report scales (Child-SR, Adolescent-SR, and Young Adult-SR) that assess self-perceived attitudes and behaviors on both clinical and adaptive dimensions.

The TR form of the BASC-2 includes 139 items that assess the students' observable behaviors. The Child-SR version of the BASC-2 has 139 items, while the Adolescent-SR version has 176 items. Completion time for the forms ranged from 10 to 30 minutes. Although there is much similarity, the three forms (TR, Child-SR, and Adolescent-SR) vary slightly in content and clinical scales.

Internal consistency of the Teacher-Report form ranges from .90 to .97 on the composite scores to .81 to .95 for the scale scores. The Adolescent Self-Report has internal consistency of .84 to .96 for the composite scores and .67 to .88 for the scale scores, with test–retest reliability of .81 to .92 for the composites and .64 to .90 for the scale scores. The Child Self-Report shows test–retest reliability of .48 to .70 for the composite scores and .23 to .74 for the scale scores. Content validity came from teachers, parents, children, psychologists, *DSM–IV–TR* criteria, and other instruments (agsnet.com). Concurrent validity was established using "groups of children with preexisting clinical diagnoses tending to have distinct BASC-2 profiles" (agsnet.com) The Teacher-Report form was correlated with seven other similar teacher report rating forms in existence (e.g., Achenbach System of Empirically Based Assessment [ASEBA], BASC, Conners Teacher Rating Scale [CTRS-R]). The Adolescent-SR and the Child-SR were correlated with eight similar self-report rating forms (e.g., ASEBA, Connors/Wells Adolescent Self-report of Symptoms (CASS), Minnesota Multiphasic Personality Inventory [MMPI-2], Beck Depression Inventory–II [BDI–II]).

RESULTS

The following results include a summary of the descriptive data and the analysis of the Teacher-Report data from the BASC-2. The results of the TR analysis are divided according to main effects, interactions, and differences in responses based on group leader.

Descriptive Data

Random assignment was used to establish the intervention and control groups, and the study was designed according to a Solomon four-group research design model. The design included the independent variables of time (as measured by the pre–post BASC-2) and group assignment (intervention versus control); the dependent variables included the teachers' observations (as measured by the BASC-2, Teacher-Report form) and the student responses (as measured by the BASC-2 Child or Adolescent Self-Report form). Consistent with the Solomon research design, we used a one-way ANOVA of the Teacher-Report data to confirm that the students in the intervention and control groups were equivalent before we began data analysis. Furthermore, the descriptive data also showed baseline equivalency across groups, so we were able to collapse data across gender, race and age.

Analysis of Teacher-Report Data

The largest data set was generated by the teachers' responses on the TR form of the BASC-2. We analyzed the data using a repeated-measures ANOVA with time as the repeated measure or within-group variable, and group assignment as the between-group variable. Because the same TR form is used for both the younger and older students, and there was group equivalency at baseline for both the older and younger students, we aggregated the TR data across student age. The TR form was completed as a pre–post measure for both intervention and control groups ($N = 114$). In contrast, the Self-Report form was completed by only the intervention group participants ($n = 63$),

The repeated-measures ANOVA revealed significant main effects for time on a range of problem behaviors scales and a pro-social scale. In other words, the teachers noticed statistically significant changes in behavior over time for all of the students, regardless of whether they were in the intervention or the control group. Of note, the analyses also showed medium to large effect sizes (ES) for these changes over time. Specifically, each of the problem scales for Attention Problems and Hyperactivity showed a significant decrease in problem behaviors with a corresponding medium ES (see

TABLE 2 Main Effect for Time Using Repeated Measures ANOVA from the TR Form of BASC-2

