

# Prevention of Depressive Symptoms in Preadolescent Children of Divorce

Lynn S. Zubernis  
Kimberly Wright Cassidy  
Jane E. Gillham  
Karen J. Reivich  
Lisa H. Jaycox

**ABSTRACT.** This study investigated the efficacy of an intervention program (the Depression Prevention Program for Children), which was successful overall in preventing depressive symptoms in 5th and 6th grade children, for a subset of those children—those whose parents have divorced. The 12-week program taught cognitive and social problem solving skills to children in group sessions conducted in their middle schools. There were 59 children in the treatment group—thirty-one (31) children from intact families and 28 children whose parents were divorced. The children completed the Children's Depression Inventory at pretest, posttest, and at 6-month intervals after completion for a 2-year period. The program was effective in preventing depressive symptoms in both groups. However, there was a significant group  $\times$  time interaction, indicating that for children of divorce, the effectiveness may begin to diminish over time. These findings are discussed in terms of the various factors which might influence the response of children of divorce to this and other interventions. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: [getinfo@haworthpressinc.com](mailto:getinfo@haworthpressinc.com)]*

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Lynn S. Zubernis, MA, is a graduate student and Kimberly Wright Cassidy, PhD, is on the faculty, both with Bryn Mawr College. Jane E. Gillham, PhD, and Karen J. Reivich, PhD, are both on the faculty, University of Pennsylvania. Lisa H. Jaycox, PhD, is on the faculty, Allegheny University of the Health Sciences.

Address correspondence to: Lynn S. Zubernis, Bryn Mawr College, Department of Psychology at West House, 101 North Merion Avenue, Bryn Mawr, PA 19010.

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Studies which have examined the consequences of parental divorce on children have provided evidence that divorce is associated with a wide range of adverse outcomes in affective, behavioral, psychophysiological and cognitive domains (Hetherington, Cox, & Cox, 1985; Peterson & Zill, 1986). While some studies have reported favorable outcomes in certain cases (Barber & Eccles, 1992; Wallerstein & Kelly, 1980), many more have found unfavorable outcomes (Amato & Keith, 1991; Gately & Schwebel, 1991).

One of the most common problems that children of divorce have been found to experience is depression. Many studies have found children of divorce to be significantly more depressed than children of intact families (Beer, 1989; Fendrich, Warner, & Weissman, 1990), although others have found that young adults with divorced parents do not differ from aequates from intact families in measures of depression (Drill, 1987; Franklin, Janoff-Bulman, & Roberts, 1990). Some studies have found that the loss of a parent through divorce results in an even higher incidence of depression than loss of a parent through death (Amato & Keith, 1991; Huntley, Phelps & Rehm, 1987). Some children report feeling rejected, unloved, and powerless, and experience strong feelings of deprivation and a sense of desertion (Oppawsky, 1991).

The present study examines the effectiveness of an intervention program which was aimed at preventing depressive symptoms in 5th and 6th grade children, and looks at how this program affected the children of divorce who were participants. Before examining the components of the program, however, we briefly review the various factors which have been found to influence children's adjustment after their parents' divorce.

### ***FACTORS AFFECTING LONG TERM ADJUSTMENT***

Two decades ago, divorce was believed to be a relatively brief crisis which resolved itself within a two-year period. However, longitudinal studies have now shown that for a significant number of children, this is not the case (Amato & Keith, 1991; Brown, Eichenberger, Portes, & Christensen, 1992; Huntley et al., 1987; Pedro-Carroll & Cowen,

1985; Wyman, Cowen, Hightower, & Pedro-Carroll, 1985). Wallerstein and Kelly (1980), in their well-known longitudinal study, followed sixty families, psychologically healthy at the time of separation, for 10 to 15 years post-divorce. Five years after the divorce, Wallerstein (1989) found that only 34% of the children in her sample were doing well, and 10 years post-divorce, 41% continued to do poorly. This statistic is even more troubling because these were children who had been functioning well prior to the divorce. Perhaps divorce is best conceptualized as a stressful process which can go on for years, consisting not just of a single discrete event, but a series of subsequent complications such as restructuring of living arrangements, changes in lifestyle, and redefined roles and relationships.

The adjustment of their parents after the divorce is one factor which affects children's adjustment (Amato & Keith, 1991; Kalter, Kloner, Schreier, & Okla, 1989; Kurtz & Derevensky, 1993). Divorce is associated with increased risk of depression for both parents (Forehand, McCombs, Wierson, Brody, & Fauber, 1990; Warner, Weissman, Fendrich, Wickramaratne, & Moreau, 1992), and children of parents who are depressed have been shown to have impaired functioning, including internalizing and externalizing problems (Forehand, 1993). Another important risk factor for children is the amount of stress their custodial parent is experiencing (Nelson, 1993; Stolberg & Maher, 1990). Single parent mothers have been found to have higher levels of life events and chronic stressors than married mothers (Hetherington, 1993). Parental depression, as well as levels of conflict and stress, may influence child adjustment by their negative impact on parenting skills and discipline practices. Depression and stress can significantly reduce the parent's energy level, increase irritability, and distract parents from children's concerns (DeBaryshe, Patterson, & Capaldi, 1993; Emery & O'Leary, 1982; Stolberg & Bush, 1985; Wentzel, Feldman, & Weinberger, 1991).

