Behavioral and Subjective Participant Responsiveness to a Manualized Preventive Intervention

by

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ABSTRACT

The effects of preventive interventions are found to be related to participants' responsiveness to the program, or the degree to which participants attend sessions, engage in the material, and use the program skills. The current study proposes a multi-dimensional method for measuring responsiveness to the Family Bereavement Program (FBP), a parenting-focused program to prevent mental health problems for children who experienced the death of a parent. It examines the relations between individual-level risk-factors and responsiveness to the program, as well as the relations between responsiveness and program outcomes. The sample consists of 90 caregivers and 135 children assigned to the intervention condition of an efficacy trial of the FBP. Caregivers' responsiveness to the 12-week program was measured using a number of indicators, including attendance, completion of weekly "homework" assignments, overall program skill use, perceived helpfulness of the program and program skills, and perceived group environment. Three underlying dimensions of responsiveness were identified: Skill Use, Program Liking, and Perceived Group Environment. Positive parenting and child externalizing problems at baseline were found to predict caregiver Skill Use. Skill Use and Perceived Group Environment predicted changes in caregiver grief and reports of child behavior problems at posttest and 11-month follow-up. Caregivers with better Skill Use had better positive parenting outcomes. Skill use mediated the relation between baseline positive parenting and improvements in positive parenting at 11-month follow-up.

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Introduction

Preventive interventions for high-risk families have been found to reduce the risk of mental health problems for youth in numerous experimental trials (National Research Council & Institute of Medicine, 2009). However, in order for programs to benefit the public they need to be successfully implemented in community settings. Conceptualizing and measuring the different aspects of implementation and testing their effects on outcomes of prevention programs are critical tasks for research. Researchers have conceptualized several dimensions of implementation that are interrelated and influence program outcomes for participants (Berkel, Maurizio, Schoenfelder, & Sandler, 2011). One aspect of implementation that has been associated with positive outcomes of prevention programs concerns the degree to which participants become positively engaged with the intervention, which has been referred to as "responsiveness" (Dane & Schneider, 1998). This proposal identifies two primary aspects of responsiveness, behavioral and subjective responsiveness, and will measure these constructs in the study of the implementation of the Family Bereavement Program (FBP), a family-based preventive intervention for parentally-bereaved children.

The proposal will first use measurement modeling to develop a multi-measure model for the assessment of the dimensions of implementation. The study will then investigate how family characteristics prior to the intervention are related to participant responsiveness to the intervention and which dimensions of responsiveness predict change in parents and parenting following the intervention. The proposal will test the theoretical proposition that responsiveness mediates

between the baseline characteristics of the families and change in these family variables across an 11-month period following the program. This research contributes to our understanding of how family variables might influence responsiveness to the prevention program, and how responsiveness in turn might influence the benefit they receive from participating in the program. The findings have the potential to inform future research on how to effectively deliver the FBP so as to maximize its effects on families. Improved understanding of influences on responsiveness and the relationship between responsiveness and the outcomes of prevention programs is important for future studies evaluating models of training or technical assistance, for developing measures to monitor implementation, and for indentifying factors that influence the effectiveness of prevention programs.

Background

Implementation of Preventive Interventions

Family-based preventive interventions for high-risk populations have been found to have long-term effects in reducing negative child and adolescent outcomes (Kumpfer & Alvarado, 2003), including behavior and mental health problems (e.g. Sanders, Markie-Dadds et al., 2000; Prinz & Miller, 1994; Webster-Stratton, 1990; Wolchik, Sandler, et al., 2002), substance use (e.g. Dishion & Andrews, 1995; Connell et al., 2007; Park, et al., 2000), and risky behaviors (e.g. Olds et al., 2002; 2004). Such programs can have considerable public health benefits if they can be made accessible to high-risk families through effective delivery by community-based organizations. A critical issue in

translating these efficacious prevention programs into effective community services is demonstrating that the programs can be well implemented in the community context so that they achieve the positive effects shown in the experimental efficacy studies. Implementation refers to how an intervention is conducted in a particular setting. Durlak and DuPre (2008) conducted a meta-analysis of implementation studies and found that multiple aspects of implementation were related to program outcomes. Along with other researchers (e.g., Domitrovich & Greenberg, 2000; Wilson & Lipsey, 2007), these authors proposed that understanding implementation is critical for evaluating the effects of interventions and maintaining the essential structure and quality of an intervention across different settings.

Dane and Schneider (1998) proposed a model of implementation that includes five elements: (1) fidelity or adherence, the extent to which a provider delivers the program components as originally intended; (2) dosage, or the amount of the program offered to participants; (3) quality, referring to how well the program components were delivered; (4) participant responsiveness, conceptualized as the degree to which the program stimulated participants' interest and held their attention; and (5) program differentiation, or uniqueness of the program and its theory from other programs. Durlak and DuPre (2008) add three additional elements: (6) control/comparison conditions; (7) program reach or enrollment; and (8) adaptations made to the program by implementers. Although researchers have found that some measures of these components are

related to outcomes, the study of implementation continues to be plagued by definitional and measurement issues.

The implementation construct of participant responsiveness has frequently been associated with program outcomes (e.g. Coatsworth, Santisteban, McBride, & Szapocznik, 2001; Spoth & Redmond, 2000). Although Durlak and Dupre (2008) define the construct of responsiveness broadly as "the degree to which the program stimulates the interest or holds the attention of participants" (p. 329), the most common measures of responsiveness used by researchers are behavioral indicators such as attendance and completion of program "homework" assignments. However, the degree to which the program stimulates the interest and holds the attention of participants' could also be conceptualized to include the individuals' subjective response to the program, including their perceptions of the usefulness of program skills, qualities of the group environment, and their satisfaction with participating (Berkel et al., 2011). The current study will take a new approach to capturing the construct of responsiveness by conceptualizing responsiveness to include both behavioral and subjective components.

Responsiveness

Behavioral Responsiveness. Responsiveness has traditionally been conceptualized as the behavior of participants in response to the intervention, such as session attendance (Dilliman-Carpentier et al., 2007) and homework completion (Blake, Simkin, Ledsky, Perkins, & Calabrese, 2001). Behavioral indicators of responsiveness are found to vary greatly across participants (August, Realmuto, Hektner, & Bloomquist, 2001; Reid, Eddy, Fetrow, & Stoolmiller,

1999; Webster-Stratton, Reid, & Hammond, 2001), and are often lower for programs that target families who are at a higher risk for child mental health problems because of life stressors (Coie et al., 1991). For example, Gross and colleagues (2009) reported average attendance rates of 4.3 out of 11 group sessions for their intervention for high-risk families, and other preventive parent training studies involving high-risk participants report similarly low attendance rates (e.g. Irvine et al., 1999; Myers et al., 1992; Orrell-Valiente et al., 1999).

Attendance is a robust predictor of better program outcomes (e.g. August, Egan, Realmuto, & Hektner, 2003; August et al., 2006; Blake et al., 2001; Brody, Murry, Chen, Kogan, & Brown, 2006). Gross and colleagues (2009) reported significantly greater improvements in parenting and child behavior problems for parents who attended at least 50% of sessions of a parenting intervention for high-risk families, whereas other researchers have found that positive program outcomes continue to increase as participant attendance increases (e.g. August et al., 2006). Research has also found that the completion of homework assignments incorporated into the program is associated with greater effects on intended program outcomes (Blake, et al., 2001). Homework completion may be associated with better outcomes because it provides participants with opportunities to apply what they are learning, and it may indicate dedication to the program and effort to understand the material. Participants may also gain a sense of efficacy in using the skills by completing homework, and may progress to using the skills beyond the context of homework. The proposed research will examine three behavioral measures of responsiveness: attendance, homework completion (including the

overall amount of assigned homework skills practiced and the quality with which they were completed), and reported overall skill use. No studies have simultaneously examined multiple aspects or measures of responsiveness to examine the relation of different types of responsiveness to each other and to outcomes.

Subjective Responsiveness. Although Durlak and Dupre (2008) make reference to programs stimulating participants' interest and holding their attention in defining responsiveness, few preventive intervention studies measure or report on participants' subjective experiences of the program. Responsiveness is hypothesized to include a subjective dimension that has been largely neglected in the implementation literature, perhaps because little is known about which aspects of subjective responsiveness are important to monitor or how best to measure the constructs. It is likely that programs engage participants' interests when they meet the needs of the participants and provide an environment that is pleasant and supportive. Subjective aspects of participants' responses to the program are likely to be related to their behavioral participation in the program, but they are not isomorphic with their behavioral responses. This proposal conceptualizes three subjective components of responsiveness: (1) Participants' evaluation of the intervention's content and how well it meets their needs, particularly their beliefs in the helpfulness of the program skills; (2) Participants' perceptions of the environment within the group, including a sense of cohesiveness between group members, support from group leaders, and group member expressiveness; and (3) Overall satisfaction with the program, which may not be specific to any single

component of the content or the context of the program. In addition to fostering behavioral participation, positive subjective responses to the program may also have direct positive therapeutic effects or may encourage participants to use and remember the skills, leading to long-term maintenance of program outcomes. Although some aspects of responsivenesshave been studied in relation to intervention outcomes (e.g. Dusenbury et al., 2005; Forgatch et al., 2005), a broad conceptual framework of the dimensions of responsiveness has not previously been employed and the multi-dimensional nature of the construct has not previously been investigated.

Prior evidence of relations of aspects of responsiveness to outcomes of interventions. A number of studies evaluating mental health treatment programs have found correlations between client satisfaction with services and post-treatment outcomes such as psychiatric symptoms and adjustment (Holcomb, Parker, Leong, Thiele, & Higdon, 1998; Lebow, 1982; Pekarik & Wolff, 1996). Most studies do not examine the relation of satisfaction to long-term outcomes, however, Carlson and Gabriel (2001) found that satisfaction with the effectiveness and availability of substance use prevention services predicted participants' continued use of services and higher rates of abstinence from substance use one year later. Other studies have failed to verify a link between satisfaction ratings and intervention outcomes (e.g., Lambert, Salzer, & Bickman, 1998; McLellan & Hunkeler, 1998). No previous studies have examined how participants' ratings of the usefulness of specific skills taught in the program relate to outcomes.

Preventive interventions are increasingly using group formats as a resource-efficient and cost-efficient means of program delivery (McKay, Gonzales, Quintana, Kim, & Abdul-Adil, 1999). The group context has been found to be an effective means for creating behavior change (Burlingame, Fuhriman, & Mosier, 2003), and has the added benefit of increasing participants' perceptions of social support and reducing isolation (McKay, Gonzalez, Stone, Ryland, & Kohner, 1995). Perceived group environment is a term that refers to participant perceptions of the processes and relationships cultivated within the group (Burlingame, Fuhriman, & Johnson, 2001), and has been measured as perceived cohesion or relatedness to other group members (Tschuschke & Dies, 1994), feeling understood, accepted, and supported (MacKenzie & Tschuschke, 1993), or members' sense of positive or negative emotions within the group climate (Castonguay, Pincus, Agras, & Hines, 1998). Group environment or climate has been found to be associated with client improvement in psychotherapy groups (e.g. Burlingame, et al., 2001; Castonguay, et al., 1998; Tschuschke & Dies, 1994). Illustratively, Castonguay and colleagues (1998) found that member rating of positive aspects of the group climate of a cognitive-behavioral therapy group for binge eating (e.g, "stimulating," "affectionate,") were related to positive treatment outcomes for members. Budman and colleagues (1989) measured the group environment of psychotherapy groups using observer ratings on several dimensions (e.g., self-absorption vs. involvement, mistrust vs. trust) and found that observer ratings in the first 30 minutes of the group were related to member-reported improvements following the group. However,

perceived group environment has rarely been measured within manualized, didactic preventive interventions.