	Source	*df*	*F*	η^2	*p*	*d*
Attention Problems			Between Subjects			
	Intercept	1	4886.7	0.98	0.00	—
	Assignment	1	0.77	0.01	0.38	—
	Error	112	[161.54]			
			Within Subjects			
	Time	1	6.58	0.06	.01**	0.22
	Time × Assignment	1	3.32	0.03	0.07	—
	Error (Time)	112	[45.17]			
			Between Subjects			
Hyperactivity	Intercept	1	2751.8	0.96	0.00	—
	Assignment	1	2.96	0.03	0.88	—
	Error	112	[263.89]			
			Within Subjects			
	Time	1	19.32	0.15	0.00***	0.29
	Time × Assignment	1	0.05	0.00	0.82	—
	Error (Time)	112	[38.32]			
			Between Subjects			
Externalizing	Intercept	1	3313.2	0.97	0.00	—
	Assignment	1	3.05	0.03	0.08	—
	Error	112	[206.05]			
			Within Subjects			
	Time	1	5.84	0.05	0.02*	0.22
	Time × Assignment	1	1.53	0.01	0.22	—
	Error (Time)	112	[69.54]			
			Between Subjects			
Withdrawal	Intercept	1	3726.9	0.97	0.00	—
	Assignment	1	1.64	0.02	0.20	—
	Error	111	[183.04]			
			Within Subjects			
	Time	1	5.37	0.05	0.02*	0.19
	Time × Assignment	1	2.35	0.02	0.13	—
	Error (Time)	111	[44.21]			
			Between Subjects			
Study Skills	Intercept	1	4784.6	0.98	0.00	—
	Assignment	1	0.14	0.01	0.71	—
	Error	111	[79.64]			
			Within Subjects			
	Time	1	16.82	0.13	0.00***	0.43
	Time × Assignment	1	.95	0.01	0.33	—
	Error (Time)	111	[37.30]			

Note: Values enclosed in brackets represent mean square errors.
*$p < .05$, **$p < .01$, ***$p < .001$.

Table 2). The Externalizing Behaviors composite score, which includes both the Attention Problems and Hyperactivity scales as well as other problem behaviors, also showed a significant decrease with a corresponding medium ES. In exploring the scales within the Internalizing Behaviors composite, the

teachers noted a significant decrease only in the Withdrawal scale. The Study Skills scale was the only pro-social scale showing a significant improvement with a corresponding large ES (see Table 2).

In addition to the above main effects for time, the repeated-measures ANOVA revealed a significant interaction between time and group assignment for the students in the Coping Power Program intervention group. According to the teacher report, group participation appeared to enhance the positive impact of time, with students in the CPP group showing significantly more improvement over time than the students in the control group (see Table 3).

This difference was evident in the significant interaction between time and group assignment on scales measuring problem behaviors and pro-social behaviors. Furthermore the effect size of these differences ranged from small to large. On the scales measuring problem behaviors, the data showed a decrease in the Depression scale with a corresponding medium ES. This decrease also contributed to the significant decrease in the Internalizing Behaviors composite score.

Consistent with the CPP focus on school skills, the data showed that group assignment and time interacted to positively affect the school-specific behaviors measured by the Learning Problems and School Problems scales. Furthermore, the overall Behavioral Symptoms Index composite score showed a significant decrease for students in the intervention group. The development of pro-social skills was also a central part of the CPP curriculum. The data reflected this emphasis by also showing an improvement in Social Skills and Functional Communication, with a significant and large ES for the Adaptive Skills composite score (see Table 3).

Group Leader Differences

Following the analysis of the independent variables, an additional one-way ANOVA showed that the teacher report of student behavior varied according to their CPP group leader. When the intervention groups were divided according to the experience of the group leader (graduate students versus licensed psychologists) the TR data revealed that within the CPP groups students showed greater behavior change if they had been in the intervention groups led by the more experienced leader. These differences were seen in the teachers' responses indicating a significant decrease on the problem scale scores of Somatization and Depression and the composite scores for Internalizing Problems and Behavior Symptom Index. In addition, the pro-social scales of Adaptability and Social Skills showed significant improvements as a function of group leader, with moderate to strong ES (See Table 4).