In part as a result of these parental adjustment and parenting skills problems, the parent/child relationship may also be adversely affected by divorce (Hetherington, 1991; 1993). In a 1986 study of 1,400 children ages 12-16, Peterson and Zill found that marital disruption undermined the child's relationship with each parent, and the weakened relationships in turn contributed to other negative outcomes, including depression. Unfortunately, the effects of parental divorce on the parent/child relationship appear to persist for many years. In He-

therington's 1993 longitudinal study, conflict and negativity between mothers and children remained higher in divorced families than in intact families well into the teenage years. Similarly, Emery (1995) found that contact with the non-custodial father declined rapidly with time, and the father/child relationship worsened as well. From age 12 to 16, 33% of children of divorce reported a bad relationship with their father. By age 18 to 22, 65% report a bad relationship, as compared to only 25% of children in intact families.

In addition, conflict between parents often persists or even worsens after divorce. High levels of conflict were found to characterize most divorces in a study by Oppawsky (1991), and in her longitudinal study, Hetherington (1993) found that cooperative parenting occurred in less than 20% of divorced families. Children who experience high levels of family conflict in both intact and divorced families are more likely to be diagnosed with depression. In fact, some researchers have suggested that it is the level of conflict, not the actual divorce, which most affects children's adjustment (Rutter, 1994). Interparental conflict and hostility are associated with depression, as well as anxiety, low self-esteem, noncompliance, aggression and social withdrawal in children of both intact and divorced families (Camara & Resnick, 1989; Portes, Howell, Brown, Eichenberg & Mas, 1992; Stolberg & Bush, 1985).

Parental conflict may impact children through the creation of a stressful home environment, by causing emotional distress in children subjected to their parents' fighting, and by drawing the child into the middle of the dispute (Forehand, 1993; Portes et al., 1992). A 1987 longitudinal study of children involved in custody disputes found that level of interparental aggression, parents' involvement of the child in the dispute, role reversals such as children taking care of or comforting a distressed parent, or children being used as messengers between parents predicted high levels of child depression (Johnston, Gonzalez, & Campbell, 1987).

Parents caught up in conflict may also model ineffective and inappropriate behaviors for their children, and provide negative models of conflict resolution (Emery, 1995; Wyman et al., 1985). There may be a persistent adverse effect on the child's coping skills. Children caught in the middle of parental conflicts have been found to exhibit anxious attachment to one or both parents, and expressed exaggerated fears of being abandoned if they admitted positive feelings about the other

parent. Withdrawal often became the safest response to their loyalty dilemmas (Johnston, Gonzalez, & Campbell, 1987). Over time, these defensive, passive modes of response can consolidate into maladaptive coping styles (Portes, Haas, & Brown, 1991).

A general climate of anger and conflict in the family was more strongly associated with psychological adjustment in preadolescent and adolescent children than simply the level of marital conflict or interparental conflict in a 1993 study by Jaycox and Repetti. The child's perception of the level of conflict was more strongly related to adjustment than the marital conflict reported by the parents. Since in divorced families, conflict between parents often occurs at transition times with the children present, these children may have increased perception of conflict. Thus, interparental conflict in divorced families may be even more likely to create a family emotional climate of anger and thus be more likely to affect children's adjustment.

In addition to these family functioning factors which influence children's adjustment after a divorce, there are environmental factors. Parental divorce increases the probability that both children and parents will experience a variety of stressful life changes. Negative life events are associated with both the precipitation and maintenance of internalizing and externalizing behavior for children who have experienced parental divorce. The number of *change* events, as well as the number of negative events, after a divorce have been shown to be positively correlated with psychological problems in children (Fogas, Wolchik, Braver, Freedom, & Bay, 1992; Mullins, Seigel, & Hodges, 1985; Sandler, Wolchik, Braver, & Fogas, 1991; Stolberg & Garrison, 1985). Children of divorce have a greater probability of encountering multiple stressful life changes, such as economic decline (Hetherington, 1989; Nelson, 1993), relocation (Harris, 1995), changes in child-care arrangements (Laird & Hamilton, 1995), and decreased social support networks (Bouchard & Drapeau, 1991; Wyman et al., 1985).

In addition to environmental factors, certain individual factors influence children's adjustment, including the child's coping style (Armistead, McCombs, Forehand, Wierson, Long, & Fauber, 1990; Sandler, Tein, & West, 1994), and their ability to make sense of the divorce and view their own role in it realistically. In order to resolve fears of being abandoned and self-blame, children also need to regain the belief that they have some control over their world (Fogas et al., 1992; Mullins, Siegel, & Hodges, 1985).

