Published in final edited form as:

Omega (Westport). 2013 ; 68(4): 293–314.

The Family Bereavement Program: Description of a theory-based prevention program for parentally-bereaved children and adolescents

Tim S. Ayers[1], **Sharlene A. Wolchik**[2], **Irwin N. Sandler**[2], **Joan L. Twohey**, **Janelle Lutzke Weyer**[3], **Sarah Padgett-Jones**[1], **Lillie Weiss**[4], **Eloise Cole**, and **Gary Kriege**[5]

[1]Program for Prevention Research, Arizona State University, Tempe, AZ

[2]Department of Psychology, Arizona State University, Tempe, AZ

[3]John C. Lincoln North Mountain Hospital, Phoenix, AZ

[4]Weiss Psychologists Ltd., Private Practice, Phoenix, AZ

[5]Arizona Interfaith Counseling Center, Mesa, AZ

Abstract

This article describes a preventive intervention to promote resilience of parentally bereaved youth. This intervention includes separate but concurrent programs for youth and caregivers that were developed to change empirically-supported risk and protective factors. We first discuss the risk that parental death confers to youth mental health and social adaptation outcomes. Next, we discuss the theoretical framework underlying this program. After describing the content and structure of the program, we describe the results of an experimental field trial and discuss directions for future work.

An exciting literature has emerged over the past few years that has identified risk and protective factors that are associated with the mental health and social adaptation outcomes of parentally-bereaved youth (e.g., Tremblay & Israel, 1998; Lutzke et al., 1997; Clarke et al. 1995). However, there is a gap between these findings and the design of interventions to improve outcomes, or promote resilience of bereaved children. This paper will describe the development of the Family Bereavement Program (FBP), a theory-based program to promote resilience of parentally-bereaved children (Sandler, Ayers, et al. 2003). We first discuss the risk that parental death confers to children's mental health and social adaptation outcomes. Next, we discuss the theoretical framework underlying the FBP and describe the content and structure of the program. We then describe the results of a randomized experimental trial of the program and discuss directions for future work.

Correspondence concerning this article should be addressed to Tim S. Ayers, Program for Prevention Research, P.O. Box 876005, Arizona State University, Tempe, AZ 85287-6005; phone number: (480) 965-7420; fax: (480) 965-5430.

Risk status of parentally bereaved children

Based on data from 1997 (Social Security Administration, 2000), 3.5% of children under the age of 18 had experienced parental death (73.9% death of a father, 25% death of mother and 1.1% both parents). Researchers have consistently found that bereaved children exhibit more depressive symptoms (Cerel, Fristad, Verducci, Weller & Weller, 2006; Gersten, Beals, & Kallgren, 1991; Kendler et al., 2002; Kranzler, Shaffer, Wasserman, & Davies, 1990; Melhem, Walker, Moritz, Brent, in press; Van Eerdewegh, Bieri, Parrilla, & Clayton, 1982; Worden & Silverman, 1996), are more anxious and withdrawn (Felner, Stolberg, & Cowen, 1975; Kranzler et al., 1990; Saucier & Ambert, 1986; Worden & Silverman, 1996), have more school problems (Gregory, 1965; Van Eerdewegh et al., 1982) and poorer academic performance (Ambert & Saucier, 1984; Partridge & Kotler, 1987) than non-bereaved children (for more complete reviews, Dowdney, 2000; Lutzke, Ayers, Sandler, & Barr, 1997). Although findings have been more equivocal for externalizing problems, some investigators have found that bereaved children have higher levels of aggressive and delinquent behavior (Gregory, 1965; Kranzler et al., 1990) and somatic complaints (Silverman & Worden, 1992).

Contextual Resilience Model underlying the FBP

Elsewhere we have described a contextual resilience model as a framework for conceptualizing the adaptation of youth following major disruptions such as parental death or divorce (Sandler, Wolchik & Ayers, 2006, Sandler, Wolchik, Ayers, Tein, Coxe & Chow, in press). While the details of this model will not be repeated here, aspects of the model that have important implications for identifying the risk and protective factors to target in intervention programs will be discussed. First is the proposition that the effects of adversities, such as parental death, on children's functioning can be accounted for by how well they adapt to the disruptions and restructuring of their environments after the disruption. Theoretically, these disruptions affect children's ability to satisfy basic needs (e.g., self-worth, social relatedness, and control) and their success in age salient developmental tasks, which in turn affect adaptation (Sandler, 2001). Second is that we are concerned with multiple aspects of functioning including problem outcomes (e.g., mental health problems, problematic levels of grief) and positive outcomes (e.g., academic competence, self-esteem). Bereaved children who achieve high levels of competence and low levels of problems are considered to be resilient. Third is that resilience is determined by multiple risk and protective factors that have a cumulative effect (Wyman et al., 2000). Therefore, prevention programs should target multiple risk and protective factors.

The FBP was designed to change risk and protective factors that have been demonstrated to relate to adaptation of parentally bereaved children. We refer to these factors as "putative mediators" because theoretically improving them should lead to improvements in children's adaptation. The FBP includes components for caregivers and children/adolescents because both these agents were seen as potentially able to influence the risk and protective factors that have been shown to be consistently related to children's adaptation after parental death. The mediators targeted in the caregiver program were positive parenting (caregiver-child relationship quality and effective discipline), caregiver mental health, and youth exposure to

negative events. The child and adolescent components targeted putative mediators that theoretically could be influenced by working directly with youth: caregiver-child relationship quality, positive coping (active coping, coping efficacy), negative esteem and threat appraisals, adaptive control beliefs, and adaptive emotional expression. Studies that document significant relations between these putative mediators and children's adaptation after parental death are listed in Table 1 and Table 2. The tables include studies that were available at the time of the development of the FBP as well as those published after the program was developed.

Structure and Content of FBP

The caregiver and child/adolescent programs consist of 12 two-hour group sessions, with four sessions including conjoint activities for the caregivers and youth. In addition, in the caregiver program, there are two 1-hour individual sessions to tailor the program to the needs of each family. Each group is led by two masters' level counselors and is composed of five to eleven members.