One reason for the dearth of research on group environment in preventive interventions is the lack of a consistent method for measuring the construct. Several implementation researchers have attempted to measure the processes and environment within intervention groups with checklists of observable behaviors such as leader encouragement and empathy (Forgatch et al., 2005), leader enthusiasm (Dusenbury et al., 2005), and participant expressivity (Dusenbury et al., 2005); however, these measures are tailored to the content of the program, prohibiting the comparison of findings on group process or environment across different studies. These measures also are best conceptualized as objective observer ratings of the group environment and are not intended to assess the subjective experience of the group members. Some researchers also report time- and resource-intensive training that is necessary to use such instruments (Forgatch et al., 2005), while others do not report the reliability, validity, content, or structure of their scale (e.g., August et al., 2006). Self-report measures of the group environment assess the subjective experience of the group participants and have been found to relate to attendance within several preventive interventions (Dilliman-Carpentier et al., 2007; Wilson et al., 2008). This proposal conceptualizes the construct of perceived group environment as an important and neglected aspect of subjective responsiveness that captures participants' views of the group intervention context.

Three aspects of perceived group environment have been found to be significantly associated with other measures of engagement and outcomes for interventions and will be discussed further: cohesiveness, leader supportiveness, and group expressiveness. Cohesiveness is defined by Yalom (1995) as "members feeling warmth and comfort in the group...and feeling, in turn, that they are valued and unconditionally accepted and supported by the other members" (p. 48). Numerous studies of therapy groups find a relation between higher cohesion and better outcomes for group members (e.g. Budman et al., 1989; MacKenzie & Tschuschke, 1993; Roether & Peters, 1972; Yalom, Houts, Zimerberg, & Rand, 1967). Reviews of the effects of group therapeutic processes (Bednar & Kaul, 1994; Crouch, Bloch, & Wanlass, 1994) have reported a significant positive relation between group climate or cohesion and therapy outcomes that is consistent across studies. Leader supportiveness, conceptualized in previous studies to include leader empathizing, affirming, and praising, has also been found to be associated with better group outcomes within therapeutic groups (Karterud, 1988; Orlinsky et al., 1994). Forgatch, Patterson, and DeGarmo (2005) found that observer ratings of group leader supportive behaviors within a preventive intervention were associated with better client outcomes. Although these studies measured group leader supportiveness using objective ratings, it is likely that group leader supportive behaviors will lead to higher participant perceptions of leader supportiveness. No prior prevention study has assessed the relations between members' perceptions of leader support and outcomes from program participation. Group expressiveness, another important dimension of group

environment, refers to the extent to which participants perceive that members openly express their thoughts, feelings, or ideas within the group environment. Group members' active participation within preventive intervention sessions has been found to predict program outcomes for manualized family-based interventions (Garvey, Julion, Fogg, Kratovil, & Gross, 2006; Nye, Zucker, & Fitzgerald, 1995; Prado et al., 2006). School-based prevention programs in which providers elicit student ideas, participation, and engagement have also found better program outcomes (for a review, see Tobler and Stratton, 1997). However, no studies have examined the relations between participants' subjective sense that members openly express their thoughts and outcomes of preventive intervention groups.

Interrelations between behavioral and subjective aspects of responsiveness. Prior research has found that some measures of behavioral responsiveness are related to subjective measures of responsiveness. Attendance has been found to be related to participants' liking of the program and the group atmosphere in therapy groups (MacKenzie, 1994; Mankowski, Humphreys, & Moos, 2001). Studies on manualized interventions find that objective ratings of group leader supportiveness (Patterson & Forgatch, 1985), group cohesion (Prado et al., 2006) and comfort expressing oneself to the group (Fox & Gottfredson, 2003) to be associated with attendance. For example, Prado and colleagues (2005) found that leader reports of group cohesion within the first session of an HIV prevention program (as measured by contributing, relating to the facilitator and other members, expressing approval of the group, and working on their own and others'

problems) predicted retention within the program. A trial of a parent-focused program to prevent conduct disorder showed that group leaders' abilities to remain empathic, supportive, and effective in the face of parent resistance were associated with higher attendance rates and higher quality of participation (Orrell-Valiente et al., 1999). Although the aforementioned studies utilize observer or leader reports of group cohesion and leader supportiveness, it is likely that these ratings are related to participants' perceptions of these two aspects of group environment.

Two studies of preventive intervention groups administered adapted versions of the Group Environment Scale (GES; Moos, 1994) to participants and found that perceived group environment ratings were associated with the number of sessions they attended (Dilliman-Carpentier et al., 2007; Wilson et al., 2008). These studies demonstrate that participants' perceptions of the program and qualitative aspects of group leaders' behavior and the environment within the group are related to behavioral measures of participation in the intervention. Although there are interrelations between the different aspects of responsiveness, it is important to identify which aspects of responsiveness relate to which outcomes and assess the unique effects of these variables on targeted program outcomes.

Relation of Responsiveness to Individual Variables and Outcomes

Responsiveness as a mediator between participant characteristics and program outcomes. This proposal will test three propositions concerning the way in which participant responsiveness is related to variability in outcomes of participants in a

preventive parenting program. The first proposition is that characteristics of the families are directly related to their level of responsiveness in the program. The second proposition is that participant responsiveness is related to outcomes of participants in the program. The third proposition is that participant responsiveness mediates the relationship between characteristics of the families and the outcomes of participants in the program (see Figure 1). This is the first study to investigate responsiveness to the program as a mediator of change in outcomes for participants either in a group mental health treatment intervention or in a prevention parenting program. This proposal identifies four family and participant characteristics that are hypothesized to be related to responsiveness, and for whom responsiveness is predicted to mediate their relations to outcomes from the intervention.

Caregiver-reported youth mental health problems and positive parenting. Participants who perceive more problems in two areas targeted for change by the FBP, youth mental health problems and positive parenting, are predicted to be more responsive to the program and to improve more after participating in the program. Several studies have found that participants who score high on baseline measures of child behavior problems have better outcomes from preventive interventions than families reporting fewer behavior problems (e.g., Gardner et al., 2009; Hutchings et al., 2007). Caregiver-reported parenting difficulties and child behavior problems have also been associated with higher responsiveness as indicated by better attendance (August et al., 2003; Spoth & Redmond, 1995), more group participation (Garvey et al., 2006), and more satisfaction with

treatment (Garland, Aarons, Saltzman, & Kruse, 2000) compared to caregivers with fewer parenting challenges. It is possible that parents who perceive more child or parenting problems see the group environment as more positive and the program as more useful because of their ability to relate to the issues presented in the group and experiences shared by other group members. They may also be more likely to continue using program skills to make changes in their family over time, therefore receiving more benefits from the program than parents who perceive fewer child problems. This proposal will test the proposition that parents with poorer parenting skills and who report more child mental health problems become more engaged in the program than families with fewer initial problems or better parenting skills, and thereby receive more lasting benefits as a result of the intervention. Behavioral and subjective measures of responsiveness are hypothesized to mediate between baseline levels of positive parenting and child mental health problems and changes in parenting and child mental health outcomes 11-months following the program.

Parent depression and grief. Many evaluations of preventive interventions find differential program effects based on pre-existing levels of mental health problems of participants (e.g., Brown & Liao, 1999). This proposal offers competing hypotheses as to the relation of participant depression and grief to responsiveness to the intervention and change in depression and grief symptoms following the intervention. Individuals experiencing high levels of depression or distress are commonly believed to be less responsive to interventions and benefit less from interventions, because depression or distress interferes with their ability

to use program skills or engage in a structured intervention curricula. However, little research has investigated the relation of psychological distress to responsiveness to a structured, skill building parenting program. One study of parent training found that parents with more psychopathology had higher levels of resistance to the intervention (Patterson & Chamberlain, 1994), although it is unclear whether resistance effected intervention outcomes. Furthermore, depression and grief are characterized by disruptions in social functioning (e.g. Lewinsohn, Mischel, Chaplin, & Barton, 1980; Stroebe & Schut, 1999), and participants with more symptoms may also perceive the group as less supportive and cohesive than do other participants. Conversely, some research demonstrates that families with more stress or difficulties at baseline are more responsive to interventions (e.g., August et al., 2003; Garvey et al., 2006). Following this logic, parents who are showing more signs of depression and grief may perceive more benefits from the program and be more likely to attend sessions and use skills. Furthermore, grieving group members may perceive the supportiveness and cohesiveness of the group to be greater because the death of a loved one constitutes a major disruption in their social network (Engler & Lasker, 2000; Rando, 1993; Reed, 1998; Stroebe & Schut, 1999), and may benefit more from exposure to a positive and supportive social environment than participants who are experiencing less grief. The intervention examined in this study has been found to have greater effects to reduce the internalizing problems of youth with more internalizing problems at baseline (Sandler et al., 2003), but significant program by baseline effects were not found to predict caregiver mental health.

The current proposal will test whether responsiveness mediates between baseline levels of caregiver depression and grief and the effects of the program on caregiver depression and grief.

The Family Bereavement Program

This study investigates the relation of responsiveness to outcomes of a manualized intervention to prevent mental health problems in parentally-bereaved youths, the Family Bereavement Program (FBP). Nearly 4% of American children experience parental death before age 18 (Social Security Administration, 2000). Parentally-bereaved children have been found to be at increased risk for a variety of mental health problems, including depression, anxiety, behavior problems, and low self-esteem (Lutzke, Ayers, Sandler, & Barr, 1997; Worden & Silverman, 1996). One study found the risk of depression to be three times higher for bereaved children compared to non-bereaved children (Melhem, Mortiz, Walker, Shear, & Brent, 2007. Other studies report that the elevated risk for mental health problems of bereaved children persists into adulthood (Kendler et al., 2002; Reinherz et al, 1999; Wheaton, Roszell, & Hall, 1997). Interventions to prevent mental health problems in this population have potential for considerable impact to improve public health.

The Family Bereavement Program (FBP) was designed to prevent mental health problems in parentally bereaved youths. The program targets five risk and protective factors demonstrated in previous research to play a role in the development of mental health problems for bereaved children: caregiver warmth, mental health problems of the caregiver, stability of positive family events,

negative events, and family coping (see Sandler, Ayers et al., 2003, for a detailed explanation of the rationale for selecting these factors). The program consists of 12 separate 2-hour group sessions for caregivers and youth (see methods section for more information on the structure of the program) plus two individual family sessions. In a randomized experimental trial the FBP has been demonstrated to improve the participant outcomes that will be investigated in this study, including positive parenting, caregiver grief and depression, and child mental health problems. Two hundred forty-four youths from 156 families were randomly assigned to participate in the FBP or a literature control group. At 11-month follow-up, the FBP was found to decrease caregiver-reported internalizing problems for youths with higher initial levels of internalizing problems. Girls who received the program had lower self- and caregiver-reported internalizing and externalizing problems (Sandler et al., 2003; Schmiege et al., 2006). Post-test increases in positive parenting mediated the effect of the program on girls' mental health problems (Tein et al., 2006), and increases in positive parenting were found at 11-month follow-up for caregivers assigned to the FBP who reported higher initially levels of parenting problems (Sandler et al., 2003). Improvements were also found in caregiver mental health at the 11-month follow-up (Sandler et al., 2003). Intrusive grief thoughts were found to linearly decrease for youth assigned to FBP from posttest to a follow-up six years later. Program effects to increase positive parenting and reduce caregiver mental health problems at 11-months mediated reductions in youth externalizing problems at six years (Tein, Sandler, Ayers, & Wolchik, 2008). These studies utilized intent-to-treat analyses that do

not take into account participation in the intervention, therefore constituting conservative tests of program effects. The current study will extend these findings by investigating how participant responsiveness may impact outcomes from the intervention, and by investigating how responsiveness may account for individual differences in who benefits from the intervention.