As shown in the above results, the teachers perceived significant and positive improvements over time in the behaviors of both the control and

TABLE 3 Repeated Measures ANOVA: Interaction Between Time and Group Assignment on TR of BASC-2

	Source	*df*	*F*	η^2	*p*	*d*
Depression			Between Subjects			
	Intercept	1	1774.6	0.94	0.00	—
	Assignment	1	0.003	0.00	0.96	—
	Error	112	[415.93]			
			Within Subjects			
	Time	1	3.67	0.03	0.06	—
	Time × Assignment	1	14.68	0.12	0.00*	0.22
	Error (Time)	112	[60.94]			
Internalizing			Between Subjects			
	Intercept	1	3670.2	0.97	0.00	—
	Assignment	1	0.14	0.00	0.71	—
	Error	112	[191.82]			
			Within Subjects			
	Time	1	2.36	0.02	0.13	—
	Time × Assignment	1	6.11	0.05	0.02*	0.32
	Error (Time)	112	[74.77]			
Learning Problems			Between Subjects			
	Intercept	1	3710.9	0.97	0.00	—
	Assignment	1	0.06	0.00	0.81	—
	Error	112	[203.9]			
			Within Subjects			
	Time	1	0.65	0.01	0.42	—
	Time × Assignment	1	9.87	0.08	.002*	0.20
	Error (Time)	112	[42.45]			
School Problems			Between Subjects			
	Intercept	1	4280.5	0.98	0.00	—
	Assignment	1	0.21	0.00	0.65	—
	Error	112	[175.80]			
			Within Subjects			
	Time	1	15.98	0.13	0.00	0.33
	Time × Assignment	1	5.53	0.05	0.02*	0.26
	Error (Time)	112	[45.73]			
Index (BSI)			Between Subjects			
	Intercept	1	3168.2	.97	0.00	—
	Assignment	1	1.04	0.01	0.31	—
	Error	111	[224.07]			
			Within Subjects			
	Time	1	19.80	0.15	0.00	0.37
	Time × Assignment	1	8.89	0.07	.004*	0.42
	Error (Time)	111	[60.90]			
Social Skills			Between Subjects			
	Intercept	1	2781.5	0.96	0.00	—
	Assignment	1	1.48	0.01	0.23	—
	Error	112	[154.76]			
			Within Subjects			
	Time	1	0.76	0.01	0.39	—
	Time × Assignment	1	5.23	0.05	0.02*	0.45
	Error (Time)	112	[42.02]			

(Continued on next page)

TABLE 3 Repeated Measures ANOVA: Interaction Between Time and Group Assignment on TR of BASC-2 *(Continued)*

	Source	*df*	*F*	η^2	*p*	*d*
Adaptive Skills			Between Subjects			
	Intercept	1	1326.7	0.96	0.00	—
	Assignment	1	2.18	0.04	0.15	—
	Error	57	[128.60]			
			Within Subjects			
	Time	1	1.97	0.03	0.17	—
	Time × Assignment	1	14.67	0.21	0.00*	0.76
	Error (Time)	57	[24.16]			
Functional Communication			Between Subjects			
	Intercept	1	3368.9	0.97	0.00	—
	Assignment	1	0.33	0.00	0.57	—
	Error	111	[120.64]			
			Within Subjects			
	Time	1	0.00	0.00	0.98	—
	Time × Assignment	1	3.75	0.03	.055	0.27
	Error (Time)	111	[30.50]			

Note: Values enclosed in brackets represent mean square errors.
*$p < .05$, **$p < .01$, ***$p < .001$.

TABLE 4 Analysis of Variance for Group Leader from BASC-2 Teacher Report

Source	*df*	*F*	h^2	*p*	*d*
			Between Subjects		
Problem Scales					
Somatization	1	4.69	.26	.035*	.53
Within group	50				
Total	51				
Depression	1	8.40	.36	.005**	.78
Within group	52				
Total	53				
Internalizing Problems	1	7.80	.42	.007**	.92
Within group	50				
Total	51				
Behavior Symptom Index	1	8.43	.29	.005**	.61
Within group	51				
Total	52				
Pro-Social Scales					
Social Skills	1	4.16	.38	.046*	.81
Within group	52				
Total	53				
Adaptability	1	9.95	.34	.003**	.71
Within group	52				
Total	53				

*$p < .05$, **$p < .01$, ***$p < .001$.

intervention groups. Furthermore, the significant interaction effects demonstrated that the impact of time was enhanced by participation in the CPP intervention group. Surprisingly, the following section shows that the students did not share their teachers' perception of behavior changes in either their problem or pro-social behaviors.