To involve participants in the learning process, collaborative and active learning strategies are used to teach the program skills. At the beginning of the program, caregivers and youth identify a personal goal that they wanted to accomplish during the program, and throughout the program they practice using program skills to accomplish these goals. In teaching each program skill, leaders initially solicit group members' experiences and ideas to develop the rationale for using the program skills and to highlight how the skill is relevant to their own experiences. After the skill is described and modeled through role play by the group leaders or by videotape, members role play use of the skills and leaders and other group members give feedback about skills use. Caregivers and youth are expected to practice applying the program skills at home after each session, and report back in the sessions on how well use of the skills worked with their families. Each session has a common structure, discussion of the home practice of program skills and progress toward achieving personal goals, teaching of a new program skill, practice of the new skill, and assignment of activities to practice at home. The program activities for each session and guidelines for group leader training and program implementation are provided in detailed manuals (Ayers, Sandler et al., 1996; Ayers, Wolchik et al., 1996; Sandler et al., 1996).

In most cases, intervention strategies were selected based on prior literature supporting their effectiveness to change the skills targeted by the program. Illustratively, the activities to enhance the caregiver-child relationship and effective discipline have been used to strengthen parenting in other interventions (e.g., Guerney, 1977; Forehand & McMahon, 1981) as well as our program for divorced mothers (Wolchik, Sandler, Weiss & Winslow, 2007). The strategies to reduce caregiver demoralization and promote healthy grieving included methods of cognitive reframing that have been successful in treating and preventing depression (Gilham, Reivich, Jaycox, & Seligman, 1995) and setting personal goals to deal with grief (Shear, Frank, Houck, & Reynolds, 2005). Because the existing literature provided little guidance on the most effective approach to help children deal with grief-related emotions, we developed strategies consistent with our conceptualization of how emotions affect adaptation. Based on theory and research with other groups, we

hypothesized that the simple expression of emotion would not necessarily be beneficial. Instead, we used strategies to help youth not to inhibit the expression of emotions that the child wanted to express (Pennebaker & Beall, 1986) and believe that their caregiver would understand their feelings (Gottman, Katz, & Hooven, 1997).

The central topics related to each mediator in the caregiver and child/adolescent programs and the sessions in which they are covered are shown in Table 3 and Table 4 respectively. Below, we provide details of the intervention strategies used for each mediator targeted in the intervention.

Caregiver Program

Positive parenting—The program begins with building a positive caregiver-child relationship. We address this protective factor early in the program in part because it takes time to build positive relationships and an early focus gives more time for practicing these skills. Also, these program activities are very rewarding to caregivers, which can increase their enthusiasm to try other program skills. In addition, increased positivity in the caregiver-child relationship makes the caregivers' use of limit setting and other discipline skills more effective.

Caregivers are first provided a description of the negative family cycle that often occur due to the stressors during and after the death and caregivers' and children's grief. Caregivers are told that this negative cycle can be broken by using skills that foster positive interactions. These skills include: "family fun time" (regular, positive, family activities), "one-on-one time" (15 minutes with each child where caregivers convey attention, acceptance and warmth) and effective listening (described below). We also teach a positive discipline skill called "catch'em being good", in which caregivers reinforce children's positive behaviors, ideas and characteristics. Leaders emphasize the importance of doing these activities consistently so children see them as part of family life they can count on them.

The three session segment on effective listening starts with a rationale for using effective listening skills and an overview of the three components of effective listening (i.e. listen, think, and respond). Leaders help caregivers see the link between good listening skills and the likelihood that children will share bereavement-related concerns and other challenges and successes in their lives. Leaders also note that listening skills help build children's self-esteem and increases positive exchanges between children and caregivers.

The first session on listening teaches caregivers to use good non-verbal behaviors, open-ended questions and conversational "continuers". These skills are presented as the "four talk to me's"; a) having "big ears" tuning into what their children are saying, b) good body language, c) "good openers" (open versus closed questions), and d) good continuers, such as "tell me more." The next two sessions focus on teaching caregivers to "think" and "respond", which involves thinking carefully about what the child was trying to express and then using "summary" or "feeling" responses that reflect and check out what the child is saying or feeling.

To address the skepticism that some caregivers have about these relationship enhancement skills, leaders use a number of strategies, such as asking caregivers to “experiment” with these skills and using other group members’ positive experiences to motivate caregivers to try the skills. Invariably, once caregivers start using these program skills, they see how much children enjoy them and begin to see increases in their children’s positive behaviors.

The heart of our approach to discipline is called, “The three C’s: Be Clear, Be Calm, Be Consistent.” We encourage caregivers to have clear and realistic expectations of their children and clearly communicate those expectations. We also instruct caregivers to calmly decide on consequences for breaking rules and to consistently apply them. Caregivers practice applying the three “Cs” by developing a four-step “change plan” to address a specific misbehavior. After counting the misbehavior for a week, caregivers work with the leaders to develop a change plan for it that includes appropriate consequences for its occurrence and a clear, calm communication of the consequences to the child. Leaders encourage caregivers to use the least harsh consequence that will reduce the misbehavior. After using the change plan, leaders and caregivers evaluate its effectiveness and make modifications if needed.

Disciplining children after parental death is challenging for many caregivers. Some are so drained emotionally by depression and grief that it is difficult to expend the energy to follow through with appropriate consequences. For these caregivers, support and encouragement from both group leaders and members are especially important. Another obstacle to effective discipline involves reluctance to impose expectations and consequences on children who have already been through so much. Caregivers with these kinds of concerns benefit from hearing that appropriate and consistent limits provide children with a sense of structure and stability that can be particularly important when so many changes are occurring.

Negative events—The program teaches caregivers to use guided problem solving to ameliorate the effects of negative life events on children’s adaptation. Caregivers are encouraged to use their listening skills as they guide children through the four problem solving steps that children and adolescents are taught in their program.

Some caregivers have difficulty switching from providing “quick fixes” to using guided problem-solving techniques, in part because they feel that providing children with the solutions saves them from making mistakes. Leaders use caregivers’ experiences of getting unsolicited advice as a way to help them see that sometimes children just want someone to listen rather than help them solve a problem. Leaders also emphasize that by helping children come up with their own solutions to problems caregivers can promote children’s sense of mastery and self-esteem.

Caregivers are also taught specific strategies to help shield children from exposure to stressful events in the family. For example, caregivers are instructed to provide children with reassurance and hope through making explicit statements, such as “Our family is strong and will get through this difficult time.” We also encourage caregivers to find “adult ears” -- adults with whom they could talk about their distress and the stressors they are experiencing.

Caregivers are told that having these connections will make it easier to refrain from using their children as confidants.