As of yet, little research has examined implementation of the FBP. Responsiveness in terms of caregivers' attendance of program sessions was found to average 86% (Sandler et al., 2003). Implementation fidelity in the caregiver program, operationalized as objective observers' ratings of the percentage of manualized material delivered, was found to be quite high (89%) and was not significantly related to program effects on children's mental health outcomes (Sandler et al., 2003; Schmiege, Ayers, Sandler, & Tein, 2003). Schmiege and colleagues (2003) found that caregivers' completion of homework that is specific to a dimension of parenting (e.g. warmth) was associated with improvement in that dimension of parenting 11 months later. This finding, although specific to a single domain of outcomes and a single aspect of responsiveness, is consistent with the hypothesized effects of behavioral and subjective responsiveness to be studied in the current proposal. Thus, the current proposal extends prior research on the implementation of the FBP by providing a conceptually-based broad assessment of behavioral and subjective measures of responsiveness to the intervention and by assessing the degree to which multiple measures of responsiveness are associated with changes in outcome variables following the FBP. The study will focus on measures of responsiveness to the parenting

component of the program because this component targets parental warmth, discipline, and parent mental health problems, which are the most consistent mediators of FBP program effects.

The Proposed Study

The proposed study addresses an understudied area of prevention science, the role of responsiveness as a mediator of the relation between baseline participant characteristics and outcomes from a manualized parent-focused preventive intervention. It conceptualizes two domains of responsiveness to group-based preventive interventions, a behavioral domain measured by attendance, homework completion and quality, and reported skill use, and a subjective domain measured by perceived group environment, satisfaction with the program, and evaluation of the helpfulness of program skills. While prior research has assessed different aspects of these two domains of responsiveness, they have not been studied systematically within a broader conceptual framework. The study will test a multi-measure measurement model for the assessment of the dimensions of responsiveness. The study will also test how baseline participant characteristics, including youth mental health problems, parent mental health problems and grief, and positive parenting, predict the dimensions of responsiveness, and how the dimensions of responsiveness predict changes in these participant characteristics. The study will also test responsiveness as a mediator of the relation of baseline participant characteristics to change in these characteristics lasting nearly a year after the intervention (see Figure 1). These outcome variables have been selected either because the FBP has been found to

have effects on these variables at the 11-month follow-up, or, in the case of caregiver grief, because they are hypothesized to be related to participation in a group program and are proposed to be influenced by the intervention.

These questions will be addressed using data from a controlled, randomized preventive intervention for bereaved youth and their caregivers. The rare nature of the high-risk sample, the existence of strong empirical support for the intervention's efficacy, and the theoretical relevance of baseline family characteristics to responsiveness makes this an ideal sample for studying responsiveness in a preventive intervention. A better understanding of the nature and significance of responsiveness within preventive interventions will inform future efforts to implement prevention programs in a way that maintains their effectiveness when delivered in community settings. Studying responsiveness may enable us to predict and explain differential outcomes from prevention programs for families with different characteristics and modify programs to be more effective in the future. This conceptualization of implementation may also provide information about practical tools for monitoring program implementation in community settings. Aspects of responsiveness that are found to be related to program outcomes will be particularly important to monitor and maintain.

Methods

Sample

The study participants are caregivers who participated in the intervention condition of a randomized experimental trial of the FBP and their children. A full description of recruitment and eligibility criteria has been presented elsewhere

(Sandler et al., 2003) and will only be briefly described here. Participants were recruited using a number of methods, including media presentations, presentations to agencies that had contact with bereaved families, and mail solicitation. Participation was dependent on multiple eligibility criteria including: a) death of a biological parent or parent figure between four and 30 months prior to the beginning of the intervention, b) at least one youth in the family being between 8 and 16 years of age, and c) family members not currently receiving other mental health or bereavement services. All families meeting the criteria were invited to participate, and all children within the family who were in the target age range were considered eligible. Caregivers and youth who scored above clinical cut-points on screenings of depression were excluded from the study and referred to more intensive services.

One hundred and fifty-six families with 244 children ages 7-16 (M = 11.4, SD=2.4) were assigned to either the FBP (90 families: 90 caregivers, 135 children, 73 boys) or a self-study bibliotherapy program. Families had on average 1.6 children. Parental death occurred an average of 10.8 months (SD = 6.4) prior to initial data collection. Fifty percent of the youth were male. Ethnicity in the overall sample was non-Hispanic Caucasian (67%), Hispanic (16%), African American (7%), Native American (3%), Asian or Pacific Islander (1%), and Other (6%). Cause of parental death was illness (68%), accident (20%), and homicide/suicide (12%). Median family income ranged from $30,001 to $35,000 annually. Mean caregiver age was 41.2 (SD=8.6) and 62% were female. This study uses data only from the 90 families assigned to participate in the FBP.

Although approximately 10 families chose to have two caregivers participate in the FBP, only one caregiver per family was included in the current study. The caregiver who was the surviving biological parent or who was identified as the primary caregiver was selected for each family. For models that included a child mental health variable, a target child from each family was selected at random.

Procedure

The FBP consists of 12 separate two-hour caregiver group sessions and child/adolescent group sessions and four conjoint exercises involving caregivers and youth. The caregiver group focuses on improving positive parenting, including creating a stable and positive youth-caregiver relationship, teaching effective discipline strategies, decreasing caregiver mental health problems, and decreasing children's exposure to stressful events. The program utilizes a number of techniques, handouts, and exercises that were found to improve parenting in a successful intervention for divorced families (Wolchik et al., 2000). The child/adolescent version of the program focuses on improving youth positive coping strategies, coping efficacy and communication skills, and provide an outlet to discuss grief-related experiences and feelings. The program utilizes cognitive reframing techniques (Meichenbaum, 1986) and problem solving skills (Weissberg et al., 1988) to improve the quality of youth-caregiver interactions (Wolchik et al., 2000). Eleven FBP caregiver groups were conducted. Participants in the self-study bibliotherapy condition received three books about grief at one-month intervals, accompanied by an outline of the topics covered in the books.

Four assessments were conducted, although only data from the first three assessments were used in the current study. Time 1 data was collected prior to randomization. Times 2 and 3 were collected three months (intervention post-test), and 14 months (11 months post-test) respectively, after Time 1. Time 4 data, which will not be used in the current study, was collected approximately six years after baseline assessment. Youths and caregivers were interviewed separately by trained interviewers at home or university. Adults signed informed consents and minors signed assent forms. Caregivers received $40 compensation for Time 1, 2, and 3 interviews concerning one child, with $30 offered for each additional child.

Measures

Measures of Subjective Responsiveness

Group Environment. The 9-item Cohesion, Leader Support, and Expressiveness subscales of the Group Environment Scale (GES; Moos, 1994) were administered to members of the caregiver groups at post-test to report on their perceptions of their groups. Originally developed for use with a large variety of social environments, including task-oriented groups, group psychotherapy, and mutual support groups, the GES consists of ten subscales. The measure was standardized with data from over 2,400 participants from 305 groups (Moos, 1994), and was found to have internal consistencies ranging from .69 to .86. Items include statements such as "Members of this group feel close to each other" for Cohesion, "The leader goes out of his/her way to help members" for Leader Supportiveness, and "It's ok to say whatever you want to in this group" for Expressiveness. The

original scale asks participants to indicate their agreement with statements with "yes" or "no," but the response format was changed to a Likert scale of 1 ("Not at all true") to 4 ("Very true") to increase variability in responses. Other studies have also used a Likert scale response format with the GES items (e.g. Dillman-Carpentier et al., 2007). The Cohesion, Leader Supportiveness, and Group Expressiveness subscales were found to have Cronbach's alphas of .75, .66, and .64 in our sample, respectively.

Participant Satisfaction. At post-test, participants completed a 6-item scale evaluating the helpfulness of the program (See Appendix A). Participants responded to items on a scale of 1 ("Not at all helpful") to 5 ("Very helpful"). Scores on these six items were averaged to create an overall satisfaction score. The scale was found to have a Cronbach's alpha of .97 in our sample.

Program Skill Helpfulness. At post-test, participants rated the 27 primary skills taught in the program on a scale of 1 ("Not at all helpful") to 5 ("Very helpful") (See Appendix B). Ratings were averaged across the 27 skills to create an average rating of skill helpfulness. The scale was found to have a Cronbach's alpha of .97 in our sample.

Measures of Behavioral Responsiveness

Attendance. The number of caregiver sessions attended ranged from zero to 14 with optional make-up sessions. Attendance was defined as the percentage of caregiver sessions attended, including make-up sessions, out of 14.

Homework Completion. Participants completed a weekly worksheet reporting on their use of skills assigned as homework during the previous session. For each

worksheet, participants checked "yes" or "no" as to whether they completed each of between three and eight assigned skills. If participants did not check either "yes" or "no" on a particular skill, the skill was counted as not practiced. The percentage of skills practiced during the week was calculated for each participant. If participants did not complete a homework worksheet for a particular session, they were assigned a 0% on Homework Completion for that session. Homework Completion was averaged across all sessions to calculate an Average Homework Completion variable.

Homework Quality. Participants reported each week on their use of skills assigned as homework during the previous session. For between one and five skills per session, parents completed a checklist of the skill components to indicate the quality with which they practiced the skill. If caregivers indicated that they had practiced that assigned skill during the week, they were asked to indicate "yes" or "no" as to whether they had completed each required component of the skill, with more "yes" checks indicating higher quality. For example, if the caregiver indicated "yes" to having practiced the Family Fun Time skill, they were then asked to check off whether they completed the following components: "Did you let the children choose the activity?" "Did it last two hours?" "Was it inexpensive?" and "Did you avoid fighting?" We calculated the percentage of components that were completed for each skill to establish the 'quality' with which the skill was practiced. These percentages were averaged together for each session to create an average 'quality' of homework completed for each session. If caregivers did not complete the homework sheet for a given session, no

homework ‘quality’ was entered for that session and the missing worksheet did not count against the caregiver’s average quality across sessions score. . Finally, the average ‘quality’ of skills practices for each session were averaged together to calculate an overall quality of homework completion across all sessions. The Cronbach’s alpha, or reliability of homework quality across 10 sessions was .87.

Homework Satisfaction. For each assigned skill that was practiced during the week, caregivers were asked to rate “How well did it go?” on a scale from 1 (not well at all) to 5 (very well). The caregiver ‘satisfaction’ for each assigned skill was averaged to create average homework satisfaction for each session. Finally, an overall ‘homework satisfaction’ variable was created by averaging homework satisfaction across all sessions. The scale had a Cronbach’s alpha of .67 across different sessions.