Student Self-Report Data

As described earlier, the self report measures (Child Self-Report and Adolescent Self-Report) have slightly different content from each other and from the TR form. Furthermore, as described in the Methods section, we did not have SR data for the control group. We used paired sample *t* tests to compare pre- and postintervention responses on the BASC-2. The initial analysis of all of the SR data from the intervention group ($n = 63$) did not show significant differences between the pre- and the postintervention scores.

Next, we divided the pre–post data into two groups and analyzed these data according to the participant's age. The Child Self-Report form of the BASC-2 was used to assess the responses of the younger group of 10- and 11-year-old participants ($n = 32$), and the Adolescent Self-Report was used to assess the responses of the older group, which included participants older than age 11 ($n = 31$). The paired sample *t* test for the Child-SR showed a significant but small difference on the self-reliance subscale (pretest mean score 43.88, $SD = 8.81$, posttest mean score of 46.41, $SD = 8.3$, $t = -2.24$, $df = 31$, $p = .033$). The paired sample *t* test for the adolescent self-report data did not show any significant differences between the pre- and postintervention.

DISCUSSION

The current study adds to the growing body of literature demonstrating both the practical feasibility and the clinical utility of implementing group interventions at the critical developmental period of the middle school years. Research continues to point to the vulnerability of the middle school transition as well as to the receptivity of preteens to developmentally sensitive intervention programs. Previous research documented the effectiveness of the 48-session Coping Power Program protocol, and our results validated the effectiveness of the abbreviated 24-session protocol. According to teacher report, the preteens showed a significant decrease in maladaptive behaviors and a corresponding increase in pro-social behaviors relevant to school success. As such, the current study demonstrates ecological validity for an evidenced-based treatment intervention within the middle school milieu. The effectiveness of this intervention occurred in spite of the lack of participation in the 10 parent sessions.

Interestingly, teachers viewed all identified high-risk students, those in both intervention and control groups, as improving their adaptive skills throughout the school year. Improvements were particularly salient in decreases reported for attentional problems, hyperactivity, and withdrawal, and increases in study skills. These results initially suggest that as students progress through the year, gradual adjustments and developmental maturation may have occurred in areas assessed by the outcome measures as students developed mastery during the middle school transition. However, since this hypothesis is in contrast to much of the developmental literature reporting continued decreases in competence domains and a natural developmental trajectory of increased dysfunction generally experienced by this age group (Jacobs et al., 2002), it is more plausible that other factors influenced these results.

We posit that two alternate mechanisms are more likely responsible for these findings. First, the monitoring of behavior in and of itself may have contributed to perceived changes. As teachers involved in the study followed the identified students' progress they may have become more generally sensitized to the academic and behavioral progress of the control students as well. Second, our results may reflect the positive spillover of group participation. As group participants demonstrated an improvement in adaptive skills and a decrease in dysfunctional behaviors, the overall classroom environment may have improved, with less behavioral disruption and more appropriate behavior evidenced by the identified high-risk students contributing to a more adaptive classroom milieu for all class participants.

Although teachers reported improvements for all identified students over the course of the school year, the interaction effects highlight the differential response of those students participating in the CPP. Specifically, students in the intervention group showed greater decreases in depressive symptoms, learning difficulties, and school problems, while concurrently developing more positive social skills and functional communication than the control students. The increase of the composite adaptive skills score, including improvements in both social skills and functional communication, is of particular note, as the development of protective coping skills may be pivotal to the preadolescents' ability to negotiate increasingly complex school and social demands. The small to large effect sizes found in our results further validate the strength of school-based group interventions.

