Canadian Journal of Nursing Research, 1997, Vol. 29, No. 4, 51–72

A Bereavement Intervention for Parents Following the Sudden, Violent Deaths of Their 12–28-Year-Old Children: Description and Applications to Clinical Practice

Shirley A. Murphy

Ce rapport décrit le processus associé à la conduite d'un essai clinique de type longitudinal impliquant un échantillonnage aléatoire de parents affligés par la mort violente d'un enfant âgé entre 12 et 28 ans. Le deuxième objectif de ce rapport est d'appliquer des éléments sélectionnés de l'étude à la pratique clinique.

Les participants à l'étude étaient des parents endeuillés dont les enfants étaient décédés deux à sept mois auparavant, à la suite d'un accident, d'un homicide ou d'un suicide. Les parents ont été identifiés à l'aide du certificat de décès de leur enfant. Des 261 parents recrutés et répartis aléatoirement au sein de situations de contrôle et d'intervention, 171 étaient des mères et 90 étaient des pères. Parmi les conclusions les plus importantes, l'étude démontre qu'il existe des différences au niveau du stress fondamental et de la réaction au traitement, ces différences étant liées à l'appartenance au sexe, et ce indépendamment de toute participation au programme d'intervention. Peu importe les groupes auxquels étaient attitrés les sujets ou la période de mesure, les mères affichaient une détresse mentale plus élevée, des signes de traumatisme plus abondants, une plus grande perte de capacité d'adaptation, un état de santé plus détérioré et un taux de satisfaction conjugale inférieur, en comparaison aux pères participants. Parmi les mères, 85 % s'inscrivaient dans les critères fondamentaux caractérisant un état de détresse mentale (deux à sept mois suivant le décès), 81 % s'inscrivaient dans les mêmes critères immédiatement après le traitement (cinq à dix mois après la mort) et 67 % répondaient aux critères six mois plus tard (onze à seize mois après le décès). En ce qui a trait aux pères, 63 % s'inscrivaient dans les critères fondamentaux caractérisant un état de détresse mentale, 71 % répondaient aux mêmes critères immédiatement après le traitement et 69 % répondaient aux critères six mois plus tard. Les recommandations issues de l'étude comprennent la planification du programme, le recrutement et le maintien de la participation, la sélection et l'orientation des participants, le format du programme et l'évaluation.

This report describes a randomized clinical trial with a longitudinal design involving parents bereaved by the violent deaths of their 12–28-year-old children, with a view to applying selected components of the study to clinical practice. Parents of children who died in the previous two to seven months by accident, homicide, or suicide were identified through the death certificates of the children. Of the 261 parents recruited and randomized to intervention and control conditions, 171 were mothers and 90 were fathers.

Shirley A. Murphy, R.N., Ph.D., F.A.A.N., is Professor, Department of Psychosocial and Community Health, School of Nursing, University of Washington, Seattle.

Among the most important findings were: gender differences in both baseline distress and treatment response; and a very slow rate of reduction in distress over time, irrespective of participation in the intervention. Regardless of study group assignment and measurement period, mothers reported higher mental distress, more evidence of trauma, poorer loss accommodation, poorer physical health, and less marital satisfaction than did fathers. Among mothers, 85% met mental distress caseness criteria at baseline (2 to 7 months post-death), 81% met the criteria immediately following the treatment (5 to 10 months post-death), and 67% met the criteria six months later (11 to 16 months post-death). For fathers, 63% met mental distress caseness criteria at baseline, 71% met the criteria immediately post-treatment, and 69% met criteria six months later. Recommendations concern program planning, recruiting and retaining participants, screening and orientation of participants, program format, and evaluation.

In 1992 alone, over 40,000 Americans between 12 and 28 years of age died by accident, homicide, or suicide. These three causes of violent death account for 80% of all deaths among U.S. youth and young adults, with motor vehicle accidents (MVA) accounting for nearly 50% (U.S. Bureau of the Census, 1995). Statistics for Canadian youth differ markedly: accidents are the fifth leading cause of death, suicides the eighth; however, homicides are apparently categorized under "all other causes" (Health Statistics Division, Canada, 1994).

Parents of young people who die violently are an understudied and "at risk" population. Although studies have *identified* challenges faced by bereaved parents, such as prolonged grief, difficulty eating and sleeping, strain in the marital relationship, and overprotection of other children (Cook, 1983, 1988; Lehman, Wortman, & Williams, 1987; Schwab, 1990), few have included control groups, none have collected extensive amounts of data over time, and none have focused on parents bereaved by the violent deaths of adolescent and young-adult children. The current report has two primary purposes: to describe a randomized clinical trial conducted with parents following the violent deaths of their 12–28-year-old children; and to make recommendations concerning parent-bereavement programs in the community based on the results of the study.