Caregiver demoralization—Acceptance and normalization of distress, cognitive reframing of experiences associated with depressive affect, and increased engagement in positive activities are used to reduce caregiver demoralization. Normalization of distress is promoted by a leader led discussion of the experience of being "blindsided by grief" or times where one is overwhelmed by intense sadness or anger and feelings of longing for the deceased. Leaders help caregivers see these experiences as a normal part of the grieving process for many individuals and note that their intensity and frequency typically decrease over time. Leaders also help caregivers identify ways of combating the feelings of being overwhelmed and discouraged by such intense grief experiences.

Cognitive-behavioral techniques are used to decrease negative self-talk and increase positive self-talk and pleasurable experiences. Challenging negative thinking is presented as an important way for caregivers to regain a sense of control and increase hopefulness. Caregivers are instructed about "thinking traps," (e.g., overgeneralization, catastrophizing) and leaders discuss how these kinds of thoughts lead to feeling hopeless, helpless, overwhelmed, and distressed. Examples of common thinking traps among bereaved caregivers are: "I'll never feel happy again" and "This is impossible for me to handle." Caregivers are encouraged to challenge their negative thinking by: a) recognizing feeling overwhelmed; b) identifying the thought behind the feeling; and c) replacing the negative thought with a more helpful, hopeful thought.

Using these techniques leads to reductions in negative demoralization for the majority of caregivers. However, some bereaved caregivers have extreme levels of negative affect, depression or grief, which can negatively affect the group process and which is not likely to be ameliorated by this program. In cases where these problems are so extreme that they prevent caregivers from participating in the sessions or using the program skills with their children, we make referrals for clinical services that focus on the depression or grief.

Child/Adolescent Program

The Child (ages 8–12) and adolescent (ages 12–16) programs target the same mediators. However, the content and format differ slightly so that the materials are appealing and developmentally sensitive for each age group.

Caregiver-child relationship quality—Children were seen as playing a complementary role to caregivers in promoting positive caregiver-child relationships. Children are taught expression skills to share their experiences and feelings which complement the listening skills taught to caregivers. In addition, youth are told that "giving positives" (verbal or physical expressions of appreciation) is an important way to help build strong families and are encouraged to think of creative ways to do this. To help ensure that the program skill of "family fun time" goes well youth are taught the components of this activity and the leaders talk about ways to refrain from fighting and problem solving during family fun time. To increase investment in family fun time activities, families select possible activities during a conjoint component of a session. Family members brainstorm possible activities and put

those activities that all family members agree would be enjoyable into a “fishbowl.” The family agrees that each week one activity would be drawn from the “fishbowl”.

With respect to communication skills, youth are taught the distinction between “you” and “I” messages and encouraged to use “I” messages more frequently. In teaching “I” messages, a distinction is made between “I” messages that request help in solving a problem (i.e. I-message for problem solving) and those that involve only sharing of feelings(i.e., I-message for sharing). These different “I messages” are taught in a broader approach to good communication, in which youth are encouraged to a) find a good time to talk with another, b) figure out what they want from the interaction and c) give an “I message” that fits their needs.

Positive coping—The program teaches multiple skills to reduce the negative effects of stressors. Strategies for reducing cognitive distortions that were adapted from programs for preventing depression (Clarke & Lewinsohn, 1991; Gillham et al., 1995; Jaycox et al., 1994) are used to prevent exaggerated negative appraisals of stressors. Leaders note that although uncomfortable or painful feelings are a normal part of grief sometimes the ways in which people think about things can make them feel worse. Youth are taught about the connections between stressful events, thoughts and feelings. Youth are also taught to label very negative ways of thinking about things as “hurtful” thoughts. One type of hurtful thoughts that is particularly common for bereaved youth involves stable, global, negative thoughts about stressors, which are labeled as “doom and gloom” thinking (e.g., “Everything in my life is bad.” or “My mom will always be sad.”). Children and adolescents are taught to recognize that these thoughts are “exaggerations” and to replace these thoughts with more “helpful thoughts.” Helpful thoughts recognize the bad feelings about the stressor but focus on hopefulness for the future and optimism about their ability to deal with the situation (e.g., “Things may be bad now, but they can get better in the future.”).

Problem solving is taught using a four-step model adapted from those used in other programs (e.g. Caplan, Jacoby, Weissberg, & Grady, 1988; Caplan et al., 1992; Pedro Carroll, 1985). The model is introduced early in the program as a means of teaching positive reframing or “problem solving for hopeful thoughts”. The following questions are presented for each step of the model: a) Stop: “What am I feeling” b) Think: first, look outside, “What’s happening?”, then look inside “Any hurtful thoughts?” c) Brainstorm: “What hopeful thought can I think?” and finally, d) Choose, “Does (the thought) make sense to me?” and “Does if feel better?”. Later in the program, when the model is applied to deal more generally with problems, step two is augmented to include the questions “Is this my job?” and “What do I want to happen?”. These questions encourage the use of other skills that were taught in earlier sessions such as evaluating whether a problem is under their control (“their job to fix”) and goal setting. The other steps are also elaborated to reflect the shift to a more general problem solving model, so that brainstorming not only includes brainstorming “hopeful thoughts” but also “positive actions.” Similarly, the fourth step, “choose”, is broadened to include questions for evaluating the “positive actions”, such as; “Can I do it”, “What would happen if I do it?, and “Should I do it?”.

A variety of collaborative learning techniques and exercises are used to teach problem solving. For example, in the children's group, puppets are used to introduce "No Thinking Theo" who is struggling with problems brought on by his younger brother. "Round-robin" and "team" collaborative learning structures are used to generate positive goals and brainstorm hopeful thoughts and positive actions. In the adolescent group, members first role-play scripted scenes involving "No Thinking Theo" having to babysit a younger sibling when he had other plans. This scene is stopped at several points to teach a new component of the four-step model. The group is then split into two teams and each team practices applying the steps in the problem solving model by doing role plays scenes created by the other team.