The acquisition of positive skills for negotiating the social and academic spheres within the middle school environment may be an especially powerful mediating factor on these preteens' subsequent development. It is impossible to foresee all potentially stressful and demanding situations the preteens will encounter through their developmental trajectory. However, by providing the preteen with a toolbox of empirically validated skills the chance of successfully navigating the increasingly complex emotional and educational demands may be notably increased.

Although we were disappointed not to find more self-reported changes from student participants, the report of greater self-reliance by the end of the program for young adolescents is promising, as research demonstrates a link between higher self-efficacy and academic achievements (Pajares, 1996). Research using academic or domain-specific measures of competence shows that self-perception of competence begins to decline prior to the seventh grade, with decreases in self-competence being especially evident in during the transition to middle school (Eccles, Wigfield, & Schiefele, 1998; Jacobs et al., 2002). The current study suggests that participation in a school-based program is effective in countering this deleterious trend in self-efficacy. This finding is congruent with the instructional content of the CPP, which is designed to foster more adaptive coping skills and proactive strategies. As the middle schoolers developed a broader skills repertoire and reinforced these skills through extensive practice and generalization, they may have increasingly viewed themselves as becoming more competent and self-efficacious.

Current results further indicate that while the evidenced-based group format provides a potent clinical intervention, treatment effects may be further strengthened by the effects of clinical expertise. Although all group leaders received extensive standardized training, teachers reported significantly more positive behaviors for children participating in the groups of more experienced leaders. Although group participation, overall, was linked to more adaptive outcomes, the presence of a more experienced clinician as group leader potentiated the effectiveness of the structured group intervention, with those students assigned to groups with more seasoned professionals experiencing greater adaptive change. Our results are congruent with a recent study by Davidson et al. (2004) which found that in the implementation of manual-assisted cognitive therapy all patients in the intervention group improved, but patients of the more experienced therapists had less recurrence of self-harm behavior. In addition, in a study of the effectiveness of group cognitive-behavior therapy for schizophrenic patients, Wykes et al. (2005) found that relative to the control group, all CBT group participants showed improved social functioning, but stronger intervention effects were found in groups led by more experienced therapists.

Previous clinical training may have been particularly helpful in the prioritization of the most pivotal program material within the shorter group time frame dictated by the school schedule, leading to more skillful implementation of the manualized program. Past training in other group interventions held by the psychologists in the study may also have helped maximize the effect of group dynamics. The complex interplay between therapist expertise and standardized interventions is eloquently stated by Hoglend (1999): "skillful therapists use the techniques prescribed by the therapy method or manual, but in a flexible and competent way" (p. 259).

Limitations

Although this program yielded significant results, limitations of this research included the scheduling of the group during lunch period, which limited the length of the group and may have unintentionally created a disincentive as the students missed the opportunity to socialize with peers not in the group. Furthermore, although teachers were not specifically given the names of the group leaders and student assignments, some of the teachers were aware of the identity of the group leader and this may have influenced their perceptions. Finally, the lack of parent participation in the 10 CPP parent sessions may have limited the development and reinforcement of new coping skills for some of the students.

Suggestions for Future Research

Since the current focus was on the viability and effectiveness of an evidence-based group intervention during the middle school transition, no alternate intervention group was included. Future research may want to include a more general process group to explore the supportive effects of receiving services versus the specific effects inherent in the Coping Power Program. To further investigate the possibility of therapeutic spillover within school-based programs, future studies may also include two control groups, the first containing students within the targeted students' core class, and the second containing students with whom the targeted students have minimal daily contact. Most important, future research will want to identify and resolve the barriers that prevent parent participation. Parent involvement could maximize the effect of this intervention, yielding sustainable improvements in students' behavior.

Summary

The cost-effectiveness and implementation ease of the Coping Power Program with its positive clinical results adds support to the clinical efficacy of implementing such programs within the school setting. The current study further demonstrates the feasibility and viability of a time-limited, 24-session intervention during the pivotal middle school years.

Clearly, the goal of a pivotally timed intervention is to decrease dysfunctional development while augmenting adaptive development. The critical tasks associated with the middle school years reinforce the urgency of intervening at this maturational moment when there are multiple forces at work to determine future developmental trajectories.

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