Negative Consequences of a Child's Violent Death for Parents

Pervasiveness of problems. When a young person dies violently, the suddenness and irrevocability of the death, and the disbelief that one's child has died before one, causes the parents intense suffering. Investigators consistently report that the violent death of a child is the most negative life event one can experience, affecting all domains of personal and social functioning, including affect, cognition, health, and legal and economic status (Amick-McMullan, Kilpatrick, Veronen, &

Smith, 1989; Lehman et al., 1987; Rando, 1986; Rynearson & McCreery, 1993; Trolley, 1993; Van Dongen, 1991).

Each of the three modes of death studied can result in mental distress, trauma, delayed loss accommodation, poor physical health, and role strain. In a controlled study (Lehman et al., 1987), parents bereaved by the accidental death of their child reported depression, physical illness, absenteeism from work, inadequate support from their social networks, and divorce rates that were eight times those of matched controls. A recent study with parents following the sudden death of their children found significantly decreased T-suppressor cells, significantly increased T-helper cells, and depression, compared to control parents (Spratt & Denney, 1991).

Persistence of problems. The problems associated with coping with violent death appear to occur immediately and to persist for a long time (Amick-McMullan et al., 1989; Lehman et al., 1987; Lord, 1987; Rinear, 1988). Lehman et al. reported statistically significant differences between bereaved and control-group parents up to seven years after the death in the areas of self-esteem, depression, marital and parental performance, and employment stability. In addition, bereaved parents continued to report feelings of grief, resentment, rage, guilt, blaming others, being stigmatized, and inability to find meaning in the sudden, violent death. Finally, some parents face civil and criminal trials that last several years, resulting in economic hardship and lack of closure (Lehman, Ellard, & Wortman, 1986; Lehman et al., 1987; Trolley, 1993). Thus the evidence overwhelmingly suggests that losses are not resolved but merely accommodated, and that parents' lives are permanently changed. Both the pervasiveness and the persistence of the problems suggest that some parents need supplemental support.

Types and Functions of Social Support During Bereavement

Network-centred support. A central assumption of social-support theory is that close personal relationships, particularly those involving kin, protect individuals against the impact of stressful life events (Cohen & Wills, 1985; Gottlieb, 1988; Thoits, 1986, 1995; Wellman & Wortley, 1990). It has also been proposed that both confidantes and acquaintances are necessary to the bereavement process, to ensure a cadre of non-judgemental listeners should family members and close friends tire of hearing the same story repeated over and over (Pennebaker & O'Heeron, 1984; Perrine, 1993; Wellman & Wortley).

Peer-centred support. Silverman (1980) suggests that mutual-support groups might be a better source of support than confidantes and kin. Mutual support provides a milieu for identification with others who have similar knowledge and experience, for expression of mutual concerns, and for the emotional support that is said to contribute to the processes of loss accommodation (Bahrey, McCallum, & Piper, 1991; Silverman, 1980; Thoits, 1986; Yalom & Vinogradov, 1988). Feedback based on group consensus makes a more powerful impression than suggestions or advice offered by individuals (Gottlieb, 1988). The Compassionate Friends (TCF) is the only known U.S. organization devoted to parent bereavement. However, its bereavement groups meet only once a month, and all parents, regardless of how their child died or the age of the child at the time of death, attend the same meeting. Survivors of Suicide (SOS) and Victims of Violent Crime also convene only monthly.

Thoits (1986) has contributed to our understanding of *how* support works, through her conceptualization of social support as comprising two types of coping assistance: problem-focused and emotion-focused. Problem-focused support consists of direct actions to alter circumstances deemed threatening, or alter the meaning of a situation by offering information or advice that might motivate one to adapt. A problem-focused intervention provides information and training in the coping skills that pertain to specific stressors. Emotion-focused support consists of actions or thoughts to control negative feelings, alter mood, and cause one to feel respected and loved (Thoits, 1986). An emotion-focused intervention creates a safe environment for disclosure and validation of feelings associated with an event and its consequences.

Major Factors Affecting Parental Bereavement Outcomes

Three causal processes linked the children's violent death to the dependent variables and provided a rationale for the design of the bereavement program. These were: the suddenness and violent nature of the death, the age of the deceased at the time of death, and insufficient social support. According to Bloom (1981), causal processes become the intended targets for change.