Increasing coping efficacy is embedded into many aspects of the program, including problem solving, positive reframing, and weekly review of how youth cope with problems. Leaders consistently praise the children's coping efforts and encourage them to recognize and feel good about their success. In addition, two parts of the program focus more explicitly on enhancing coping efficacy: identifying and working to achieve a "program" goal and developing a lesson to "teach" a program skill. As noted earlier, in the first part of the program, youth identify a "program" goal to accomplish in the group (e.g. "Share my feelings with my father") and are encouraged to use the program skills to meet this goal. Progress toward the goals is regularly reviewed and leaders and group members reinforce and praise efforts toward achieving these goals. To increase a sense of efficacy in using the program skills, youth prepare a lesson on the program skill they found to be most helpful, which they present to the group. Leaders encourage the children to think of creative ways to teach this skill (e.g., poems, songs, puppet shows). These lessons are presented to the group and children/adolescents are videotaped so the lessons can be used to teach the skill to other parentally bereaved children, if the families consent. In addition, children are put in the expert role as they role play being panel members on a fictitious television program, "Kidcope TV." The panel members respond to questions bereaved children often have by giving advice that is consistent with the program skills. Panel members receive feedback and reinforcement from the other group members. In addition to enhancing coping efficacy, the latter two activities provide an excellent opportunity to review the skills taught in the program.

Negative-esteem and threat appraisals—To promote self-esteem, leaders provide positive reinforcement for participating in group activities and successful application of program skills. Also, activities taught in the caregiver component, such as "catch'em being good" and "one-on-one time" promote children's self-esteem. In addition, youth are taught a process of evaluating stressors in their lives in ways that are less threatening to their self-esteem and are more likely to promote adaptive coping. Youth are taught to use hopeful thoughts to counteract "self-put downs," which involve interpreting stressors as due to some negative characteristic of the child or adolescent, such as self-blame for the occurrence of the event. As described above, challenging negative appraisals and encouraging more positive appraisals that involve more hopeful thinking is also an important tool in promoting positive coping.

Adaptive control beliefs—An important dilemma in teaching adaptive control beliefs is that many stressors that occur to bereaved children are outside of their control. To help children deal with this situation, leaders teach youth to distinguish problems that are a “kid’s job to fix” and those that are “not a kid’s job to fix”. Leaders help youth accept responsibility for problems that are “a kid’s job” and to avoid negative appraisals associated with taking excess responsibility for problems that are “not a kid’s job”. Youth are taught to select coping strategies that are appropriate for each type of problem. For example, stressors such as their caregiver being depressed or lonely are labeled as beyond their control and not their job to fix. Children are taught that their concern about their caregiver shows that they really care, but that they should not underemphasize their caregiver’s strengths. Youth are told that they can show their concern by giving their caregiver a hug or telling them that they care, but that it is important to recognize that their caregiver will be the one to take care of their loneliness or depression. On the other hand, falling behind in their school work is their job to fix. If this is the case, then the youth are helped to brainstorm strategies for improving their academic performance.

The following exercise is used to teach the distinction between problems that are or are not a kid’s job and illustrate the “burden” of taking on problems that are “not a kid’s job.” Leaders have a group member put on a backpack that is filled with several objects of different weights. Each object is labeled with a common problem (e.g., fail a test, fight with a sibling, caregiver sad, money troubles, friends teasing you about not having two parents) and the heavier objects have labels of problems that are not within a child’s control. After asking the child how it would feel to walk around all day with this heavy backpack, the leader pulls each object out and asks the group to decide if the problem is or is not a kid’s job. Those determined to be a kid’s job are put back in the backpack. At the end of exercise, the backpack is much lighter and more manageable. The leader concludes the exercise by noting that some children and adolescents choose to burden themselves with problems that really are not their job and encouraging youth to focus on problems that are a kid’s job.

Adaptive emotional expression—Each session includes a 10–15-minute segment that provides structured opportunities for youth to discuss grief-related feelings. Topics include the dealing with anger, sadness, hiding feelings, and unusual grief experiences. These discussions provide opportunities for youth to openly share their experiences with the group and to experience being understood by the leaders and group members. To illustrate, in the discussion on hiding feelings, children typically talk about potential negative consequences of hiding emotions, including feeling even more alone and worrying about whether their feelings are abnormal. Leaders normalize the range of experiences and have children share active coping strategies they could use to deal with the feelings being discussed. Leaders facilitate these discussions so that each member has an opportunity to share their feelings at a level with which they feel comfortable. Leaders do not attempt to deepen the level of emotional expression but rather validate them at the level the child is ready to express and point out commonality of experiences across group members.

Throughout the program, leaders encourage youth to use their communication skills to share their feelings with their caregivers at home. In addition, there are several opportunities in the conjoint components for youth to share feelings with their caregivers and for the caregivers

to show that they understand these feelings. The personal memento exercise illustrates how the program facilitates this kind of interaction. In this exercise, youth bring to the session a "personal memento" or object that reminds them of their deceased parent. Youth are told to keep their selection a secret from their caregiver until the session when they show the object to the group and explain why they chose it. Caregivers are given the instructions to use their listening skills to really help them understand what the object means to their child and how their child feels talking about it.

Evaluation of the effects of the FBP

The FBP has been evaluated using a randomized experimental trial in which 156 families (involving 244 children and adolescents ages eight through fourteen) were randomly assigned to the FBP or a self-study comparison condition in which caregivers, child and adolescents each received three books about grief and a syllabus to guide their reading. Caregivers and children/adolescents were assessed at four time points; prior to being randomly assigned to condition, immediately after the program ended, 11 months after the post-test (14 months after the pre-test), and six years after the intervention.

The results from the first three waves were described elsewhere (Sandler et al., 2003) and will only be briefly reviewed here. At post-test, families in the FBP improved more than controls on multiple risk and protective factors, including increases in positive parenting (caregiver-child relationship quality and effective discipline), decreases in caregiver mental health problems, reductions in negative events, increases in positive coping (a composite of active coping and coping efficacy), and decreases in inhibition of expression of feelings. At 11-month follow-up, significant or marginally significant main effects were found indicating that the FBP reduced caregivers' mental health problems and children's inhibition of emotional expression and improved children's adaptive control beliefs. In addition, there was a significant program effect to improve positive parenting for those who had lower scores at program entry. Significant interaction effects with gender indicated additional program effects for girls to improve positive coping and reduce threat appraisals for stressful events for those who had higher threat appraisals at program entry.

At post-test, significant program effects did not occur for youth mental health problems. However, at 11-month follow-up, a significant effect was found for the FBP to improve caregiver report of internalizing problems for youth who had higher internalizing problems at program entry. In addition, compared to girls in the self-study condition, girls who were in the FBP had lower externalizing and internalizing problems as reported by both caregivers and youth. Analyses using growth curve modeling further clarified the nature of the gender by program interaction effect on mental health problems (Schmiege, Khoo, Sandler, Ayers & Wolchik, 2006). Girls in the self-study condition showed no reduction in internalizing or externalizing problems over time following parental death, whereas girls in the FBP showed fewer internalizing and externalizing problems over time. In contrast, boys in both conditions showed decreases in internalizing and externalizing problems over time.