Overall Program Skill Use. At post-test, participants completed a survey of how often they used the 27 primary program skills overall (see Appendix C). They rated their use of each of the 27 skills on a Likert scale from 1 (“not at all”) to 5 (“a lot”). Average skill use was calculated by averaging ratings across all skills. The scale was found to have a Cronbach’s alpha of .95 in our sample.

Measures of Participant Baseline and Outcome Variables

Caregiver Grief. Caregiver grief was assessed using the Texas Revised Inventory of Grief (TRIG: Faschingbauer, 1981) at Times 1 and 3. The 13-item “Present Feelings” scale, which pertains to current feelings about the deceased loved one, was used in the current study. The measure has been criticized because several items show little variation in response and because many of the items represent

normative aspects of grief while a few assess more problematic aspects of grief (Neimeyer & Hogan, 2001). However, the measure has been found to be reliable with both child and adult samples (see Sandler, Ma, et al., 2010). Caregivers were asked to rate their agreement with statements such as "I can't avoid thinking about my [insert relationship to the deceased]" on a scale of 1 (completely true) to 5 (completely false). Two items that showed high skewness or kurtosis were dropped, leaving 11 items. The scale has reported Cronbach's alphas of .86 and .89 for a developmental and replication sample, respectively (Faschingbauer, DeVaul, Zisook, 1987).

Caregiver Depression. Caregiver depression was assessed using the Revised Beck Depression Inventory (BDI, Beck & Steer, 1984) at times 1 and 3. The BDI contains 21 groups of statements of which the participant is asked to choose the statement that best describes how they have been feeling over the past week. The measure is found to have good test-retest reliability (ranging from .60-.90 in non-psychiatric populations) and a Cronbach's alpha of .86 (Beck & Steer, 1984). The measure has high correlations with clinical ratings and other measures of depression, and has been found to discriminate depression from other psychiatric diagnoses (Beck & Steer, 1984). Caregivers scoring above a cut-point of 30, considered to be "severe depression" by the 1993 manual, were screened out of the current study and referred to more intensive mental health services.

Caregiver-Reported Youth Internalizing, Externalizing, and Total Behavior Problems. The internalizing problems and externalizing problems subscales of the Child Behavior Checklist (CBCL: Achenbach, 1994) were used to measure

caregiver perceptions of child behavior problems at Times 1 and 3. The CBCL is a 134-item parent-report survey of child mental health. Caregivers are asked to rate a series of statements about their child's behavior and emotions over the past month as 0 ("Not true, as far as you know"), 1 ("Somewhat or sometimes true"), or 2 ("Very true or often true"). Internalizing and externalizing scales have Cronbach's alphas of .86 and .92, respectively, in our sample. An overall "Total Behavior Problems" subscale was created by combining the internalizing and externalizing subscales. T-scores were calculated for each child based on norms for that child's age and gender. Again, a target child from each family was chosen at random.

Positive Parenting. A composite variable of caregiver-report, child-report, and observational measures of parenting behaviors will be used to measure positive parenting at Times 1 and 3. The variable includes parallel parent and child-report versions of the Acceptance and Rejection subscales from the Child Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965; Teleki, Powell, & Dodder, 1982), a Dyadic Routines subscale from the Family Routines Inventory (Jensen, Janes, Boyce, & Hartnett, 1983), a Positive Events subscale from the General Life Events Schedule for Children (Sandler & Guenther, 1985), and an 8-item abbreviated version of the Parent Perception Inventory (Hazzard, Christensen, & Margolin, 1983). Children completed the 10-item Sharing Emotions with Parents scale (Ayers, Sandler, Twohey, & Haine, 1998), and parents completed the 6-item Talk with Reassurance subscale of the Parent Expression of Emotion Questionnaire (Jones & Twohey, 1998). Behavioral observation coding of

parental warmth were conducted on 12-minute videotaped segments in which the child and caregiver discussed two issues from the Parent Issues Checklist (Prinz, Foster, Kent, & O'Leary, 1979). The videos were coded for positive affect tone (IRR = .77) and attending, comprised of back channeling (IRR = .83) and head nods (IRR = .80). Consistent discipline was measured by child- and parent-report versions of the Inconsistent Discipline subscale of the CRPBI and the 6-item parent-report Follow-Through subscale of the Oregon Discipline Scale (OSLC, 1991). The measures have previously been combined using a measurement model (For details see Kwok et al., 2005), and index scores created from the measurement model were used in the current study.

Results

Analyses proceeded in two stages. In the first stage, a measurement model of the underlying dimensions of responsiveness was developed using the ten individual measures (group cohesion, leader supportiveness, group expressiveness, overall program satisfaction, perceived skill helpfulness, attendance, homework completion, homework quality, homework satisfaction, and overall skill use). Prior to testing the measurement model, descriptive statistics were calculated to examine the psychometric qualities, skewness, kurtosis and intra-class correlations of each of the scales (See Table 1). The skewness and kurtosis were somewhat elevated for several implementation variables (see Table 1), therefore, a Maximum Likelihood – Robust (MLR) estimator of standard errors was used throughout analyses to account for non-

normality of the data. Correlations between all study variables were also calculated (see Table 2).

Intra-class correlations (ICCs) were calculated to determine whether clustering of participants within intervention groups accounted for a substantial portion of score variance. The ICCs for six of the responsiveness variables were less than .05, a value that is considered to be indicative of insubstantial effects of clustering. For four of the measures, the ICC was above .05 (Overall Program Satisfaction, ICC = .06; Group Cohesion = .11; Group Expressiveness = .09; Homework completion, ICC=.14). Elevated ICCs indicate that a significant proportion of a variable's variance can be attributed to membership within a group or "cluster," resulting in incorrect estimates of standard errors and test statistics. An MPlus software feature that accounts for participant clustering was used to correct standard errors and test statistics in path models that did not utilize latent variables. In path models with latent variables, there was an insufficient sample size to account for clustering of data.

Confirmatory Factor Analysis (CFA) in MPlus software (Version 5.2, Muthén & Muthén, 2008) was used to test the proposed model of responsiveness consisting of two underlying dimensions: behavioral responsiveness and subjective responsiveness (see Figure 1). Full Information Maximum Likelihood (FIML) was used to account for missing data in all analyses. Analyses did not account for clustering of individuals within treatment groups. The results of the CFA indicated that the model was a poor fit for the data: $X^2(19)=88.40$, $p<.001$; RMSEA = .20; SRMR = .18. Analyses then continued in an exploratory vein

with Exploratory Factor Analysis (EFA) in MPlus to determine whether a different number of factors would better fit the data. FIML was used to account for missing data. The results of the EFA indicated that a two-factor model was a poor fit for the data: $X^2(26)=56.86$, $p<.001$; RMSEA = .12.The varimax-rotated loadings for the two-factor model (see Table 3) showed that the three subscales of the Group Environment Scale loaded on the same factor, three subscales related to utilizing program skills (Homework Satisfaction, Homework Quality, and Overall Skill Use) loaded highly together on another factor, whereas three variables believed to reflect participants' belief in the program usefulness (Program Satisfaction, Attendance, and Perceived Skill Helpfulness) as well as the Homework Completion variable loaded highly on both factors. The EFA indicated that a three-factor model was a better fit for the data than the two factor model: $X^2(18)=28.04$, $p=.06$; RMSEA = .06). Varimax-rotated loadings for the three-factor EFA, however, indicated that Homework Completion was the only variable loading on the third factor. Another EFA was conducted with Homework Completion dropped from the analysis. This EFA again indicated that the fit of a two-factor model was improved as a result of dropping Homework Completion: $X^2(19)=27.94$, $p=.08$; RMSEA = .07. However, the three-factor model continued to be a superior fit for the data than the two-factor model: $X^2(12)=11.23$, $p=.51$; RMSEA = 0.00 (see Table 4 for 3-factor EFA loadings).

Based on the findings from the EFA and theory-based methods of grouping the implementation variables, a three-factor model was created. A CFA was conducted in MPlus to test the loading of these theoretically-associated

variables on three factors (see Figure 2). An initial CFA was conducted to include all ten implementation variables, including Homework Completion. The fit for this model was poor $X^2(32)=71.05$, $p<.001$; RMSEA = .12, SRMR=.28. The same CFA was run without Homework Completion, and this time the RMSEA fit index indicated good fit while the Chi square value and SRMR indicated marginal fit: : $X^2(32)=38.00$, $p=.04$; RMSEA = .08, SRMR=.24 (see Figure 2 for loadings). The three factors corresponded to three theoretical aspects of responsiveness: "Skill Use" (Homework Quality, Homework Satisfaction, and Overall Skill Use), "Program Liking" (Session Attendance, Overall Program Satisfaction, and Perceived Skill Helpfulness), and "Perceived Group Environment" (consisting of the three subscales of the Group Environment Scale, group cohesion, leader supportiveness and group expressiveness). The three dimensions of responsiveness were also found to be highly correlated with each other (see Figure 2), particularly "Program Liking" with both "Skill Use" and "Perceived Group Environment." A two-factor CFA was also conducted without the Perceived Group Environment latent variable and three indicators. The fit was improved from the three-factor model: $X^2(8)=11.19$, $p=.16$; RMSEA = .07, SRMR=.20: Given the correspondence of the three-factor model with the theoretical model and that the small sample size used in the study may preclude the identification of highly significant effects, the authors decided to proceed with the aforementioned three-factor model despite the marginally acceptable fit of the model

The second stage of the analyses consisted of testing models in which the latent variables derived from the measurement model in the first stage of analyses were tested as a mediator between baseline variables and the same variables 11-months following the program. Mediation is tested by calculating an equation for the independent variable predicting the mediator variable and an equation for the mediator variable predicting the dependent variable after controlling for the independent variable (MacKinnon, 2008). Figure 3 shows the conceptual meditational model, with the *a* path representing the path from the independent variable to the theoretical mediator, the *b* path representing the path from the theoretical mediator to the dependent variable and *c*' path representing the path from the independent variable to the dependent variable accounting for the effect of the mediator. The significance of the mediated effect for each model is determined by multiplying the *a* and *b* path coefficients and then using the standard error to calculate confidence limits (MacKinnon & Dwyer, 1993; Sobel, 1982).

The mediational models were tested using structural equation modeling (SEM) in MPlus software (Version 5.2, Muthén & Muthén, 2008). Separate models were tested for each of eight family variables: caregiver-reported youth externalizing problems, caregiver-reported youth internalizing problems, caregiver-reported youth behavior problems, positive parenting, caregiver-reported depressive symptoms, and caregiver-reported grief symptoms. As seen in Figure 3, the scores on each of these variables at baseline constitute the independent variable for the mediational model and the scores on the same

variable at the 11-month follow-up constitute the dependent variable. Each of the three latent responsiveness variables derived from the measurement model in the first stage of analyses were tested as mediators between each of the participant variables at baseline and 11-month follow-up. Due to insufficient degrees of freedom, statistical techniques to account for the influence of participant clustering within intervention groups could not be used. Given sample size limitations that may preclude large effects from being statistically significant, marginally significant effects will be described in the paper. As seen in Table 5, the *a* path from the baseline variable to the responsiveness mediator were significant or marginally significant for four of the 18 models: more child externalizing problems to lower levels of skill use ($p < .001$); more overall child behavior problems to less skill use ($p<.05$); more caregiver depression to less skill use ($p<.10$), and more baseline positive parenting to more skill use ($p<.001$). Four of the eighteen models showed a significant or marginally significant *b* path from the responsiveness mediator variable to the dependent variable while controlling for the dependent variable at baseline: program skill use was related to more caregiver depressive symptoms ($p<.05$), positive perceived environment was related to less caregiver grief ($p<.05$) and less caregiver depression ($p<.10$), and more skill use was related to more positive parenting ($p<.01$). Only one model found support for the prediction that program responsiveness would mediate the relation between the program baseline score and 11-month follow-up score. The *a* path and *b* path of the model with the "Skill Use" latent variable as the mediator between Time 1 positive parenting and change in positive parenting 11 months

later were significant (see figure 9) and the 95% confidence interval of the mediated effect ranged from .02 to .24. The fit statistics indicated that the model fit the data well: $X^2(4)$ =1.65, p =.73; RMSEA = 0.0, SRMR = .02. Because the confidence interval did not contain zero, the mediated effect is significant.