The experience of sudden, violent death interferes with cognition, perception, and the expression of emotion. Some parents witness the violent death of their child, but parents typically learn of the death from others. The hanging of one's child, or the severely burned or maimed body of one's child, provoke images that are inescapable and that can

lead to great difficulty accommodating the loss (Amick-McMullan et al., 1989; McIntosh, 1993; Rinear, 1988).

Assumptive world theory (Janoff-Bulman & Frieze, 1983) postulates that we generally view the world as benevolent and meaningful and the self as worthy. The sudden, violent death of a child brings about the abrupt disintegration of our inner world, rendering the self helpless and weak in a malevolent, meaningless world. The coping task is to construct a new assumptive world consisting of the personal and relational change needed to prevent breakdown in partner communication, poor coping response, and loss of self-esteem and self-efficacy. This task might be particularly drawn out and difficult because of the tension between emotion and cognition. Denial and numbing represent efforts to avoid dealing with the event, whereas intrusion and re-experiencing represent efforts to confront it. Persistently talking about the event allows survivors to revise it in ways that make it more tolerable and to impose order on experience. Cognitive reframing and assimilation might help to reduce the number of intrusive thoughts and images.

In addition to shattering assumptions about an orderly and predictable world, stigmatizing aspects of the violent death of a child interfere with a parent's mental/emotional status. These stigmatizing aspects include suicide, high-risk behaviours such as speeding, driving while intoxicated, neglecting to use safety devices, and joining gangs. Parents might perceive that they are being blamed for the death, which can lead to disruptions in sleep, thought processes, and sense of well-being (Calhoun, Selby, & Abernathy, 1984; Ness & Pfeffer, 1990).

The youth of the deceased at the time of death makes it difficult to find meaning in the death. Shanfield and Swain (1984) found several significant predictors of poor bereavement in parents, such as the child living at home at the time of the death. Bereaved parents frequently believe they should have prevented the death.

Family life cycle theory (Carter & McGoldrick, 1988) suggests that mid-life parents and their children are at crucial stages in their development. Parents are redefining marital/parenting roles, trying to attain career goals, and, sometimes, caring for aging parents. Youth are defining their identities and struggling to achieve emotional and economic independence. Parents' inability to find meaning early in the bereavement process may lead to mental distress, role strain, poor health, and delayed loss accommodation, in which case both problem-focused and emotion-focused dimensions of support are needed to reduce negative consequences.

Insufficient social support can lead to a sense of alienation. Parents' social networks do not always provide adequate support during the lengthy bereavement period (Jacobsen, 1986; Lehman et al., 1987; Piper, McCallum, & Azim, 1992). Network links, including colleagues and superiors, might have unrealistic expectations of the bereaved. For example, Janoff-Bulman and Frieze (1983) and Wortman and Lehman (1983) posit that one's initial reaction to another's plight is to recognize one's own vulnerability — "this could happen to me." The personalizing of another's situation, particularly when one perceives it as within the realm of possibility for oneself, is apparently so compelling that it can engender feelings of insecurity, vulnerability, helplessness, and anxiety. To relieve these feelings, one might blame or avoid the victim, or discount the event. Because social support is an interactive process, the result might be unintentional negative effects on the bereaved, such as being avoided or being given hurtful messages. Thus some parents might require supplemental support.

In summary, causal processes linking the violent death of a child and potential negative outcomes were the basis of a hypothesis tested as part of the first aim of the study: to determine the immediate and short-term effects of a two-dimensional preventive intervention provided two to seven months post-death. The second aim of the study was to identify factors associated with a lessening of mental distress, progressive resolution of loss, decreasing number of disruptions in health-maintenance behaviours, and improved role functioning. The third aim of the study was to determine the value of the program from the viewpoint of the participants, by assessing their responses.

Method

Design

A multi-site randomized cohort study was conducted over a three-year period. Post-treatment follow-up took place immediately following, six months following, and 18 months following the program.

Participants and Procedures

Inclusion criteria. Criteria for inclusion in the study were as follows: The deceased child had to have died, unmarried, between the ages of 12 and 28, by accident, homicide, or suicide within 72 hours of the initial traumatic insult and two to seven months preceding the intervention. The parent (biological, step- or adoptive) of the deceased child

had to agree to be randomized to either the experimental or the control group and had to reside within a three-county area, in order to attend weekly sessions for the purpose of data collection.