The concept of explanatory or attributional style also appears to be an important individual factor affecting how people cope with adverse events in their lives. Children with a negative explanatory style tend to exaggerate the importance of negative life events, personalize their own responsibility, overgeneralize the negative effects to other domains, and catastrophize about outcome. This tendency to make internal, global and stable attributions for negative events creates a vulnerability for depression (Garber, Weiss, & Shanley, 1993; Peterson, 1991; Simons, Angell, Monroe, & Thase, 1993; Spangler, Simons, Monroe, & Thase, 1993). Children of divorce may be particularly vulnerable to developing a pessimistic explanatory style, which is believed to be at least partially learned (Colligan, Offord, Malinchoc, Schulman & Seligman, 1994). Parents who are depressed after a divorce may also model a pessimistic explanatory style.

Some researchers believe that such cognitive changes in children of divorce may be particularly persistent (Fallon & Coffman, 1991; Roseby, 1995). Working from attachment theory, Roseby (1995) concluded that children of divorce construct inflexible ways of viewing the world which are resistant to change. The child's fears of loss and abandonment become the basis for inflexible rules and expectations in the internal working models the child constructs. The child then uses these internal working models to interpret the world, and future experience, through selective processing. The child's processing becomes constricted as an ingrained way of coping, resulting in a rigid set of expectations which protect the child but make corrective experiences unlikely.

As the above mentioned studies make clear, the problems of children of divorce and the various factors which influence their adjustment have been well studied. However, relatively little research has been conducted to determine the efficacy of various therapeutic interventions in which they participate, and the studies which have been reported are inconsistent. Some of these interventions—which are specifically targeted to children of divorce—have been successful in improving depressive symptoms (Burnette, 1996; Crosbie-Burnette & Newcomer, 1990; Pedro-Carroll & Cowen, 1985), while others have not (Jupp & Purcell, 1992; Roseby & Deutsch, 1985; Stolberg & Garrison, 1985; Stolberg & Maher, 1990). But many children of divorce do not participate in interventions designed specifically for them—rather, they are included in group interventions not targeted to

divorce issues, which have been developed to remediate depression, behavioral problems, or academic difficulties in more heterogeneous groups of children. More recently, preventive programs have also been developed in an attempt to prevent the development of problems such as alcohol/drug abuse, social skills deficits, or poor school performance. Because of increased recognition of the prevalence and seriousness of depression in children and adolescents, several preventive programs have recently been developed to attempt to prevent depression as well (Burnette, 1996; Jaycox, Reivich, Gillham, & Seligman, 1994).

The current study investigates the effectiveness of one non-divorce targeted preventive program (the Depression Prevention Program) on children of divorce. The long term follow up study of this program found that it was successful overall in preventing depressive symptoms in 5th and 6th grade children over a two-year follow-up period (Gillham, Reivich, Jaycox & Seligman, 1995). There were also positive short term benefits, with improvements in both level of depressive symptoms and attributional style. However, these data will not be discussed here, as the control group in the short-term study was different than the current one (see Jaycox, Reivich, Gillham & Seligman, 1994, for the results of the short-term follow-up). In the long-term study, the prevention group (comprised of children of both divorced and intact families) reported fewer depressive symptoms than a no-treatment control group at every time of measurement through the 24-month follow-up. The difference was significant at all three long-term follow-up points (12, 18, and 24 months). The control group children showed a greater increase in depressive symptoms with time than the prevention group, although depressive symptoms increased in both groups as the children got older and moved further away from treatment.

Gillham et al. (1995) also found that the program improved children's explanatory style—the prevention group had a more optimistic explanatory style than the control group, and the difference was significant at all three long-term follow-ups (12, 18 and 24 months). That is, the children who participated in the program were less likely to explain negative events as stable, global and internally caused, and thus were less pessimistic. Further, children's ability to apply more temporary explanations to negative events mediated the impact of treatment in reducing depression.

While the Depression Prevention Program was effective overall, we expected that the program would be less effective for the children of divorce who participated for several reasons: First, the impact of parental factors, such as depression, inconsistent discipline, diminished parenting skills, interparental conflict, and parent-child relationship problems, would not be effectively addressed in the intervention and would continue to exert an adverse influence on child adjustment. Thus, our first hypothesis was that the program would not be as effective for those children in the prevention group whose parents were divorced, compared to children from intact families.

Second, even if children of divorce were able to benefit from the intervention, the challenge of adapting to a continuing stream of stressful life events could overwhelm the child's ability to cope if life change events became too numerous. The techniques taught by the program might be insufficient to prevent depression if the child continued to be faced with repeated stressors, such as conflict between parents, economic stress, changes in living arrangements and lifestyle, restructuring of family roles through remarriage, and other events which are outside of the child's control.