SEM was used to test half-longitudinal versions of the mediational models described above, that is, models in which the dependent variable was measured at Time 2 (three months after Time 1 at intervention post-test), concurrently with the theoretical mediators (latent responsiveness variables). In these models, the following *a* paths were significant or marginally significant: more baseline total child behavior problems to less skills use ($p<.05$), more baseline caregiver depression to the more negative perceived group environment ($p<.10$), and more baseline positive parenting to more skill use ($p<.01$) (see Table 6). The following *b* paths were significant or marginally significant: more positive perceived group environment to more concurrent total child behavior problems ($p<.05$); more positive perceived group environment to less concurrent caregiver grief ($p<.10$), and more skill use to more concurrent positive parenting ($p<.01$). Again, skill use mediated between Time 1 positive parenting and Time 2 positive parenting (95% Confidence Interval .02 to .17).

The meditational models described above were also tested using index scores to represent each of the three latent responsiveness mediator variables (see Table 7). This technique allowed for the use of MPlus software features to account for participant clustering within intervention groups. Index scores were created for each of the three latent responsiveness variables by converting the

responsiveness variables to z-scores and averaging together the three z-scores representing the variables that loaded best onto each of the three factors. The percentage of homework competed (which was dropped from the factor analyses), was also tested as a mediator between baseline participant variables and changes in these variables at 11-month follow-up. These analyses showed a similar pattern of effect to the models that utilized a latent mediating variable. As in the latent mediator models the following *a* paths were significant or marginally significant: more parent-reported child externalizing behaviors to less skill use ($p<.05$); more parent-reported total child behavior problems to less skill use ($p<.10$); more positive parenting at baseline to more skill use ($p<.05$). In the index score mediator models, there were also significant *a* paths from more positive parenting at baseline to more positive perceived group environment ($p<.05$), more program liking ($p<.05$), and a higher percentage of homework completed ($p<.01$). As in the latent mediator models, there was a significant *b* path from more skill use to more positive parenting at 11-month follow-up ($p<.001$). Unlike in the latent mediator models, there was a significant *b* path with a more positive index score of perceived group environment leading to more reported child behavior problems at 11-month follow-up ($p<.05$), and a marginally significant *b* path with higher percentage of homework completed leading to more reported caregiver depression at 11 months ($p<.10$). As in the latent mediator model, the skill use index variable significantly mediated the relation between Time 1 positive parenting and positive parenting 11 months later, and the mediated effect was significant (95% CI: .01 to .18).

Discussion

Participant responsiveness refers to the extent to which participants engage in interventions. Although it is logical to believe that participants must be responsive to interventions in order to achieve the intended program effects, little is known about how to measure responsiveness and how it might relate to families' pre-existing characteristics and their outcomes following participation in a prevention program. This paper tested a multi-dimensional model to measure participant responsiveness to a manualized group preventive intervention. The paper also tested the relations between participant characteristics and caregiver responsiveness to the intervention and the relations between dimensions of responsiveness and caregiver and child outcomes from participation in a manualized prevention program. This study also tested responsiveness as a mediating variable in the relation between parenting and caregiver and youth mental health at baseline and changes in these variables 11 months after completing the intervention. The findings will be discussed in terms of their contribution to advancing our understanding of the measurement of responsiveness and of how the study of responsiveness can be useful in understanding the implementation of a preventive intervention.

The first important finding of this study concerns the measurement model of responsiveness. The best fitting measurement model consisted of three dimensions. Participant "Liking" of the program refers to the extent to which participants were satisfied with the intervention and usefulness of the program skills and attended sessions. "Skill Use" refers to participant use of the parenting

and coping skills that were taught during the program and assigned for weekly practice, including the fidelity with which participants practiced the skills, the valence of their perceptions of skills practices, and their overall use of the skills. "Perceived Group Environment" refers to participants' perceptions of the extent to which the intervention group is warm and cohesive, group members were able to freely express themselves, and the group leader was supportive of group member expressiveness and growth. A measurement model of these three correlated dimensions of responsiveness fit the data marginally, indicating that these factors represented distinctive but related aspects of responsiveness. Although the fit of the three-factor model was marginal, it must be considered that the sample size of the study limited degrees of freedom making it more difficult to find a well-fitting model.

This study is the first to use multiple measures to capture participant responsiveness and the first to propose a multi-dimensional model of responsiveness. The evidence to support "skill use" as a behavioral component of responsiveness and "program liking" and "perceived group environment" as subjective components of responsiveness has implications for the study of participant responsiveness to preventive interventions. Studies that monitor only one aspect of responsiveness or utilize only one measure may not adequately capture the construct of responsiveness. The current methodology constitutes an important contribution to the field of implementation science because the measures can be used to measure responsiveness in virtually any prevention program, as opposed to previous measures of engagement that were tailored to the

format and content of specific programs (Dusenbury et al., 2005; Forgatch et al., 2005).

A second set of contributions of the current study are the findings that several baseline participant variables, including positive parenting and caregiver reports of child mental health problems, were related to the three dimensions of participant responsiveness. Parents who reported more child externalizing problems or more overall child behavior problems at baseline were found to have poorer skill use than other parents. This finding was consistent across models that utilized a latent skill use variable and did not account for participant clustering within treatment groups and models that utilized a standardized skill use index score and did account for clustering. Another consistent finding was that parents who reported more positive parenting practices at baseline had more skill use throughout the program across all types of models, and also completed a higher overall percentage of homework assignments. More positive parenting at baseline was also significantly associated with more liking of the program and a more positive perception of the group environment in models that used index scores and accounted for clustering.

This author proposed that more reported child mental health problems and less positive parenting at baseline would constitute a "perceived need for help" and therefore be associated with more skill use, more program liking and more positive perceptions of the group environment. The study's findings were in the opposite direction from what was predicted and were inconsistent with existing evidence of more engagement by higher-risk families (August et al., 2003; Spoth

& Redmond, 1995; Garvey et al., 2006; Garland, Aarons, Saltzman, & Kruse, 2000) and previous findings that the benefits of the FBP are greater for higher-risk families (Sandler et al., 2003). It is important to note that these studies generally measured responsiveness as attendance and did not take into account the multiple dimensions of responsiveness measured in this study. However, it makes sense that parents with children who have more behavior problems would have more difficulty implementing program activities, and would thus exhibit less skill use. These parents would also see fewer positive results from the program and receive less positive feedback in sessions, leading them to like the program less and perceive the group environment less positively. Similarly, parents who are already using positive parenting practices may feel that the program's skills are congruent with their personal perspectives on parenting and therefore put more effort towards increasing their skill use than families who previously utilized parenting strategies that were different from those taught in the program. Parents whose prior parenting practices were in line with philosophy of the program would also receive more positive reinforcement from the group and like the overall program and group environment more than other parents.

It is difficult to understand why baseline positive parenting was only significantly related to program liking and perceived group environment in models that accounted for clustering, as these models are more conservative than those that do not account for clustering. The effects may differ between the two types of models in part because the responsiveness variables were combined into a standardized index score in the clustered models that gave equal weight to each

variable, as opposed to the latent construct in the unclustered models that allowed individual variables to be weighted differently. Because the models that account for clustering are more conservative, it may be that they better represent the effects of baseline participant characteristics on responsiveness to the intervention. Together, these findings indicate that baseline participant characteristics may be used to identify mechanisms that may be manipulated to increase the engagement of families with more child and parenting problems within efficacious prevention programs.

There was a marginally-significant finding that caregivers who reported less depression at baseline were more likely to use the program skills, but only for the latent variable model that did not account for clustering. There was also a marginally-significant trend in the half-longitudinal models that caregivers who reported more depressive symptoms at baseline perceived the group as less supportive, cohesive, and expressive than other parents. These trends for parents who report more depressive symptoms to have less responsiveness across all three dimensions is consistent with the predictions; impairment related to depression would inhibit caregivers' abilities to devote time and energy to using program skills and prevent them from fully engaging in the program and the group environment. These marginally significant relations are encouraging for understanding which families are more likely to engage in prevention programs, but because the effects are only marginally significant they are only seen as suggestive. Further research with larger samples will be necessary to further understand these effects.

An interesting pattern of relations were found between the responsiveness variables and change in outcomes assessed at post-test and at 11-month follow-up. Parents who used the program skills better reported a greater increase in positive parenting practices at post-test and 11 months after the program than families with poorer skill use. This finding is consistent with the theory of this program, which proposes that the use of the program skills increases positive parenting practices in a manner that lasts over time. Caregivers who perceived the group environment to be more positive reported significantly less grief at the 11-month follow-up, although this effect was not significant when accounting for clustering. They also reported marginally less grief at posttest. This finding is consistent with previous studies which reported that the group environment (i.e. perceived cohesion, leader supportiveness and group expressiveness) within psychotherapy groups was related to improvements in participants' mental health. (e.g. Budman et al., 1989; Orlinsky et al., 1994). Although the FBP is a structured, didactic program rather than a process-oriented group, these caregivers' grief may have decreased due to the normalization of their experiences and supportive interactions that took place within the group. The finding that these effects were not significant when accounting for clustering within treatment groups indicates that this finding should be interpreted with caution, as the clustered models are more conservative.

Several relations between participant responsiveness and program outcomes were contrary to the author's hypotheses. Caregivers who used the skills more throughout the program were found to report more depression at the

11-month follow-up than other parents. This relation was not found at the post-test or when accounting for clustering at the 11-month follow-up, however, so it may not be a reliable effect. Similarly, parents who completed a higher percentage of homework reported marginally more depression at the 11-month follow-up when accounting for clustering. These findings are surprising in light of prior studies that found that caregivers' depressive symptoms decreased following participation in the Family Bereavement Program compared to a control group (Sandler et al., 2003).Further research with larger sample sizes is needed to determine the reliability of these findings. Caregivers who perceived a more positive group environment reported more child behavior problems at posttest only, but not at the 11-month follow-up. When interpreting this finding it is important to consider that the group environment measures and posttest reports of child behavior were administered simultaneously. It is possible that as children's behavior problems worsened, parents had a greater need for support and received more support from the group. Parents may also have become increasingly sensitized to their children's misbehaviors due to other group members' descriptions of their own children's problems.

A fourth important finding of the study was that skill use mediated the relation between baseline positive parenting and improvements in positive parenting following the program. Parents who reported more positive parenting practices at baseline went on to use the program skills better than other parents, and in turn, reported greater increases in positive parenting practices at post-test and at the 11-month follow-up. This finding provides important evidence that the

use of program skills served as a mechanism for increasing positive parenting, and is consistent with the program's theory. The comparatively poorer skill use and improvement in positive parenting for families with poorer baseline parenting indicates the need for the program to go further in helping parents who have more initial parenting difficulties and struggle to use the skills correctly.