In sum, at post-test, the FBP led to improvements on a wide range of putative mediators for both boys and girls (e.g., positive parenting, caregiver distress, and youth's coping,

inhibition of emotional expression and adaptive control beliefs). Program effects on internalizing and externalizing mental health outcomes were found for girls at 11-month follow-up, and on internalizing problems for those who had higher internalizing problems at program entry. We are currently analyzing data from a six-year follow-up of this sample.

Mediation analyses were conducted to test whether the effects of the FBP to reduce girls' mental health problems at 11-month follow-up were accounted for by program-induced improvements in the targeted risk and protective factors. These analyses tested whether the program affected the theoretical mediator which in turn affected adaptation outcomes. Analyses found that program effects to reduce mental health problems for girls at 11-month follow-up were mediated by program effects on three variables at post-test, positive parenting, negative events and active inhibition of emotional expression (Tein, Sandler, Ayers & Wolchik, 2006). The independent effect of these three mediators was demonstrated by entering them in a single model; program effects at post-test on all three mediators mediated the program effect on girls' externalizing problems at 11-month follow-up. It should be noted that the predictor variable occurred prior to the criterion variable so that the model satisfied the condition of time precedence between the mediator and outcome (Kraemer, et al. 2002). However, the model is a conservative one because we do not know the time lag over which the effect of the mediator on the outcome occurs. To further probe for potential mediators that were not detected by the longitudinal models, a set of simultaneous models was run (MacKinnon, in press) in which both the mediators and mental health outcomes were assessed at 11-month follow-up. These models indicated that three additional variables, positive coping, threat appraisal and unknown control beliefs, mediated the program effects on girls' mental health problems (Tein et al, 2006).

Summary

This article describes a prevention program for parentally bereaved youth. In developing this program, the findings of correlational studies on risk and protective factors were used to identify targets for change. Empirically-supported intervention strategies were then selected and incorporated into a comprehensive program that worked with caregivers and children. The program uses active learning strategies in which caregivers and children set goals for what they want to accomplish by being in the program and use program skills to achieve these goals. A variety of strategies are used to teach program skills including modeling, role play and feedback on use of skills. Participants are expected to practice the program skills at home and leaders provide feedback, problem solving and support to promote effective skill use. Evaluation of the program in a randomized trial has shown positive effects for caregivers and children to improve on a wide range of the targeted risk and protective factors and for girls to show decreased levels of mental health problems at 11-month follow-up.

Acknowledgments

Support for this research was provided by National Institute of Mental Health Grant #P30 M439246-15 to establish a Preventive Intervention Research Center at Arizona State University, and Grant #R01 MH49155-05 to evaluate a preventive intervention for bereaved families. The authors are grateful to several other people for their contributions to this paper: the Family Bereavement Program facilitators who contributed greatly to the development of the

intervention, and Janna LeRoy for support with preparing the manuscript. We also thank the caregivers and children for their participation in the evaluation of this program.

References

Ambert AM, Saucier JF. Adolescents' academic success and aspirations by parental marital status. Canadian Review of Sociology and Anthropology. 1984; 21(1):62–74.

Ayers, TS. A dispositional and situational assessment of children's coping: Testing alternative theoretical models. Tempe: Unpublished Dissertation, Arizona State University; 1991.

Ayers TS, Sandler IN, Lutzke JR, Twohey JL, Li S, Losoya S, Kriege G. Family Bereavement Program: Group Leader Intervention Manual for Adolescent Program. 1996 (Available from Prevention Research Center, Arizona State University, 900 S. McAllister Ave. Room 205, P.O. Box 876005, Tempe, AZ 85287-6005).

Ayers TS, Wolchik SA, Weiss L, Sandler IN, Jones S, Cole E, Barrow S. Family Bereavement Program: Group Leader Intervention Manual for Parent Program. 1996 (Available from Prevention Research Center, Arizona State University, 900 S. McAllister, Ave. Room 205, P.O. Box 876005, Tempe, AZ 85287-6005).

Caplan M, Jacoby C, Weissberg RP, Grady K. The Positive Youth Development Program: A substance use prevention program for young adolescents. 1988 (Available from The Consultation Center, Yale School of Medicine, 389 Whitney Ave., New Haven, CT 06511).

Caplan M, Weissberg RP, Grober JS, Sivo PJ, Grady K, Jacoby C. Social competence promotion with inner-city and suburban young adolescents: Effects on social adjustment and alcohol use. Journal of Consulting and Clinical Psychology. 1992; 60(1):56–63. [PubMed: 1556286]

Cerel J, Fristad MA, Verducci J, Weller RA, Weller EB. Childhood bereavement: pychopathology in the 2 Years postparental death. Journal of the American Academy of Child and Adolescent Psychiatr. 2006; 45:681–669.

Clarke G, Lewinsohn PM. The adolescent coping with stress class: Leader manual. 1991 (Available from Department of Psychiatry, Oregon Health Sciences University, Gaines Hall Room 244, 3181 S.W. Sam Jackson Park Road, Portland, Oregon 97201-3098).

Clarke GN, Hawkins W, Murphy M, Sheeber LB, et al. Targeted prevention of unipolar depressive disorder in an at-risk sample of high school adolescents: A randomized trial of group cognitive intervention. Journal of the American Academy of Child and Adolescent Psychiatry. 1995; 34(3): 312–321. [PubMed: 7896672]

Cowen EL, Work WC, Hightower AD, Wyman PA, et al. Toward the development of a measure of perceived self-efficacy in children. Journal of Clinical Child Psychology. 1991; 20(2):169–178.

Dowdney L. Childhood bereavement following parental death. Journal of Child Psychology and Psychiatry and Allied Disciplines. 2000; 41(7):819–830.

Felner RD, Stolberg A, Cowen EL. Crisis events and school mental health referral patterns of young children. Journal of Consulting and Clinical Psychology. 1975; 43(3):305–310. [PubMed: 1159117]

Forehand, RL.; McMahon, RJ. Helping the noncompliant child : a clinician's guide to parent training. New York, N.Y: Guilford Press; 1981.