Identification and recruitment strategies. Death certificates on file at Medical Examiner's offices in two northwestern U.S. states were used to identify parents of the deceased youth. Approval of recruitment procedures was obtained from the University of Washington Human Subjects Division and the Oregon State Health Division Institutional Review Board. A total of 571 death records that met the inclusion criteria were reviewed over a period of two and a half years. Of these, 329 (57.6%) included sufficient information to allow contact with potential subjects. Of the 329 families contacted, 204 families (a total of 261 persons, either single or part of a couple) agreed to participate, for a response rate of 62%. Major reasons for parents' refusal to participate were that the bereavement program would conflict with their work schedule (26%) and that they did not need help (18%). However, in most instances of refusal no explanation could be obtained.

Parents were contacted by letter, which stated that a follow-up phone call would be made if the accompanying form was not returned, in the stamped envelope provided, within one week. Because the letter was a vital document — it was the only available means of contacting potential parents — parents from a previous pilot study were asked to review it and a communications expert was also consulted. Prior to baseline data collection, 153 parents (58.6%) were randomly assigned to the intervention group (101 mothers and 52 fathers) and 108 parents (41.4%) were assigned to the control group (70 mothers and 38 fathers). Married and partnered parents were assigned to the same treatment condition. Randomization was based on accrual, with assignment first to intervention, then to control, until all eligible parents in each cohort were assigned. The program was begun within two weeks after recruitment.

Size, Representativeness, and Characteristics of Sample

At baseline, data were provided by 261 parents (171 mothers, 90 fathers), ranging in age from 32 to 61 (mean = 45 years, *s.d.* = 6.01). The sample was 86% Caucasian, educated (mean years of schooling was 13.8), 65.4% employed, and 70.4% in a partnered relationship. More fathers (85.4%) were living with a spouse or partner than mothers (62.6%) ($\chi^2 = 14.6$, $p < .001$). Nearly 80% of the parents professed religious affiliation (41% Protestant). The most common cause

of the child's death was accident (57.8%), followed by suicide (23.6%), homicide (9.7%), and other violent causes not classified by the Medical Examiner (8.9%). Time elapsed since death ranged from six weeks (46 days) to seven months (229 days), with a mean of 130 days (*s.d.* = 42.0). The average age of the deceased child was 20.1 years; 60% were male.

Retention procedures. Several strategies, consistent across both intervention and control groups, were initiated to retain the participants. (1) A $25 stipend was issued within a week following each data-collection session. Parents were given the option of having the stipend sent to them or to a charity or fund of their choice. (2) A newsletter was mailed between data-collection sessions to maintain participants' interest in the study and to keep mailing addresses current. (3) A tracking system was used to keep the research team informed of the precise status of each subject (Johnson, Murphy, & Dimond, 1995). Notations on tracking forms recorded when the letter was mailed; when notices of data collection were sent; when each subject's data were received, coded, and sent to data entry; and when stipends were mailed. (4) Parents were telephoned to determine whether they had received the letter and whether they would be attending data-collection sessions as scheduled.