Overall, the results of this study emphasize the importance of understanding participant responsiveness to preventive interventions in order to maximize the effects of such programs. Responsiveness is a multifaceted construct comprising subjective as well as behavioral components, and measuring multiple aspects of responsiveness better capture the construct than a single measure. This study found that aspects of families' backgrounds, especially the severity of child behavior problems and less positive parenting practices, were related to less engagement in the Family Bereavement Program. Future research should test approaches to strengthen the engagement of these higher-risk families with the program. The use of program skills was found to predict changes in parenting following the program. Given prior findings that program effects on parenting are a significant mediator of program effects on mental health outcomes, this finding indicates that it may be particularly important for the FBP to monitor and strengthen parents use of program skills.

This study has several limitations. The sample size of 90 families is relatively small, making it difficult to find significant effects. Some indices implied that the fit of the measurement model was good while others indicated marginal fit. Further research is needed with larger samples to affirm the validity

of the study's findings. Furthermore, these models have been tested within an intervention targeted at bereaved families. Certain aspects of responsiveness may be more salient for families who are experiencing different stressors, or responsiveness may differ within programs that teach other types of skills or utilize less structured or didactic approaches. It will be important to replicate these findings within other types of preventive interventions and with other populations. Overall, the findings of this study constitute an important step in the study of participant responsiveness to prevention programs.

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Table 1

Descriptive Statistics of All Study Variables

Variable	N	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach's Alpha	ICC group
Attendance (Not incl. make-up)	*89*	*.79*	*.26*	*-1.79*	*2.61*	N/A	*.03*
Homework Competed (Average percentage)	*89*	*.50*	*.30*	*-.28*	*-1.05*	*.87*	*.14*
Attendance (incl. make-up)	89	.85	.27	-2.18	3.89	N/A	.04
Homework Satisfaction (Avg. %)	79	3.25	.73	-1.26	1.91	.67	.02
Homework Quality (Avg. %)	79	.82	.12	-1.00	.89	.87	0
Program Satisfaction	69	4.40	.77	-2.00	5.20	.97	.06
GES Cohesion	69	3.57	.42	-1.82	3.42	.75	.11
GES Leader Supportiveness	69	3.67	.40	-1.91	4.14	.67	0
GES Expressiveness	69	2.94	.46	-.50	.37	.64	.09
Overall Skill Use	69	3.74	.64	-.85	3.63	.95	0
Overall Skill Helpfulness	68	4.21	.68	-1.59	5.84	.97	0
SKILLS USE INDEX	82	-.04	.95	-1.52	4.07	N/A	0

Table 1, Continued

Variable	N	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach's Alpha	ICC group
PROGRAM LIKING INDEX	89	-.12	1.02	-2.01	4.04	N/A	0
GROUP ENVIRON INDEX	69	-.18	.74	-1.40	1.85	N/A	.06
T1 Parent Depression (BDI)	89	11.44	7.86	.48	-.63	.88	0
T1 Parent Grief (TRIG present events)	88	3.27	.90	-.48	-.25	.93	0
T1 Target Child Behavior Problems	89	57.31	11.18	.28	-.19	N/A	0
T1 Target Child Internalizing	89	57.72	11.43	.17	-.24	.93	0
T1 Target Child Externalizing	89	55.25	10.81	.12	-.73	.95	0
T1 Positive Parenting Index	89	-.02	.50	-.27	-.31	N/A	.06
T3 Parent Depression (BDI)	77	5.63	5.71	1.09	.45	.88	.05
T3 Parent Grief (TRIG present events)	75	2.83	.69	.11	.37	.86	0
T3 Target Child Behavior Problems	76	49.64	12.22	.28	-.27	N/A	.04
T3 Target Child Internalizing	73	50.82	10.72	.57	1.31	N/A	.07

Table 1, Continued

Variable	N	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach's Alpha	ICC group
T3 Target Child Externalizing	74	49.45	12.17	.33	-.91	N/A	0
T3 Positive Parenting Index	77	.17	.45	-.60	.23	N/A	.02

Table 2

Correlation Matrix of All Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Total HW completed	1.0																	
2.Attendance w/ makeup	.59***	1.0																
3. HW Satisfaction	.51***	~0	1.0															
4. HW Quality	.37**	.01	.60***	1.0														
5. Program Satisfaction	.47***	.50***	.18	.15	1.0													
6. GES Cohesion	.34**	.46***	-.04	-.13	.48***	1.0												
7. GES Leader Supp.	.28*	.60***	-.14	-.16	.45***	.81***	1.0											
8. GES Expressive	.16	.11	.12	.02	.13	.44***	.38**	1.0										
9. Overall Skill Use	.27*	.31**	.49***	.54***	.47***	.15	.13	-.01	1.0									
10. Overall Skill Helpful	.28*	.44***	.35**	.40**	.57***	.44***	.38**	.05	.63***	1.0								
11. SKILLS index	.44***	.31**	.86***	.87***	.46***	.18	.12	.05	.86***	.64***	1.0							

Table 2, Continued

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12. LIKING index	.59***	.90***	.25*	.24*	.87***	.56***	.55***	.11	.59***	.85***	.53***	1.0						
13. ENVIR. index	.31**	.46***	.01	-.12	.43***	.91***	.87***	.72***	.09	.34**	.13	.49***	1.0					
14. T1 Parent Depression	-.03	-.04	-.03	-.15	-.23+	-.18	-.29*	-.03	-.22+	-.07	-.18+	-.04	-.20	1.0				
15. T1 Parent Grief	.05	~0	.20+	.02	-.05	.11	-.07	.05	-.16	-.12	.01	~0	-.03	.50***	1.0			
16. T1 Parenting	.25*	.16	.27*	.29**	.07	.19	.12	.15	.34**	.26*	.35**	.17	.16	-.29**	-.14	1.0		
17. T1 Child Internalizing	.11	.16	-.05	-.19+	.07	.10	.24+	.06	-.01	.02	-.04	.12	.15	.48***	.31**	-.27*	1.0	
18. T1 Child Externalizing	-.06	.02	-.34**	-.34**	.06	-.01	.10	-.01	-.14	-.08	-.29**	~.00	.03	.40***	.16	-.42***	.59***	1.0
19. T3 Parent Depression	.11	-.11	.06	.09	-.04	-.30*	-.23+	-.14	.08	-.01	.07	-.09	-.27*	.52***	.33**	-.10	.29*	.26*
20. T3 Parent Grief	.03	-.15	.18	.16	-.11	-.21+	-.10	.03	-.13	-.16	.02	-.17	-.12	.22+	.69***	-.07	.27	.07
21. T3 Parenting	.15	.09	.30**	.28*	.09	.17	.04	.19	.37**	.23+	.40**	.15	.19	-.20*	-.07	.61***	-.28*	-.35**

Table 2, Continued

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
22. T3 Child Internalizing	.13	.09	.03	-.03	.12	.15	.25 +	.08	.08	.02	.05	.05	.19	.25 *	.26 *	-.02	.57 ***	.30 *
23. T3 Child Externalizing	.06	-.01	-.27 *	-.33 **	.09	.06	.14	-.02	-.10	-.14	-.25 +	-.09	.07	.29 *	.19	-.20	.50 ***	.62 ***

p <.10+, p<.05 *, p<.01 ***, p<.001****

Table 3

Varimax-rotated factor loadings for two-factor Exploratory Factor Analysis of responsiveness variables.

Variable	Factor 1	Factor 2
Attendance	.73	.42
Program Satisfaction	.57	.54
Cohesion	.89	.23
Leader Supportiveness	.95	.16
Expressiveness	.50	.05
Homework Completion	.42	.55
Homework Satisfaction	.17	.81
Homework Quality	.04	.81
Total Skill Use	.20	.79
Total Skill Helpfulness	.48	.68

Table 4

Three-factor Exploratory Factor Analysis loadings, without Homework Completion variable

Variable	Factor 1	Factor 2	Factor 3
Attendance	.84	.16	.14
Program Satisfaction	.72	.35	.15
Cohesion	.70	.09	.63
Leader Supportiveness	.80	-.02	.50
Expressiveness	.13	.04	.58
Homework Satisfaction	.05	.81	.20
Homework Quality	.12	.76	-.04
Total Skill Use	.48	.71	-.08
Total Skill Helpfulness	.67	.53	.11

Table 5

Standardized path coefficients (standard errors) and model fit statistics for fully-longitudinal mediational models with latent responsiveness variables as mediators.

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
LIKING	Child Internalizing	.08(.11)	.08(.07)	-.01 to .03	$X^2(4)=3.21$ RMSEA=0.0 SRMR=.04
ENVIRON	Child Internalizing	.15(.16)	.18(.15)	-.03 to .12	$X^2(4)=5.73$ RMSEA=0.07 SRMR = .03
SKILLS	Child Internalizing	-.08(.13)	.09(.10)	-.08 to .02	$X^2(4)=4.92$ RMSEA=0.05 SRMR = .04
LIKING	Child Externalizing	.001(.11)	-.08(.11)	-.02 to .02	$X^2(4)=4.74$ RMSEA=.05 SRMR=.06
ENVIRON	Child Externalizing	-.002(.15)	.13(.10)	-.04 to .04	$X^2(4)=3.34$ RMSEA=0.0 SRMR = .03
SKILLS	Child Externalizing	-.36(.1)**	-.12(.13)	-.05 to .15	$X^2(4)=5.78$ RMSEA=.07 SRMR = .04
LIKING	Total Child Behavior Problems	.06(.09)	.04(.08)	-.01 to .02	$X^2(4)=4.89$ RMSEA=.05 SRMR = .06
ENVIRON	Total Child Behavior Problems	.09(.16)	.17(.12)	-.04 to .09	$X^2(4)=4.59$ RMSEA=.04 SRMR = .03
SKILLS	Total Child Behavior Problems	-.24(.12)*	.003(.12)	-.06 to .06	$X^2(4)=3.93$ RMSEA = 0.0 SRMR = .04
LIKING	Caregiver Depression	-.07(.11)	.04(.10)	-.02 to .01	$X^2(4)=84.76$** RMSEA = 0.0 SRMR = .05
ENVIRON	Caregiver Depression	-.20(.15)	-.19(.12)	-.02 to .13	$X^2(4)=8.64$ RMSEA=.11 SRMR=.03

Table 5, Continued

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
SKILLS	Caregiver Depression	-.20(.12) †	.22(.10)*	-.12 to .005	$X^2(4)=5.85$ RMSEA = .07 SRMR=.03
LIKING	Caregiver Grief	-.013(.13)	-.11(.11)	-.03 to .03	$X^2(4)=1.14$ RMSEA=0.0 SRMR=.03
ENVIRON	Caregiver Grief	-.04(.09)	-.21(.08)*	-.04 to .05 Error	$X^2(4)=5.66$ RMSEA=.07 SRMR=.04
SKILLS	Caregiver Grief	.02(.16)	.06(.09)	-.02 to .02	$X^2(4)=14.76$* RMSEA = .17 SRMR = .07
LIKING	Positive Parenting	.13(.12)	.12(.19)	-.03 to .09	$X^2(4)=5.16$ RMSEA=.06 SRMR=.05
ENVIRON	Positive Parenting	.17 (.10)	.07(.14)	-.03 to .07	$X^2(4)=2.03$ RMSEA=0.0 SRMR=.03
SKILLS	Positive Parenting	.32(.12)**	.35(.11)**	.02 to .24	$X^2(4)=1.65$ RMSEA = 0.0 SRMR = .02

p<.10 †, p<.05 *, p<.01 **, p<.001***, p <.0001****

Table 6

Standardized path coefficients (standard errors) and model fit statistics for half-longitudinal mediational models with latent responsiveness variables as mediators.