Finally, cognitive changes resulting from parental divorce and the post-divorce family situation might be resistant to lasting change. Modifications to the deeply ingrained negative world views of children of divorce would be difficult to maintain after children returned to the environments which produced the pessimistic views in the first place. Based on the latter two expectations, our second hypothesis was that the children of divorce who participated in the program would show a greater increase in depressive symptoms with time than children from intact families in the prevention group.

### **METHOD**

The measures for this study were administered as part of a larger research study investigating the effectiveness of a program to prevent depressive symptoms among at-risk 10- to 13-year-old children, the Depression Prevention Program for Children ("DPP"). This 12-week cognitive behavioral therapy program was successful overall in preventing depressive symptoms in 5th and 6th grade children over a two-year follow-up period (Gillham et al., 1995). The data on which the present study is based are drawn from the first cohort of children to



participate in the program, which was conducted in 1991. Therefore, participants were not specifically informed that parental divorce was the event of interest for this study.

### *Subjects*

Subjects in the prevention group were 5th and 6th graders in two school districts in a suburb of a major Eastern city. Letters describing the program were sent to all parents. From an initial pool of approximately 900 children, parental consents were returned for 174 children (19%). These children completed two screening questionnaires as described below. The same recruitment procedure was then used in a neighboring school district to select children for a no-treatment, long-term control group. Parents were informed that a longitudinal study of children's moods and problem solving abilities was being conducted. Out of approximately 700 children in this district, the parents of 88 children (13%) returned the consent forms. These 88 children also completed the same two screening questionnaires as the treatment group. The long-term no-treatment control group was created by selecting 50 children whose scores were matched to the children in the prevention group.

The original sample consisted of 69 children (34 girls and 35 boys) in the prevention treatment condition and 50 children (22 girls and 28 boys) in the long-term no-treatment control condition. The present study only compares children of divorce in the prevention group with children of intact families who were also in the prevention group. There were too few children of divorce in the control group to allow statistical comparisons. Of the 69 children in the prevention group, 36 (52%) were from intact families and 33 (46%) were from families in which the biological parents were divorced or separated. Ten of these children did not complete the pretest CDI or dropped out of the study before the 12-month follow-up. Thus, the final sample consisted of 59 children (31 children of intact families and 28 children of divorce).

There were no significant differences between the divorce group and intact family group in initial CDI scores, age, sex, race, income, grade point average, mother's educational level or father's educational level. See Table 1 for a complete table of means.

TABLE 1. Demographic Characteristics of Children in the Prevention Group

<u>Variable</u>	<u>Intact Family</u>	<u>Divorced Family</u>
Mean age of child in years	11.27 (SD = .74)	11.34 (SD = .72)
Sex of child		
Male	61%	40%
Female	39%	60%
Race of child		
Caucasian	80%	80%
African American	14%	20%
Other	6%	
Grade average	2.97 (B)	2.59 (B-)
Total family income		
Less than \$20,000	15%	18%
20,001-40,000	39%	50%
40,001-60,000	30%	21%
60,001-80,000	6%	7%
More than \$80,000	9%	4%
Education of father		
Some high school	9%	3%
High school grad	41%	45%
Some college	24%	32%
College grad	15%	10%
More than college	12%	10%
Education of mother		
Some high school	3%	7%
High school grad	49%	29%
Some college	26%	14%
College grad	17%	32%
More than college	6%	18%

Note: Percentages do not always add up to 100% due to rounding.

### *Measures*

The children filled out two screening questionnaires (Children's Depression Inventory and the Children's Perception Questionnaire) administered in group fashion at the children's school during regular school hours. The CDI is a commonly used 27-item self-report measure of severity of depressive symptoms (CDI; Kovacs, 1992) which

includes measures of somatic symptoms, behavior problems, mood, low self-worth and anhedonia. The CPQ is a 19-item self-report questionnaire (Emery & O'Leary, 1982) which measures children's perceptions of parental conflict. Two-thirds of the items measure level of interparental conflict, and the other one-third measures level of parental acceptance. The marital conflict items have been found to have an internal consistency of .90 (Emery & O'Leary, 1982).

To create a single selection criteria of risk status, scores on the two screening questionnaires were converted to z scores and summed. All children with a combined distress score of higher than the cut-off of .50 were invited to participate in the program. Children whose combined scores fell below the cut-off were invited to participate in descending order if space in the groups permitted.

In addition to the two screening questionnaires, all children completed a battery of questionnaires prior to the beginning of the program, and five times over a two-year period following the completion of the program. The children completed the questionnaires in groups at their schools during regular school hours, one week before the start of the program, one week after the end of the program, and at six-month follow-up evaluations. Children filled out the CDI, assessing current depressive symptoms, at each interval. They also completed the Children's Attributional Style Questionnaire (CASQ; Kaslow, Tannenbaum, & Seligman, 1978). The CASQ is a 48-item forced-choice questionnaire which assesses the child's explanatory style for both negative and positive events. The questionnaire yields composite scores which describe the child's explanations for positive and negative events as internal or external, temporary or stable, and global or specific.