Forgatch, MS.; Patterson, GR.; Ray, JA. Divorce and boys' adjustment problems: Two paths with a single model. In: Hetherington, EM.; Blechman, EA., editors. Stress, coping, and resiliency in children and families. Family research consortium: Advances in family research. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.; 1996. p. 67-105.

Garber J, Little S. Predictors of competence among offspring of depressed mothers. Journal of Adolescent Research. 1999; 14(1):44–71.

Gersten JC, Beals J, Kallgren CA. Epidemiology and preventive interventions: Parental death in childhood as a case example. Special Issue: Preventive Intervention Research Centers. American Journal of Community Psychology. 1991; 19(4):481–500. [PubMed: 1755432]

Gillham JE, Reivich KJ, Jaycox LH, Seligman MEP. Prevention of depressive symptoms in schoolchildren: Two-year follow-up. Psychological Science. 1995; 6(6):343–351.

Gottman, JM.; Katz, LF.; Hooven, C. Meta-emotion: How families communicate emotionally. Mahwah, NJ: Lawrence Erlbaum; 1997.

Gregory I. Anterospective data following childhood loss of a parent. Archives of General Psychiatry. 1965; 13:99–109. [PubMed: 14314765]

Gross JJ, Levenson RW. Hiding feelings: The acute effects of inhibiting negative and positive emotion. Journal of Abnormal Psychology. 1997; 106(1):95–103. [PubMed: 9103721]

Gross JJ, Munoz RF. Emotion regulation and mental health. Clinical Psychology: Science and Practice. 1995; 2(2):151–164.

Guerney, BG. Relationship enhancement : Skill-training programs for therapy, problem prevention, and enrichment. 1st -- ed.. San Francisco: Jossey-Bass; 1977.

Haine RA, Ayers TS, Sandler IN, Wolchik SA, Weyer JL. Locus of control and self-esteem as stress-moderators or stress-mediators in parentally bereaved children. Death Studies. 2003; 27:619–640. [PubMed: 12962127]

Haine RA, Wolchik SA, Sandler IN, Milsap RE, Ayers TS. Parenting as a protective resource for parentally bereaved children. Death Studies. 2006; 30:1–28. [PubMed: 16296557]

Jaycox LH, Reivich KJ, Gillham J, Seligman MEP. Prevention of depressive symptoms in school children. Behaviour Research and Therapy. 1994; 32(8):801–816. [PubMed: 7993324]

Kendler KS, Sheth K, Gardner CO, Prescott CA. Childhood parental loss and risk for first-onset of major depression and alcohol dependence: The time-decay of risk and sex differences. Psychol Med. 2002; 32:1187–1194. [PubMed: 12420888]

Kraemer HC, Wilson T, Fairburn CG, Agras WS. Mediators and moderators of treatment effects in randomized clinical trials. Archives of General Psychiatry. 2002; 59:877–883. [PubMed: 12365874]

Kranzler EM, Shaffer D, Wasserman G, Davies M. Early childhood bereavement. Journal of the American Academy of Child and Adolescent Psychiatry. 1990; 29(4):513–520. [PubMed: 2387784]

Kwok O-M, Haine RA, Sandler IN, Ayers TS, Wolchik SA, Tein J-Y. Positive parenting as mediator of the relations between parental psychological distress and mental health problems of parentally bereaved children. Journal of Clinical Child and Adolescent Psychology. 2005; 34:260–271. [PubMed: 15901226]

Langrock, A.; Compas, BE.; Keller, G.; Merchant, MJ. Coping with the stress of parental depression: Parents' reports of children's coping and emotional/behavioral problems. Poster presented at Seventh Annual Society for Prevention Research Conference; Montreal, Canada. 2000. Date

Lin K, Sandler I, Ayers T, Wolchik S, Leucken L. Parentally-bereaved children and adolescents seeking mental health services: Family, child, and stress variables that predict resilience. Journal of Clinical Child and Adolescent Psychology. 2004; 33:673–683. [PubMed: 15498735]

Lohnes KL, Kalter N. Preventive intervention groups for parentally bereaved children. American Journal of Orthopsychiatry. 1994; 64(4):594–603. [PubMed: 7847575]

Lutzke, JR.; Ayers, TS.; Sandler, IN.; Barr, A. Risks and interventions for the parentally bereaved child. In: Wolchik, SA.; Sandler, IN., editors. Handbook of children's coping with common life stressors: Linking theory, research and interventions. New York: Plenum; 1997. p. 215-243.

Melhem NM, Walker M, Moritz G, Brent DA. Antecedents and sequelae of sudden parental death in offspring and surviving caregivers. JOURNAL NAME?. (in press).

Osterweis; Solomon; Green. Bereavement: Reactions, consequences, and care. Washington, D.C: National Academy Press; 1984.

Partridge S, Kotler T. Self-esteem and adjustment in adolescents from bereaved, divorced, and intact families: Family type versus family environment. Australian Journal of Psychology. 1987; 39(2): 223–234.

Patterson, GR. Families : Applications of social learning to family life. Rev. -- ed.. Champaign, Ill: Research Press; 1975.

Pedro Carroll J. The children of divorce intervention program: Procedures manual. 1985 (Available from Children of Divorce Intervention Program, University of Rochester, Center for Community Study, 575 Mt. Hope Avenue, Rochester, New York 14620).

Pennebaker JW, Beall SK. Confronting a traumatic event: Toward an understanding of inhibition and disease. Journal of Abnormal Psychology. 1986; 95:274–281. [PubMed: 3745650]

Raveis VH, Siegel K, Karus D. Children's psychological distress following the death of a parent. Journal of Youth and Adolescence. 1999; 28(2):165–180.

Sandler, I.; Gersten, JC.; Reynolds, K.; Kallgren, CA.; Ramirez, R. Using theory and data to plan support interventions: Design of a program for bereaved children. In: Gottlieb, BH., editor. Marshaling social support: Formats, processes, and effects. Newbury Park, CA: Sage Publications, Inc.; 1988. p. 53-83.

Sandler IN. Quality and ecology of adversity as common mechanisms of risk and resilience. American Journal of Community Psychology. 2001; 29:19–61. [PubMed: 11439827]

Sandler IN, Ayers TS, Twohey JL, Lutzke JR, Li S, Kriege G. Family Bereavement Program: Group Leader Intervention Manual for Child Program. 1996 (Available from Prevention Research Center, Arizona State University, 900 S. McAllister Ave., P.O. Box 876005, Tempe, AZ 85287-6005).