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
LIKING	Total Child Behavior Problems	.05(.09)	.22(.08)	-.03 to .06	$X^2(4)=4.69$ RMSEA=.04 SRMR = .07
ENVIRON	Total Child Behavior Problems	.07(.17)	.18(.08)*	-.05 to .08	$X^2(4)=5.41$ RMSEA=.06 SRMR = .03
SKILLS	Total Child Behavior Problems	-.24(.12)*	.06(.12)	-.09 to .04	$X^2(4)=5.65$ RMSEA=.07 SRMR = .04
LIKING	Caregiver Depression	-.07(.10)	-.07(.11)	-.01 to .03	$X^2(4)=7.64$ RMSEA=.10 SRMR = .02
ENVIRON	Caregiver Depression	-.26(.15) †	-.14(.15)	-.04 to .14	$X^2(4)=12.49$* RMSEA=.15 SRMR = .05
SKILLS	Caregiver Depression	-.20(.12)	-.03(.14)	-.05 to .07	$X^2(4)=6.20$ RMSEA=.08 SRMR = .04
LIKING	Caregiver Grief	-.02(.13)	-.07(.07)	-.02 to .02	$X^2(4)=5.33$ RMSEA=.06 SRMR = .04
ENVIRON	Caregiver Grief	-.05(.12)	-.11(.06) †	-.02 to .04	$X^2(4)=.98$ RMSEA=.00 SRMR = .02
SKILLS	Caregiver Grief	.01(.10)	.08(.09)	-.02 to .02	$X^2(4)=14.12$* RMSEA=.17 SRMR = .08
LIKING	Positive Parenting	.13(.12)	.04(.09)	-.02 to .04	$X^2(4)=9.66$† RMSEA=.13 SRMR = .06
ENVIRON	Positive Parenting	.16(.10)	-.001(.09)	-.03 to .03	$X^2(4)=1.66$ RMSEA=.00 SRMR = .03

Table 6, Continued

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
SKILLS	Positive Parenting	.33 (.12)**	.23 (.09)**	.02 to .17	$X^2(4)=2.47$ RMSEA=.00 SRMR = .02

p<.10 †, p<.05 *, p<.01 **, p<.001***, p <.0001****

Table 7

Standardized path coefficients (standard errors) and model fit statistics for fully-longitudinal mediational models with responsiveness index scores as mediators, accounting for clustering of participants within treatment groups.

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
SKILLS	Child Internalizing	-.04(.13)	.07(.09)	-.03 to .02	$X^2(0)=0$ *RMSEA*=0 *SRMR*=0
ENVIRON	Child Internalizing	.13(.10)	.17(.11)	-.02 to .09	0
LIKING	Child Internalizing	.11(.12)	.06(.05)	-.01 to .03	0
HW COMPLE.	Child Internalizing	.11(.09)	.11(.08)	-.01 to .05	
SKILLS	Child Externalizing	-.29(.12)*	-.09(.10)	-.03 to .10	0
ENVIRON	Child Externalizing	.02(.12)	.09(.08)	-.02 to .03	0
LIKING	Child Externalizing	-.001(.08)	-.09(.11)	-.02 to .02	0
HW COMPLE.	Child Externalizing	-.06(.09)	.13(.12)	-.04 to .02	0
SKILLS	Total Child Behavior Problems	-.17(.11) †	.01(.10)	-.04 to .03	0
ENVIRON	Total Child Behavior Problems	.09(.12)	.15(.07)*	-.02 to .06	0
LIKING	Total Child Behavior Problems	.05(.10)	.02(.08)	-.01 to .01	0
HW COMPLE.	Total Child Behavior Problems	.03(.08)	.12(.10)	-.02 to .03	0
SKILLS	Caregiver Depression	-.18(.11)	-.04(.12)	-.04 to .06	0
ENVIRON	Caregiver Depression	-.18(.14)	-.17(.13)	-.02 to .11	0

Table 7, Continued

Mediator (Latent)	IV/DV	*a* path	*b* path	Mediated effect CI 95%	Model fit
LIKING	Caregiver Depression	-.04(.12)	.01(.11)	-.01 to .01	0
HW COMPLE.	Caregiver Depression	-.03(.11)	.20(.12) †	-.06 to .04	0
SKILLS	Caregiver Grief	.01(.13)	.03(.09)	-.01 to .01	0
ENVIRON	Caregiver Grief	-.03(.12)	-.12(.08)	-.03 to .04	0
LIKING	Caregiver Grief	-.002(.16)	-.11(.07)	-.04 to .04	0
HW COMPLE.	Caregiver Grief	.02(.04)	-.01(.18)	-.01 to .01	0
SKILLS	Positive Parenting	.27(.12)*	.32(.07)***	.01 to .18	0
ENVIRON	Positive Parenting	.15(.08)*	.08(.11)	-.02 to .05	0
LIKING	Positive Parenting	.12(.06)*	.13(.18)	-.03 to .07	0
HW COMPLE.	Positive Parenting	.16(.05)**	.01(.15)	-.05 to .05	0

p<.10 †, p<.05 *, p<.01 **, p<.001***, p <.0001****
HW COMPLE. = Homework Completion variable (percentage)

Figure 1. *Original proposed theoretical model: Subjective and behavioral responsiveness as a mediator from family variables at baseline to 11-months post-intervention.*

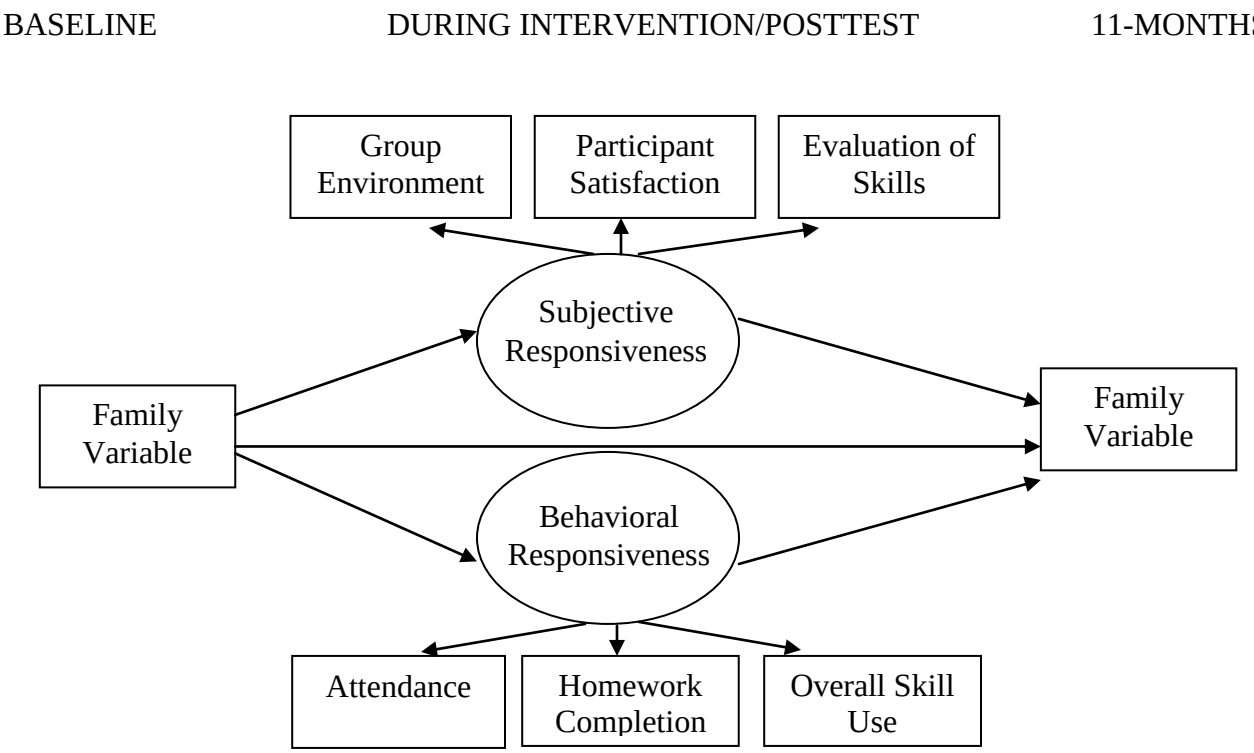


Figure 2. *Standardized Loadings and Residual Variances for 3-Factor Confirmatory Factor Analysis of Implementation Variables.*

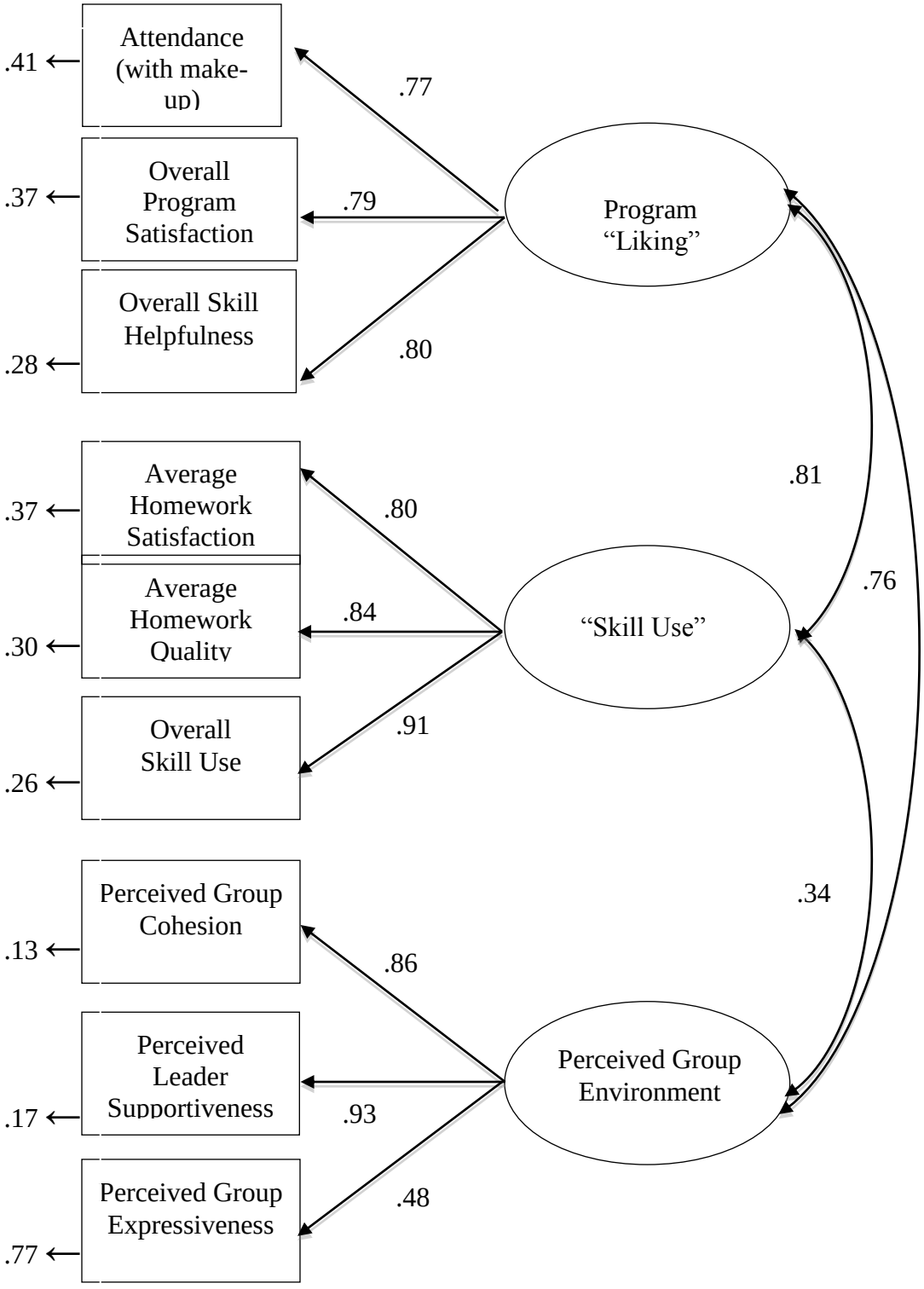


Figure 3. *Theoretical meditational model: Implementation latent variable mediating between family variable at Time 1 and family variable at Time 3.*