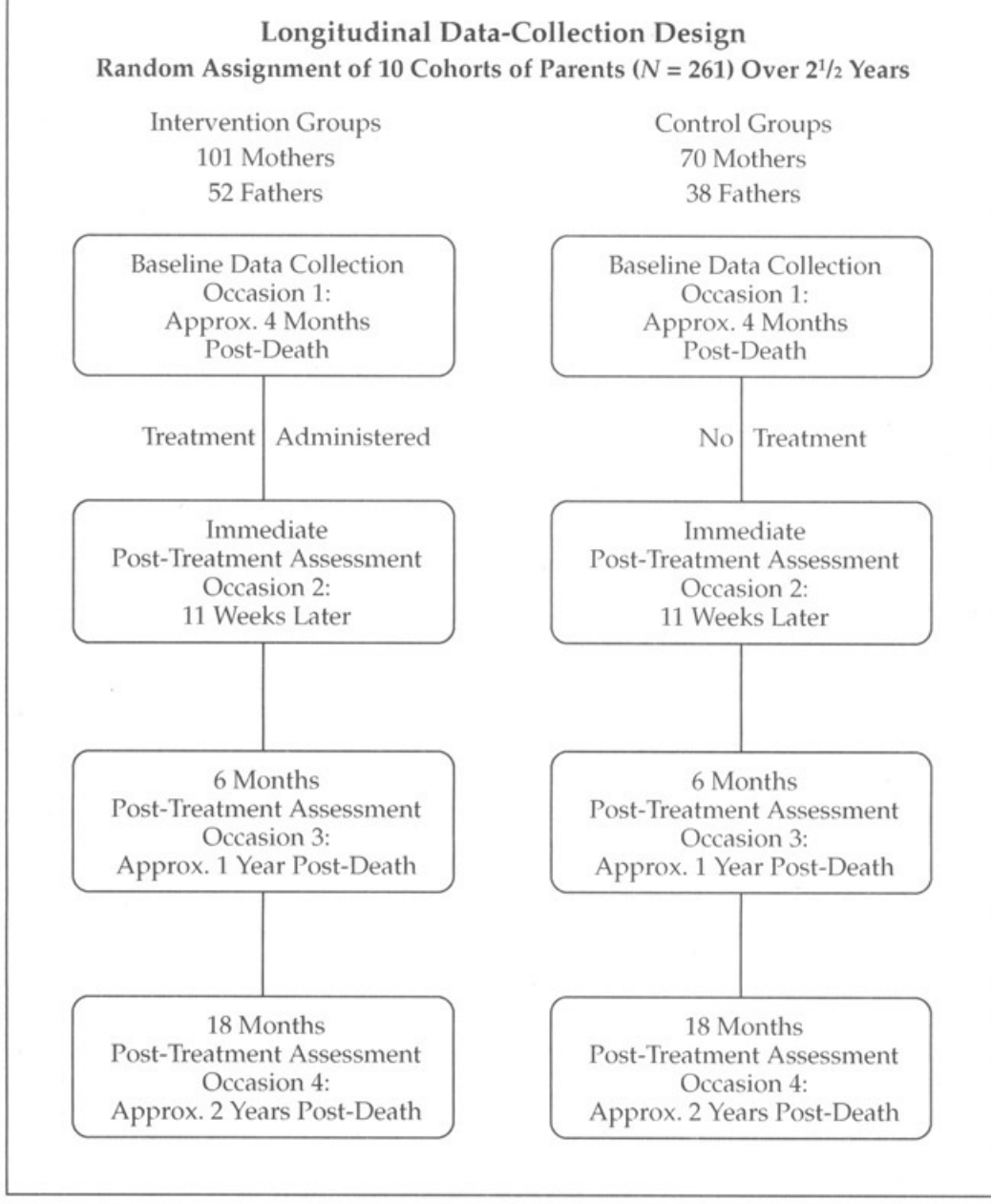
Description of Intervention

The bereavement program was designed to reduce the negative consequences of violent death by targeting five outcomes: mental distress, symptoms of post-traumatic stress disorder (PTSD), loss accommodation (grief), physical health, and marital role strain. The two-dimensional preventive intervention, the manipulated independent variable, provided a broad-spectrum approach to managing the death of a child and related consequences.

Site and structure. Neutral sites such as conference rooms in colleges or office buildings were selected for the sessions. The first and last weekly session of each 12-week sequence was reserved for, respectively, orientation and data collection. Components of the program were implemented by men/women pairs of group leaders — psychologists, nurses, or family therapists — trained by the author. A minimum of five parents is considered a critical mass necessary to facilitate discussion, whereas more than 10 is considered too many to allow for active participation (Corey & Corey, 1992; Yalom, 1985).

Enrolment and orientation. Potential subjects were recruited three times a year by cohort until 10 cohorts had been enrolled. Figure 1 shows the progression of enrolment over time. Each cohort consisted of one to four intervention groups and two control groups across the two study sites. Orientation protocols improve attendance and enhance participation (Yalom, 1985).

Figure 1 *Parent Bereavement Stress and Nursing Intervention*



Content. Problem-focused support, which was offered the first hour of each session in the 10-week program, provided a broad range of information and survival skills designed to reduce the negative consequences associated with bereavement following violent death. Topics supported by a pilot study were: Emotional Responses, Cognitive Responses, Health Responses, Parental Role Loss, Legal Concerns, Marital or Significant Other Relationships, Family Relationships, Feelings Toward Others, and Expectations for the Future. Skills specific to each topic were integrated into the sessions. Some skills were demonstrated and practised, while some were suggested, depending on time constraints. Parents were provided three-ring binders containing objectives and outline of content for each information- and skill-building session. They were encouraged to make brief notes during the presentations.

Emotion-focused support, which was offered in the second hour of each session, provided a milieu for normalizing experiences, helped parents to obtain feedback in reframing aspects of the death and its consequences, and promoted the sharing of emotional support.