### ***Prevention Program***

The DPP contains both a cognitive component and a social problem-solving component. The cognitive component of the program attempts to instill a flexible thinking style and teaches children to evaluate the accuracy of their beliefs by examining evidence for negative beliefs and generating more realistic alternatives. This component also includes explanatory style training to teach children to identify their causal attributions, challenge inaccurate and pessimistic explanations, and generate alternative, less stable attributions for negative events.

The social problem solving component of the program focuses on the interpersonal difficulties often associated with depression. This portion of the program teaches children effective goal setting, generating alternatives, decision making, information gathering and perspective taking. Techniques are also provided to help children cope with family conflict, peer relations problems, and other stressful situations. These techniques include de-catastrophizing, distraction, and behavioral techniques such as relaxation, assertiveness and negotiation.

Children in the prevention treatment condition met for one and one-half hours per week in a single session, in groups of ten to twelve children, for a total of twelve sessions. The groups were led by doctoral students in clinical psychology following a detailed training manual which precisely spelled out the material to be taught, and included specific examples, games and exercises. (For information on how to obtain the manual, please contact Karen Reivich, PhD, University of Pennsylvania, Department of Psychology, 3815 Walnut Street, Philadelphia, PA 19104.)

### **RESULTS**

All variables were examined for skewness and met the test for normal distribution. As is common in longitudinal research, 20 children who completed the study did not complete measures at all data collection points. Missing data was estimated for these children for the CDI only when data for both the immediately preceding and subsequent measurement points were available, and when the CDI scores at those times were within 2.5 points. In such cases (9 children) the mean of the flanking values was inserted. After inserting the missing data in these cases, 11 children still had missing data. These children were not included in the repeated measures ANCOVAs. The CDI results for all assessment occasions are presented in Table 2.

To examine differences between the two groups, repeated measures analyses of covariance (MANCOVAs) were conducted with CDI score as the dependent variable and parents' marital status as the independent variable, in which the initial level of depressive symptoms was statistically controlled. Results revealed no main effect of group (intact versus divorced) and no main effect of time. There was,

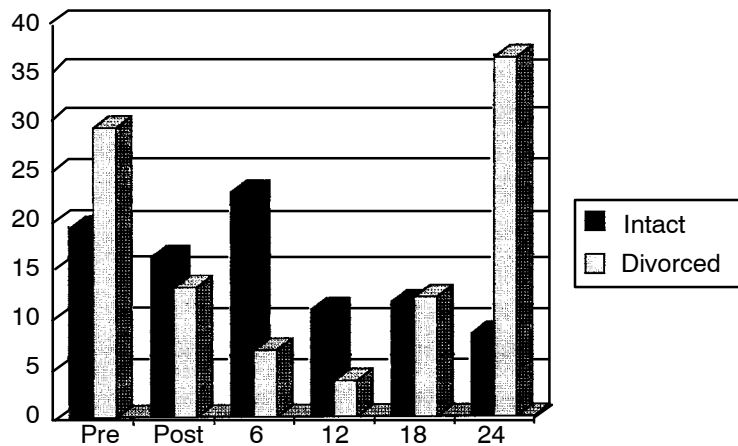
TABLE 2. Mean CDI Scores for Prevention Group Children of Divorced and Intact Families

Assessment	Intact Family Group			Divorced Family Group		
	N	Mean	SD	N	Mean	SD
Pretest	36	8.33	6.49	31	9.93	6.91
Posttest	31	7.79	6.03	31	7.12	5.01
6 months	31	8.31	7.23	30	7.20	4.67
12 months	28	6.21	4.51	28	6.29	4.19
18 months	26	6.82	5.49	25	7.24	5.17
24 months	24	7.21	4.74	25	10.81	8.20

however, a significant group  $\times$  time interaction,  $F(4,160) = 2.47$ ,  $p < .05$ . Post hoc t-tests revealed a marginally significant difference between children of divorce and children of intact families at the 24-month follow up,  $t(39) = -1.89$ ,  $p = .066$ . Children of divorce showed a higher level of depressive symptoms at this time, with a mean CDI score of 10.81 (SD = 8.20) compared to children of intact families, with a mean CDI score of 7.21 (SD = 4.74).

As seen in Figure 1, children in the divorced group were more than four times as likely to report depressive symptoms in the moderate to severe range than children in the intact family group at the 24-month follow up. Figure 1 indicates the proportion of children in the divorced group and the intact family group with CDI scores of 15 or greater for all times of measurement. At the 24-month follow-up, 36% of children in the divorced group were moderately to severely depressed. In contrast, only 8% of children in the intact family group had CDI scores at or above this level. Thus, while the program has been shown to be effective overall in preventing depressive symptoms, there is some evidence that for children of divorce, the effectiveness may begin to diminish by 24 months, at least as compared to other children who have received treatment.