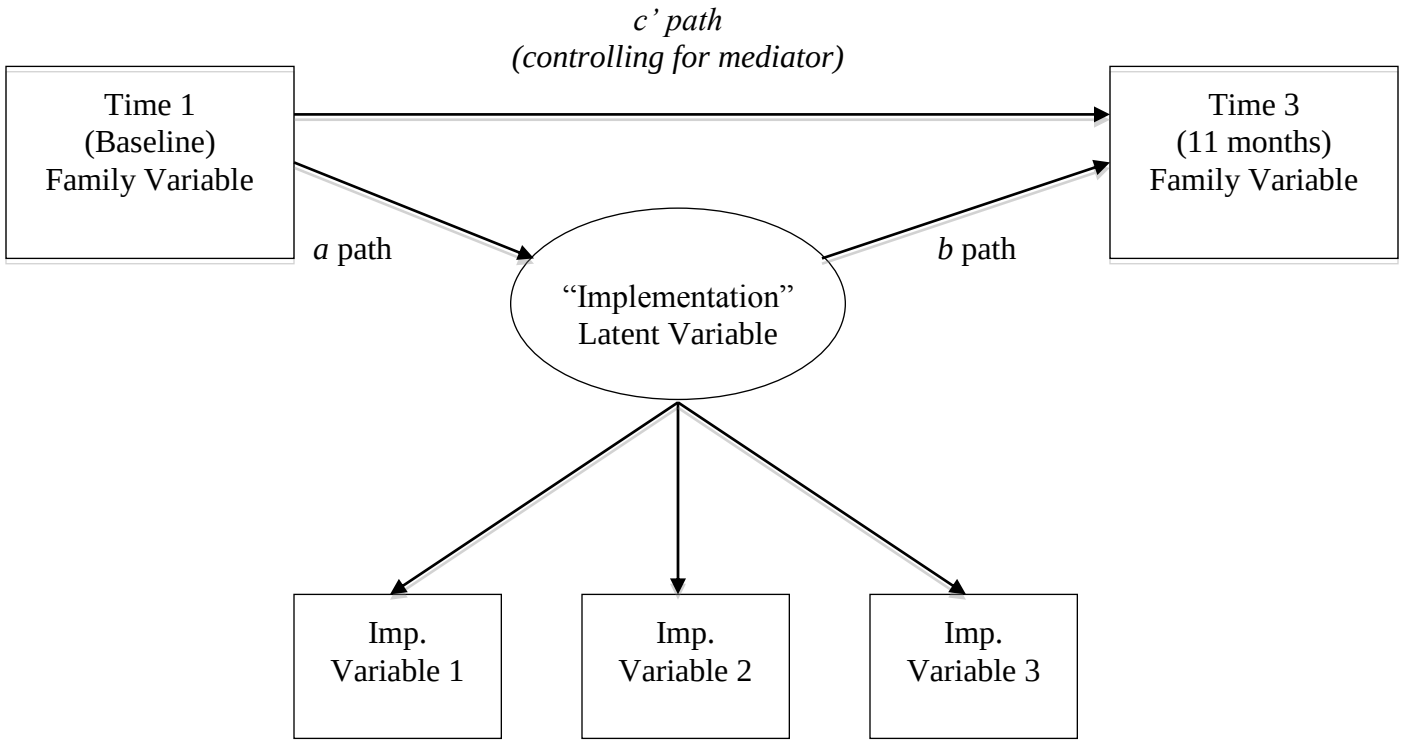
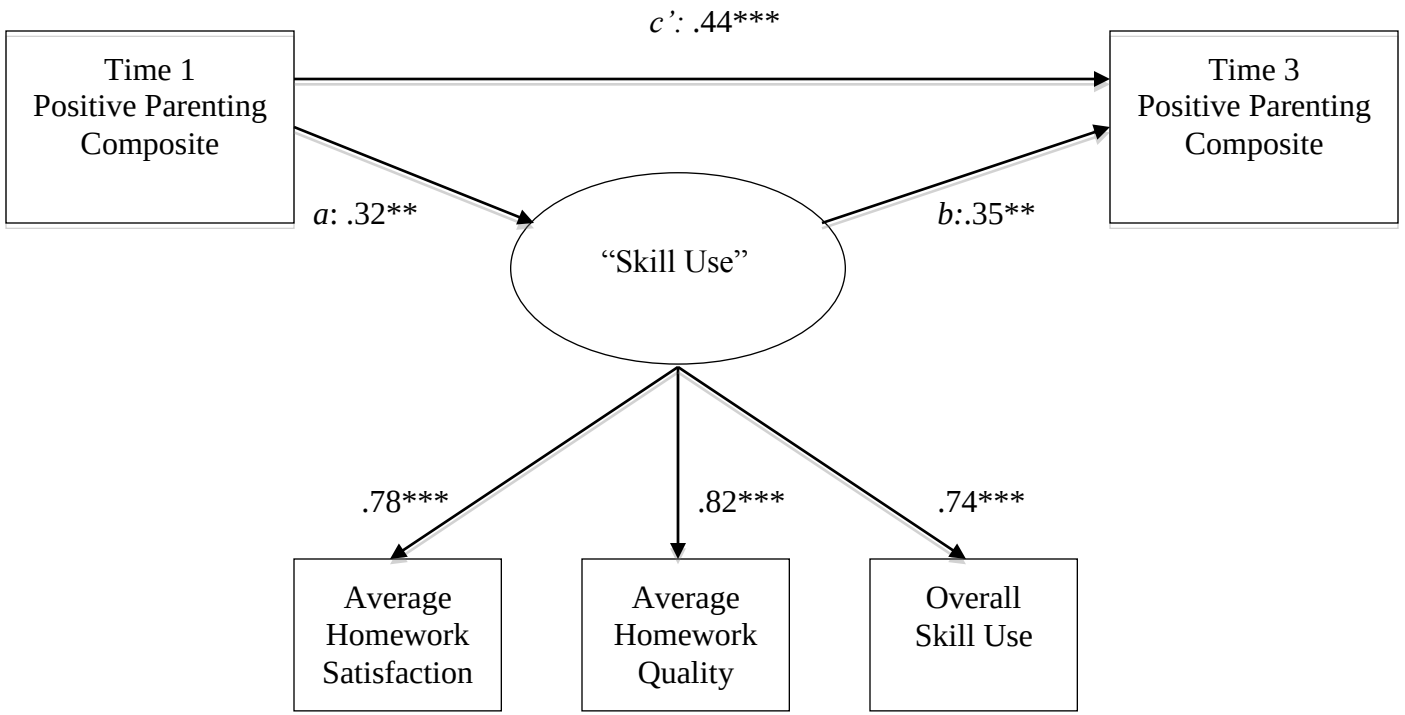


Figure 4. *Skill Use Mediating Between Time 1 Positive Parenting and Time 3 Positive Parenting.*



APPENDIX A

PARTICIPANT SATISFACTION SURVEY

Participant Satisfaction Survey

	Not at all Helpful		Somewhat Helpful		Very Helpful
1. How helpful has the program been for your family?	1	2	3	4	5
2. How helpful has the program been for you?	1	2	3	4	5
3. How helpful do you think what you learned in the program will be for you in the future?	1	2	3	4	5
4. How helpful do you think that this program would be for other bereaved families?	1	2	3	4	5

5. Overall, how would you rate the program?
   1 = Program is terrible
   2 = Program is pretty bad
   3 = Program is fair
   4 = Program is pretty good
   5 = Program is terrific

APPENDIX B

PARTICIPANT RATING OF OVERALL SKILL USE AND SKILL EVALUATION

Participant Rating of Overall Skill Use and Skill Evaluation

PROGRAM SKILL	HOW OFTEN DID YOU USE IT? Not at all 1	2	Sometimes 3	4	A lot 5	HOW HELPFUL IS THIS SKILL? Not at all Helpful 1	2	Somewhat Helpful 3	4	Very Helpful 5
Family Fun Time	1	2	3	4	5	1	2	3	4	5
Spending One-on-One time with Children	1	2	3	4	5	1	2	3	4	5
Catch ‘em Being Good	1	2	3	4	5	1	2	3	4	5
The Four Talk To Me’s	1	2	3	4	5	1	2	3	4	5
Think Before Responding	1	2	3	4	5	1	2	3	4	5
Postponing Listening When I’m Unable to Use Four Talk To Me’s	1	2	3	4	5	1	2	3	4	5
Summary Responses	1	2	3	4	5	1	2	3	4	5
Feeling Responses	1	2	3	4	5	1	2	3	4	5
Guiding Kids’ Problem Solving	1	2	3	4	5	1	2	3	4	5
Responding to I Messages for Sharing	1	2	3	4	5	1	2	3	4	5
Responding to I Messages for Problem Solving	1	2	3	4	5	1	2	3	4	5
Challenging Negative Thoughts	1	2	3	4	5	1	2	3	4	5
Taking Care of Yourself	1	2	3	4	5	1	2	3	4	5

Catch Yourself Being Good	1	2	3	4	5	1	2	3	4	5
Talk to Your Children about Grief	1	2	3	4	5	1	2	3	4	5
Using the 3 C's if Discipline	1	2	3	4	5	1	2	3	4	5
Adopting Clear & Realistic Expectations for Behavior	1	2	3	4	5	1	2	3	4	5
Using Specific Plans to Change Behaviors	1	2	3	4	5	1	2	3	4	5
Using Reasonable and Enforceable Consequences for Misbehaviors	1	2	3	4	5	1	2	3	4	5
Communicating Expectations & Consequences Clearly to Kids	1	2	3	4	5	1	2	3	4	5
How to use Consequences Consistently and Calmly	1	2	3	4	5	1	2	3	4	5
Using Meaningful Positive Consequences	1	2	3	4	5	1	2	3	4	5
Using Anger Management When Upset by My Kids	1	2	3	4	5	1	2	3	4	5
Supporting Children's Coping Skills	1	2	3	4	5	1	2	3	4	5
Using Guidelines Offered to Help Your Kids Cope with Stressful Events	1	2	3	4	5	1	2	3	4	5
Establishing Priorities in Parenting	1	2	3	4	5	1	2	3	4	5
Using Strategies to Keep Up the Skills	1	2	3	4	5	1	2	3	4	5