Program fidelity. A research monitor tape-recorded all sessions to assess consistency across cohorts and sites, recorded attendance, made notes pertaining to parent interactions, administered weekly evaluations, and participated in staff debriefings at the close of each session. These data were used to evaluate the integrity (fidelity) of the program.

Data Collection and Variable Measurement

Data were collected in group settings from a battery of questionnaires that were administered pre-intervention and immediately following, six months following, and 18 months following the intervention. Only the five-outcome variable measurement is described here.

Mental distress was measured using the 53-item Brief Symptom Inventory (BSI) (Derogatis, 1992). The BSI yields an overall measure of mental distress, the Global Severity Index (GSI), and nine subscale indices of distress. Sample items are "difficulty concentrating" and "feeling hopeless about the future." Symptoms are rated on a five-point scale (0 = not at all, 4 = extremely) as experienced in the preceding 14 days. The GSI range of scores is 0–212. Coefficient alpha for the GSI for the current study is .97 (N = 283).

Symptoms of PTSD were measured using the Traumatic Experiences Scale (TES), an 18-item self-report measure based on DSM

III-R criteria (American Psychiatric Association, 1986) and developed by the author for the current study. Items include "I make deliberate efforts not to think about how my child died" and "I have trouble falling/staying asleep." TES items are rated on a six-point scale (0 = never, 5 = almost always) as experienced in the preceding seven days. A total score and three subscale scores (re-experiencing, avoidance, and hyperarousal) can be derived. The range of scores for the total TES is 0–90. Coefficient alpha for the TES was .78 (N = 287). Concurrent validity was assessed by correlating the re-experiencing subscale scores with an item on the Parent Bereavement Survey (PBS) that measures the frequency of intrusive thoughts (lower scores suggest greater intrusion). Correlations were in the direction predicted and ranged from r = -.30 to -.40, p<.001.

Loss accommodation was measured using the 25-item Grief Experiences Scale (GES) that was part of the 78-item PBS developed by the author for the current study. Items were developed as a result of focus-group input from parents whose children had died violently. Items include "I fall apart when I see a child who looks like my son/daughter" and "No one wants to talk about my child's death." The GES is scored on a five-point scale (1 = never true, 5 = almost always true). The range of scores for the GES is 25–100. Lower scores reflect better loss accommodation. Coefficient alpha was .90 (N = 283).

Physical health was measured using items on the Health Status/Health Behaviors Scale (HHB), a 68-item, self-report, health, health behaviours, and health-care utilization questionnaire developed by the author for the current study. One item pertaining to this report is "As of right now, how do you rate your physical health?" (1 = extremely poor, 9 = excellent).

Marital satisfaction was measured using the 10-item satisfaction subscale of the Dyadic Adjustment Scale (DAS) (Spanier, 1976). DAS items include "How often do you and your partner quarrel?" and "Do you ever regret that you married (or lived together)?" (1 = all the time, 6 = never). The range of scores is 10–60. Higher scores signify greater satisfaction. Coefficient alpha for the subscale for the current study was .88 (N = 198).

Pre-treatment variables were gender, marital status, ethnicity, mode of child's death, and other demographic variables such as age, occupation, education, and religious preference. Demographic information was obtained at baseline.

Information-focused and emotion-focused support, the manipulated independent variables, were assessed using the Process Evaluation Form. After each session, parents rated the relevance and timing of content, clarity of presentation, leader support (items developed by the investigator), and Yalom's (1985) nine therapeutic factors shown to facilitate change in members participating in small groups.

Data Analysis

Preliminary analyses. Descriptive statistics were computed for all study variables grouped by gender and intervention and control conditions. Scales were built and reliability was analyzed. Selection bias was assessed by examining the only common data available for both participants and decliners: the deceased child's death certificate. Neither the ethnicity $\chi^2(4, N = 261) = 5.86, p = .21$ nor the cause of death $\chi^2 (3, N = 261) = 1.48, p = .69$ of the deceased child was significantly related to the probability of successful parent recruitment. Retention by gender was comparable for both intervention and control groups, and attrition did not significantly affect the representativeness of the sample.

Parents' outcomes. Baseline group means for the demographic and outcome variables were tested for differences between treatment and control conditions. There were no significant differences except for income, which demonstrated that the randomization procedure was successful. *T*-tests and analysis of covariance controlling for baseline values were used to test whether the mean of the outcome variables differed between intervention scores immediately after the treatment was administered and six months later. Plots of change scores versus baseline values were used to explore whether treatment effects differed by baseline values. Since it appeared that some interactions might be present, subjects were divided into terciles by baseline values of distress of each outcome variable. Within each tercile, the mean treatment effect was computed as the mean change score (follow-up minus baseline) in the intervention group minus the mean change score in the control group.