FIGURE 1. Percent of Children with CDI Scores of 15 or Above from Divorced and Intact Families



### *CASQ Results*

Because children's composite negative score on the CASQ was a mediator of depressive symptoms in the original study, the composite negative scores for children from intact and divorced families were examined. There were no significant differences between groups at any time of measurement, indicating that the program was effective in improving and maintaining improvements in explanatory style for participants in both intact and divorced families. Whatever the reason for the increase in depressive symptoms for children of divorce at the 24-month follow-up, it does not appear that their explanatory style had become more pessimistic.

### *Gender Results*

In adolescence, increases in depressive symptoms have been found for girls. In addition, level of family conflict has been found to have a greater impact on daughters' emotional adjustment (Jaycox & Repetti, 1993). One potential explanation of the group  $\times$  time interaction,

therefore, is that there were more girls (60%) in the divorced group than the intact family group (39%). As mentioned previously, this gender composition difference was not significant; however, boys' and girls' CDI scores were examined separately. Level of depressive symptoms for prevention group boys and girls were not significantly different at any time of measurement. Girls appeared to show an increase in average level of depressive symptoms at the 24-month follow-up, however, a  $2 \times 2$  ANOVA (gender  $\times$  group (Intact/Divorced)) at this follow-up revealed no interaction.

### *Level of Conflict*

As mentioned previously, some researchers have suggested that it is the level of conflict in the family, not the actual divorce, which most impacts children's psychological adjustment (Rutter, 1994). Further, children's self-reports of level of conflict in the family are more strongly related to children's psychological adjustment than parental reports of conflict (Jaycox & Repetti, 1993). Since levels of perceived conflict may be higher in divorced families, we also examined children's reports of perceived family conflict at the 24-month follow-up as reported on the Children's Perception Questionnaire, to see whether this factor would be responsible for the group  $\times$  time interaction. The difference in level of conflict in divorced families and intact families was not significant,  $t(46) = -1.51$ , ns, although the trend was in the expected direction. Children from intact families reported a mean level of perceived conflict of 7.13, while children from divorced families reported an average conflict level of 10.58.

### *Control Group Results*

Unfortunately, only nine (9) children of divorce (7 male, 2 female) in the original control group completed measures of depressive symptoms at the 24-month follow-up, so there was not enough power to statistically examine possible differences between the divorced prevention group and children of divorce from the no-treatment control group. Looking at the CDI scores at the 24-month mark, however, the children of divorce in the control group show the same increase in mean CDI score at the 24-month follow-up as the children of divorce in the prevention group. However, the mean CDI score for the di-

divorced control group ( $x = 12.8$ ,  $SD = 9.8$ ) was even higher than for the children in the divorced prevention group. As indicated in Table 3, children of divorce in the control group had higher average levels of depressive symptoms than children of divorce in the prevention group at every time of measurement post-treatment, although their initial pretest CDI scores were very similar. Although no conclusions may be drawn due to the small size of the no-treatment divorce group, this trend again suggests that the program did have some preventive effect.

### DISCUSSION

Contrary to our first hypothesis, the DPP seemed to be effective in preventing depression in children of divorce for a period of time. The techniques taught by the program appear to have been successful in preventing depressive symptoms in both children of divorced and intact families, as the groups were not significantly different in levels of depression. Those children from divorced families who did not receive treatment had higher average levels of depressive symptoms compared to children of divorce who did not participate in the program. Further, children of divorced and intact families did not differ in attributional style for negative events throughout the follow-up period. Both groups were able to learn to attribute negative events to less stable, enduring causes. This finding supports the inclusion of explan-

TABLE 3. Mean CDI Scores of Children of Divorce in Prevention Group and No-Treatment Control Group

Assessment	Control Group			Prevention Group		
	N	Mean	SD	N	Mean	SD
Pretest	11	8.55	6.74	31	9.93	6.91
Posttest	6	9.17	8.54	31	7.12	5.01
6 months	11	10.19	7.44	30	7.20	4.67
12 months	8	10.75	6.69	28	6.29	4.19
18 months	8	9.63	6.82	25	7.24	5.17
24 months	9	12.78	9.80	25	10.81	8.20



atory style change components, social skills training and other cognitive techniques in interventions for children of divorce.

Although divorce situations were not a primary focus of the DPP, children in the program were encouraged to use personal examples in the program sessions. Children of divorce may have been able to transfer many of the techniques they learned to the specific stressors in their lives through these exercises. For example, the children learned to identify situations which they could control and those they could not, and to understand that they do have control over how they *think* about these situations. This understanding and the ability to distinguish controllable from uncontrollable events may be particularly helpful for children in divorced families.