Sandler, IN.; Ayers, TS.; Tein, J-Y.; Wolchik, SA. Perceived coping efficacy as a mediator of the effects of coping efforts. In: Sandler, IN.; Compas, B., editors. Beyond simple models of coping: Advance in theory and research. Albuquerque, New Mexico: Symposium conducted at the the Biennial Meeting of the Society for Research in Child Development; 1999. (Chair)

Sandler IN, Ayers TS, Wolchik SA, Tein J-Y, Kwok O-M, Haine RA, Twohey JL, Suter J, Lin K, Padgett-Jones S, Weyer JL, Cole E, Kriege G, Griffin WA. The Family Bereavement Program: Efficacy evaluation of a theory-based prevention program for parentally-bereaved children and adolescents. Journal of Consulting and Clinical Psychology. 2003; 71:587–600. [PubMed: 12795581]

Sandler IN, Coatsworth JD, Lengua LJ, Fisher J, Wolchik SA, Lustig J, Fitzpatrick P. New Beginnings children of divorce program: Child coping-enhancement program manual. 1992 (Available from Program for Prevention Research, Arizona State University, 900 S. McAllister Ave. Rm. 205, P.O. Box 876005, Tempe, AZ 85287-6005).

Sandler IN, Tein JY, West SG. Coping, stress, and the psychological symptoms of children of divorce: A cross-sectional and longitudinal study. Child Development. 1994; 65(6):1744–1763. [PubMed: 7859552]

Sandler IN, Tein J, Mehta P, Wolchik S, Ayers T. Coping efficacy and psychological problems of children of divorce. Child Development. 2000; 71(4):1099–1118. [PubMed: 11016569]

Sandler IN, Wolchik SA, Ayers T. Resilience rather than recovery: A contextual framework for adaptation following bereavement. Manuscript submitted for publication. 2006

Sandler, IN.; Wolchik, SA.; Ayers, TS.; Tein, JY.; Coxe, S.; Chow, W. Linking theory and intervention to promote resilience of children following parental bereavement. In: Stroebe, M.; Hansson, M.; Stroebe, W.; Schut, H., editors. Handbook of bereavement research: Consequences, coping and care. Washington DC: American Psychological Association; (in press)

Saucier JF, Ambert AM. Adolescents' perception of self and of immediate environment by parental marital status: A controlled study. Special Issue: Canadian Academy of Child Psychiatry: A Canadian perspective. Canadian Journal of Psychiatry. 1986; 31(6):505–512.

Schmiege SJ, Khoo ST, Sandler IN, Ayers TS, Wolchik SA. Symptoms of internalizing and externalizing problems: Modeling recovery curves after death of a parent. American Journal of Preventive Medicine. 2006; 31:S152–S160. [PubMed: 17175410]

Shear K, Frank E, Houck PR, Reynolds DF. Treatment of complicated grief: A randomized controlled trial. Journal of the American Medical Association. 2005; 293:2601–2608. [PubMed: 15928281]

Silverman PR, Worden JW. Children's reactions in the early months after the death of a parent. American Journal of Orthopsychiatry. 1992; 62(1):93–104. [PubMed: 1546765]

Social Security Administration. Intermediate Alternative Data from the 2000 Trustees Report. Washington, DC: Office of the Chief Actuary of the Social Security Administration; 2000.

Sood B, Weller EB, Weller RA, Fristad MA, et al. Somatic complaints in grieving children. Comprehensive Mental Health Care. 1992; 2(1):17–25.

Strength, J. La Mirada, California: Unpublished Dissertation, Biola University; 1991. Factors Influencing the mother-child relationship following the death of the father and how that relationship affects the child's functioning.

Tein J-Y, Sandler IN, Ayers T, Wolchik SA. Mediation of the effects of the family bereavement program on mental health problems of bereaved children and adolescents. Prevention Science. 2006; 7:179–195. [PubMed: 16775760]

Tein J-Y, Sandler IN, MacKinnon DP, Wolchik SA. How did it work? Who did it work for? Mediation and mediated moderation of a preventive intervention for children of divorce. Journal of Consulting and Clinical Psychology. 2004; 72:617–624. [PubMed: 15301646]

Thompson MP, Kaslow NJ, Price AW, Williams K, Kingree JB. Role of secondary stressors in the parental death-child distress relation. Journal of Abnormal Child Psychology. 1998; 26:357–366. [PubMed: 9826294]

Tremblay GC, Israel AC. Children's adjustment to parental death. Clinical Psychology: Science and Practice. 1998; 5(4):424–438.

Van Eerdewegh MM, Bieri MD, Parrilla RH, Clayton PJ. The bereaved child. British Journal of Psychiatry. 1982 Jan.140:23–29. [PubMed: 7059737]

Van Eerdewegh MM, Clayton PJ, Van Eerdewegh P. The bereaved child: Variables influencing early psychopathology. British Journal of Psychiatry. 1985 Aug.147:188–194. [PubMed: 4041693]

West SG, Sandler IN, Pillow DR, Baca L, Gersten JC. The use of structural equation modeling in generative research: Toward the design of a preventive intervention for bereaved children. Special Issue: Preventive Intervention Research Centers. American Journal of Community Psychology. 1991; 19(4):459–480. [PubMed: 1755431]

Wolchik SA, Tein J-Y, Sandler I, Ayers TS. Stressors, quality of child--caregiver relationship, and children's mental health problems after parental death: the mediating role of self-system beliefs. Journal of Abnormal Child Psychology. 2006; 34:221–238. [PubMed: 16502140]

Worden, JW. Children and grief: When a parent dies. New York: Guilford; 1996.

Worden JW, Silverman PR. Parental death and the adjustment of school-age children. Omega Journal of Death and Dying. 1996; 33:91–102.

Wyman, PA.; Sandler, I.; Wolchik, SA.; Nelson, K. Resilience as cumulative competence promotion and stress protection: Theory and intervention. In: Cicchetti, D.; Rappaport, J.; Sandler, I.; Weissberg, RP., editors. The promotion of wellness in children and adolescents. Washington, D.C.: Child Welfare League of America Inc.; 2000. p. 133-184.