Parents' evaluation of the program. Data were obtained from each parent following each session. The resulting 1,186 "person/session" responses were calculated by multiplying the number of sessions attended by the number of persons attending and then summing the products obtained. Descriptive statistics were used to evaluate both the problem-focused and emotion-focused dimensions of the program.

Results

Program Fidelity

Attendance was high: 94% of parents attended six to 10 sessions. Analysis of tape-recorded data showed both that the problem-focused support was delivered according to protocols and that there was congruence between the concerns raised by parents in the emotion-focused support dimension and the content of the information sessions.

Parents' Outcomes (Aim 1)

Pretreatment (baseline) status. Upon entering the study and prior to treatment (four months post-death, on average), over 80% of the mothers and over 60% of the fathers scored three to four times higher on measures of mental distress than the normative group on which the BSI was tested (Derogatis, 1992). However, a significant minority of parents did not rate themselves as highly distressed, which made it difficult to detect which subjects benefited from the program.

Effects of treatment. The results of hypothesis testing showed that mothers reported significantly higher scores (i.e., poorer outcomes) than fathers and that for both genders reduction in distress over time proceeded at a very slow rate. Mothers who started out with high levels of distress appeared to benefit more from the intervention than mothers who started out with lower levels of distress. Interactions were statistically significant, both immediately following treatment and six months later, for three of the five outcome variable comparisons: mental distress, PTSD, and grief. There were no apparent benefits for mothers regarding physical health or marital role strain. Fathers, regardless of ranking of distress at baseline, did not appear to benefit from the intervention (Murphy et al., in press a).

Results of Within-Group Dependent Variable Analysis (Aim 2)

A second goal of the project was to identify factors associated with fewer negative consequences. Findings that have implications for parent bereavement programs will now be summarized.

Trauma. Among mothers, the prevalence of PTSD was 39% at baseline and 32% two years post-death (18 months post-intervention). Among fathers, diagnostic criteria for PTSD were met by 6% at baseline, but the rate had risen to 16% two years later. Less than 1% of the normal population report PTSD symptoms (Helzer, Robins, & McEvoy,

1987). Parents who met diagnostic criteria for PTSD at baseline differed significantly on all outcome variables when compared to parents who did not meet the criteria (Murphy et al., in review).

Physical health, health-care utilization, and health-protective behaviours. As reported above, status of physical health did not appear to be affected by the intervention. However, when the health-status item "As of right now, how do you rate your health?" (scored 1 to 9) was dichotomized as "poor" (scored 4 or lower) or "good-to-excellent" (scored 5 or higher), 20% reported poor health, compared to 16% for a national sample of comparable age (Thomas, Plo, & Sehnert, 1994). Both mothers and fathers in poor health were at significantly higher risk for mental distress, trauma, grief, and repressive coping than those in good health. A majority of both mothers and fathers reported at least one physician visit per month during the first year of the bereavement period. Seven health-protective behaviours (balanced diet, not smoking, low alcohol consumption, weekly exercise and leisure activity, low repressive coping, high active coping) practised by the majority of both mothers and fathers were significantly associated with fewer stress-related illnesses, fewer days absent from work, and higher productivity at work (Murphy et al., in press b).

Causes of death. When the five major outcome variables were examined by grouping parents by cause of child's death, many significant findings emerged. Significantly, more parents whose child died by homicide were non-Caucasian ($p = .003$). These parents also reported significantly higher levels of mental distress four and 12 months after the death than parents whose children died by other causes. In addition, they reported the most physician visits and the highest rates of prescription drug use.

Parents whose children died as the result of an accident were more likely to be unmarried than parents whose children died by other causes ($p = .02$), and they reported less mental distress, trauma, and grief than parents whose children were murdered.

Parents whose children died by suicide perceived their children as significantly unhappier and less well-adjusted than parents in the other two groups. They also reported perceiving less harmony and more unresolved conflict in the parent/child relationship than parents in the other two groups. These parents also perceived themselves as experiencing more changes in religious practices (i.e., less private prayer, family prayer, and church attendance). Their rates of mental distress, trauma, and grief were similar to those of parents whose child died by accident.