In addition, the DPP, although it was not targeted to children of divorce, may have been effective for these children because some important problems and issues which influence children's post-divorce adjustment were addressed. Several sessions of the program included a component on family conflict, and encouraged the children to share their experiences with their peers in the group. The discussion was intended to normalize the experience of conflict and allow children to share strategies which they have found successful in coping with parental conflict. Normalizing the experience of conflict and gaining effective strategies for coping with conflict and anger would benefit children of divorce whose family environments continued to have high levels of hostility. One session did include a divorce-related scenario which touched on children's fears about divorce—not seeing their father or worry about losing a parent's love. The session attempted to keep children from blaming themselves for situations they could not control, and helped them avoid making a bad situation worse by catastrophizing.

Perhaps because of these components which were helpful to children of divorce, the DPP was effective in preventing depressive symptoms in these children, as well as in children from intact families. However, children in the divorced group showed a greater increase in depressive symptoms with time than children in the intact family group. By the 24-month follow-up, children of divorce were more than four times as likely to be moderately to severely depressed than children of intact families. What are the possible explanations for this pattern of results?

It may be, as we hypothesized, that the parental and family factors

which were not addressed in the program continue to exert an influence on child adjustment. The DPP did not include a parental component, yet helping the parents and improving the child's relationship with the parents may be critical for children of divorce. If one or both of the parents are depressed or having difficulty adjusting, the parents' beliefs and views may sometimes serve to perpetuate the child's own self-critical perceptions (Lipsker & Oordt, 1990), and may make modifying the child's negative beliefs more difficult. The techniques provided by DPP may have been initially effective in challenging children's depressogenic cognitions, but parental reinforcement of those techniques may be necessary for long-term benefits.

Continuing hostility between parents is also an important factor influencing child outcome. Level of conflict may not be adequately addressed in most types of interventions, which teach children techniques to cope with conflict, but are not designed to reduce the actual conflict. Parental conflict can undermine interventions which attempt to change behavior in children or make it difficult to maintain those changes (Emery & O'Leary, 1982). Conflict can further disrupt parent-child relationships and provide an ongoing model of poor conflict resolution skills.

While the children are in the program the more adaptive skills are modeled, but after termination the ongoing parental models may become more salient, and children who are continually exposed to parental conflict may not continue to use the techniques taught by the intervention. Interventions which do not attempt to reduce parental hostility associated with divorce, teach co-parenting skills, and help the post-divorce family maintain or re-establish consistent roles and rituals may be less successful for the children who must deal with post-divorce conflict.

Although there was no significant difference in level of conflict reported by children in divorced and intact families at the 24-month follow-up, nevertheless the trend was in the expected direction. The actual difference in perceived level of conflict may have been greater than the results suggest due to the nature of the instructions on the Children's Perception Questionnaire. Because the CPQ allows children to choose the adults they answer questions about, some children from divorced families reported the amount of conflict they perceived between the adults they currently lived with, while others reported on conflict between their divorced parents. As a result, some children

reported level of conflict between a natural parent and step-parent, some answered questions based on conflict between a parent and other adults in the home such as grandparents, aunts or uncles, and in some cases it was unclear which adults the child had included when responding to the questionnaire. It is possible that had children focused on conflict between their divorced parents, the level of perceived conflict would have been higher in the divorced group.

We also expected that non-targeted interventions such as the DPP might be less effective for children of divorce simply because the post-divorce environmental challenges of an overwhelming number may exceed the child's ability to cope, even with the skills gained in the program. As the number of family stressors increases, child adjustment has been shown to decrease (Forehand et al., 1990; Forehand, 1993). Ideally, interventions should be designed to reduce the number of negative events in the child's life, suggesting that programs which target the family system instead of the child may be more effective.

An additional explanation for the increased levels of depressive symptoms among children of divorce at the 24-month follow-up is suggested by Wallerstein and Blakeslee's (1989) and Hetherington's (1989, 1993) findings of sleeper effects among adolescents whose parents had divorced. At the 2-year follow-up of the current study, the children who were 10 and 11 when the study began were turning 12 and 13, and entering adolescence. The developmental demands of adolescence may have interacted with vulnerabilities which these children still carried with them. Adolescents whose parents are divorced may have an even greater number of changes to accommodate to—not only the developmentally normal changes of this time of transition, but divorce-related life changes, which may continue for extended periods of time after parental divorce.

Societal expectations in this country tend to encourage conflict with parents during a child's adolescence, as children experience a great deal of societal pressure to be autonomous. Normative issues of adolescent separation and individuation have been found to be intensified in single parent families. Individuation encompasses redefining the past, reliving early experiences and attachments in preparation for the separation process. Feelings of anger, loss, betrayal, or guilt which may have been repressed may surface. Perception of loss has been found to play a significant role in persistent feelings of sadness after a divorce, and may continue to make children vulnerable to depression

if interventions do not facilitate grief work to help children resolve these issues (Drill, 1987; Oppawsky, 1991).