Table 1

Empirical Support for Targeted Risk and Protective Factors Targeted in Caregiver Program

Mediator	References
Positive parenting caregiver-child relationship quality	Haine, Wolchik, Sandler, Millsap, Ayers (2006)
	Kwok, Haine, Sandler, Ayers, Wolchik, Tein (2005)
	Lin, Sandler, Ayers, Wolchik, Leucken (2004)
	Osterweis, Solomon, & Green (1984)
	Raveis, Siegel, & Kraus, (1999)
	Sandler, Gersten, Reynolds, Kallgren, & Ramirez, (1988)
	Sandler, Coatsworth, Lengua, Fisher, Wolchik, Lustig, & Fitzpatrick (1992)
	West, Sandler, Pillow, Baca, & Gersten, (1991)
	Wolchik, Tein, Sandler, & Ayers (2006)
Effective discipline	*Forgatch, Patterson, & Ray (1996)
	Kwok, Haine, Sandler, Ayers, Wolchik, & Tein (2005)
	Strength, J. (1991)
	* Tein, Sandler, MacKinnon, & Wolchik (2004)
	Worden (1996)
Caregiver mental health problems	Kranzler, Shaffer, Wasserman, & Davies, (1990)
	Lin, Sandler, Ayers, Wolchik, Leucken (2004)
	Sood, Weller, Weller, Fristad, & et al. (1992)
	Van Eerdewegh, Clayton, & Van Eerdewegh (1985)
	West, Sandler, Pillow, Baca, & Gersten (1991)
Negative events	Thompson, Kaslow, Price, Williams, & Kingree,(1998)
	West, Sandler, Pillow, Baca, & Gersten, (1991)
	Wolchik, Tein, Sandler, & Ayers, (2006)

* Study was conducted with non-bereaved sample.

Table 2

Empirical Support for Targeted Risk and Protective Factors Targeted in Child and Adolescent Program

Mediator	References
Caregiver-child relationship quality	Haine, Wolchik, Sandler, Millsap, Ayers (2006)
	Kwok, Haine, Sandler, Ayers, Wolchik, Tein (2005)
	Lin, Sandler, Ayers, Wolchik, Leucken (2004)
	Osterweis, Solomon, & Green (1984)
	Raveis, Siegel, & Kraus, (1999)
	Sandler, Gersten, Reynolds, Kallgren, & Ramirez, (1988)
	Sandler, Coatsworth, Lengua, Fisher, Wolchik, Lustig, & Fitzpatrick, (1992)
	West, Sandler, Pillow, Baca, & Gersten, (1991)
	Wolchik, Tein, Sandler, & Ayers, (2006)
Positive Coping	*Ayers, (1991)
Active coping	*Garber, & Little (1999)
	*Langrock, Compas, Keller, & Merchant, (2000)
	Sandler, Ayers, Tein, Wolchik (1999)
	Sandler, Tein, & West (1994)
Coping efficacy	*Cowen, Work, Hightower, Wyman, & et al. (1991)
	Lin, Sandler, Ayers, Wolchik, Leucken (2004)
	*Sandler, Tein, Mehta, Wolchik, & Ayers (2000).
Negative-esteem and threat appraisals	Haine, Ayers, Sandler, Wolchik, & Weyer (2003)
	Lin, Sandler, Ayers, Wolchik, Leucken (2004)
	Silverman & Worden (1992)
Adaptive control beliefs	Haine, Ayers, Sandler, Wolchik, & Weyer (2003)
Adaptive emotional expression**	

*Study was conducted with a non-bereaved sample.

**No support was available in literature. Inclusion was based on clinical theory (Worden, 1996) and evidence from laboratory studies with adults showing that the inhibition of expression of emotion is stressful and relates to poorer adaptation (Gross & Levenson, 1997, Gross & Munoz, 1995.)

Table 3

Central Topics Covered in FBP Caregiver Program

Putative Mediator	Central Topics	Sessions
Caregiver-Youth Relationship Quality	• Negative & Positive family Cycle • Family Fun Time • Catch 'em Being Good • Listening Skills (good body language, talk to me's, summary and feeling responses) • When listening isn't enough: Guided problem solving • How to listen to your children talk about grief • Responding to an I-message for problem solving	2, 3, 4, 5, 6, Both individual sessions
Caregiver Demoralization	• Personal Goals • Normalizing Grief Experience • Bereavement Discussions • Catch Yourself Being Good • Challenging Negative Thinking	1, 7 First individual session
Discipline	• Overview of Effective Discipline • Identifying and Counting a Misbehavior • Selecting appropriate consequences • Using, evaluating and re-evaluating change plans • The coercion and escalation cycle • Anger management techniques	8, 9, 10
Negative Life Events	• Review of coping strategies taught to children • Supporting your child's coping efforts • Reducing the impact of negative events	11

Table 4

Central Topics Covered in FBP Child/Adolescent Program

Putative Mediator	Central Topics	Sessions
Caregiver-Child Relationship	• Telling your caregiver about positive feelings • Conjoint session to plan Family Fun Time • Conjoint session for sharing personal memento • Giving caregivers a positive • Good communication skills • Using fewer you-messages and more I-messages • Conjoint session to give caregiver a Problem I Message	2, 6, 9 Both individual sessions
Negative Esteem and Threat Appraisals	• Identifying hopeful and hurtful thoughts • Becoming more aware of your hopeful and hurtful thoughts • Self-put downs and self-boosters • Doom and gloom and positive thinking • Changing hurtful thoughts to hopeful thoughts	3, 4, 5 First individual session
Adaptive Control Beliefs	• Controllable vs. uncontrollable life events • Identifying problems that are a kid's job to fix	7
Positive Coping	• Hopeful thoughts make sense and hurtful thoughts don't make sense • Ways to remember to use hopeful thoughts • Steps to problem solve hopeful thoughts	5, 7, 8
Active coping	• Positive reframing for events that are not a kid's job • Steps of effective problem solving for problems that are under a kid's control • Differences between positive and negative goals • Brainstorming and choosing the best idea for effective problem solving • Using problem solving steps to solve problems that are a kid' job	
Efficacy of coping	• Overview of program goals • Set personal and program goals • Reinforce progress toward personal goals and revising plans if needed • Reinforce successful use of skills • Teach the others in the group a skill that has worked for them • Review skills learned in program	1, 10, 11, 12 First individual session
Adaptive Emotional Expression	• Bereavement discussions • I-message for sharing	1, 2, 3, 4, 5, 6, 7, 8, 9,10