Divorce can make it more difficult at this time—parents who are struggling with their own problems, dealing with economic stress or depression, have less energy to parent and may be less able to keep a connection to their children. Single parents must make the difficult decisions about discipline alone, often with no other parent to back them up and support their rules. If children have not forgiven their parents for the divorce, they may continue to be angry at them for breaking the rules themselves, and unwilling to respect their authority.

The parent/child relationship is increasingly strained for many adolescents. Because children of divorce are more likely to have troubled relationships with parents even before adolescence, the increased strain at this time may be particularly damaging, depriving adolescents of an important source of support as they explore new areas of independence. Adolescence is a time when children are expected to move away from their family, but at the same time their parents are supposed to be standing behind them as a united front to protect them as they explore. Children of divorce do not have a secure base from which to move away, and may feel insecure and abandoned. Many do not trust adults and turn to peers for advice at a time when they need the experience and love of their parents.

The egocentrism which is developmentally appropriate at this stage can be especially difficult for children of divorce, as the increase in self focus can magnify losses and lead to negative comparisons with others in intact families. In addition, children of divorce may be more self-critical and this may lead to increases in depressive symptoms.

Children of divorce may also have difficulty at this stage as they begin to pursue intimate relationships. Wallerstein and Blakeslee (1989) found that adolescence is a period of increased risk for children of divorce as they face the developmental tasks of establishing intimacy. They may lack a template for love relationships between men and women, and have difficulty trusting others, which makes establishing intimacy difficult. Adolescence is a difficult time for all children, and the difficulties may be magnified in children of divorce. At the 2-year follow-up depressive symptoms were worse in children of divorce in the prevention group. This difference may have been due to the increased challenges of adolescence in divorced families.

While adolescence is difficult for all children, girls in particular are

at increased risk for depression at this time (Lewinsohn, Hoberman, & Rosenbaum, 1993), and adolescent girls from divorced families may be the most vulnerable of all. Although the number of boys and girls in the divorced and intact groups did not differ, 78% of children of divorce in the current study who showed moderate to severe levels of depression at 24 months were girls. Girls from divorced families showed the highest mean CDI scores at this time, suggesting that this subgroup may have a particularly difficult time in adolescence.

According to Mary Pipher (1994), at this stage girls struggle to find their true selves, which necessitates integrating past experience with the current cultural expectations. Pressures from society can cause girls to bury their authenticity and construct “false selves” which will bring them acceptance and approval from the popular culture. Girls at this age are particularly vulnerable to depression because of their developmental stage. Their bodies are changing—girls naturally become plumper and rounder at the very time cultural messages to be unrealistically thin are increasing. They feel pressured to be attractive and are aware that society evaluates people on the basis of appearance at the same time that their developmental level results in a preoccupation with peer approval and a high degree of self absorption.

Girls from divorced families often have too much to handle as the issues that hit girls with puberty are added to divorce-related stresses. Adolescent girls who have formed close attachments to their single mothers may have a particularly difficult time separating from their mothers and forming relationships with the opposite sex, which may result in increased depressive symptoms. The close childhood bond was protective when the child was younger, but is difficult to loosen yet remain connected in adolescence.

In conclusion, the cognitive techniques and social skills taught by the DPP appear to have been effective in preventing depressive symptoms in children of divorce as well as children from intact families. Girls, as well as boys from divorced families, were able to benefit from the program, and their average levels of depressive symptoms remained in the mild range for over a year after completion of the program. However, the increase in depressive symptoms in children of divorce, particularly girls from divorced families, at the 24-month follow-up is troubling. The vulnerabilities which these children still carry with them may be intensified in adolescence, both by the demands of our culture and the developmental tasks which must be

negotiated, and children of divorce may no longer be able to effectively fight off depression.

If children of divorce are to be able to navigate the increasingly choppy waters of adolescence without recurrence of depression or other maladjustment, interventions may need boosters at such nodal developmental points during which new developmental stressors must be negotiated. Although the effectiveness of booster sessions has not been clearly demonstrated (Baker & Wilson, 1985), for programs such as DPP, which demonstrate effectiveness in preventing depressive symptoms in children of divorce for some period of time, boosters may provide the additional support necessary to enable these children to avoid a recurrence of depressive symptoms as they enter adolescence.

### *LIMITATIONS OF THE STUDY*

A complete understanding of the child's post-divorce family situation, such as the child's relationship with their parents, is a source of uncontrolled variance in this study. Future research would benefit from analysis of the effects of these factors on children's response to the intervention. In addition, the present experimental design does not allow a determination of whether the intervention contributed anything beyond nonspecifics of therapy. A nonspecific control group would clarify this issue in future research.

Finally, a larger control group of children from divorced families would allow statistical comparisons which could confirm whether or not the program was indeed "better than nothing" as well as to chart the natural course of depression in children of divorce who do not receive treatment.

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