Parents' Evaluation of Program (Aim 3)

The program was strongly endorsed by parents. The most highly rated problem-focused dimensions were readiness — that is, whether an issue had been resolved or whether the respondent was ready to deal with the issue raised — and relevance of content (rated 0 = not relevant, 5 = very relevant, and by identifying most and least relevant topics). The emotion-focused dimensions rated most highly were cohesion ("helped me feel I belonged") and universality ("helped me feel I'm not alone"). Person/session ratings of the usefulness of each component of the program showed that 63% of the parents rated "both parts equally useful." The open-ended comment section was completed by 75% of the mothers and 65% of the fathers. These data were analyzed by content analysis. The following comments are representative: "thank you, I need this badly"; "the session tonight helped validate my feelings, actions, and reactions"; "I learned something important tonight about letting others help me"; "talking helps, listening helps even more." Less than 1% of the comments were negative or suggested how things might be improved (Murphy et al., 1996).

Discussion

Transferability of Clinical Trial to Clinical Practice

An advantage of a large, federally funded study such as the current one is that it can be conducted over a period of time long enough to permit evaluation of both the structure and the effects of the program. Overall, 23 intervention groups of five to 10 parents were observed. The benefits of holding repeated sessions include the opportunity to measure seasonal effects and the effects of major holidays that could confound results, observe therapist characteristics, and note the effects of different group themes that evolve as a result of differing group constellations.

A disadvantage of a clinical trial is its inflexibility: Each group must receive identical treatment. Because time elapsed since death had to be kept constant, it was impossible to "wait-list" parents because of some potentially undesirable effects of randomization. For example, of the 23 groups, two included only one father, four included only one parent whose child had died by suicide, and four included only one parent whose child had died by homicide. No group included more than one non-Caucasian parent or couple. A group-by-group analysis of parent ratings to determine the effects of these factors is being undertaken.

Validity and reliability of findings. A major concern of clinicians who strive to apply theory and empirically based findings is the extent to which the findings are valid and reliable. The effects of sample bias, the effects of attrition, and potential baseline differences between intervention and control groups were all insignificant. The results of program integrity (fidelity) obtained through feedback and the tape-recordings of research monitors demonstrated that the program was implemented consistently across sites and over time.

Recruiting and retaining participants. Although research in this area is limited, it has been suggested that gender differences and self-selection (towards more distress rather than less) occur in participation in mutual-support groups (Levy & Derby, 1992). Widows reporting high levels of distress participate in mutual-support groups at a higher rate than widowers who reported less distress (Stroebe & Stroebe, 1989–90). Parents who join the TCF organization may also be unique — primarily Caucasian, married, educated, and employed full-time (Hogan, Morse, & Tason, 1996). Similar characteristics have been reported for participation in Canadian support groups (Gottlieb & Peters, 1991). Little is known about a broader spectrum of bereaved parents — those who do not participate in support groups, non-Caucasian parents of murdered youth, and parents in the low- to lower-middle-class socioeconomic class.

Format. Parents welcomed the opportunity to meet with the principal investigator for the orientation. Parents expressed satisfaction with the problem-focused and emotion-focused dimensions of the program: 63% said, "Both parts were equally useful." However, since both dimensions were offered to all parents randomized to the intervention it was impossible to measure the separate effects of either, and thus to know if one dimension was more effective than the other in reducing distress. Having a new topic for information- and skill-building at each group meeting apparently created the perception that progress was being made. Parents said, "We would never get to all these topics if the format was discussion-only." Questions parents asked throughout the program indicated a need for both repetition and clarity in the written materials. This finding is consistent with parents' reports of difficulty concentrating, problem-solving, and maintaining productivity at work.

Differences were found according to marital status and gender. Single parents did not rate the Managing the Marital Relationship session highly. In general, the ratings of fathers were somewhat lower than those of mothers.

The high rates of participation among almost all parents in group after group in the emotion-focused support sessions suggest they needed a forum for discussion. Data are currently being analyzed to determine the extent to which parents in the intervention program sought out each other for support and friendship after the program ended. Cause of death did not appear to be a barrier in joint programming; the suddenness of the death and similarity in age of both the parents and their deceased children appeared to contribute to group cohesiveness.

Group effects and individual change. Yalom's (1975, 1985) Therapeutic Group Factors were measured each week. Of the nine factors, five (altruism, catharsis, cohesion, instillation of hope, and universality) were rated significantly higher by the mothers than the fathers. Analyses are yet to be conducted to determine how each group constellation (i.e., all married couples, all mothers, a mix of causes of death, etc.) rated the extent to which Yalom's "curative" factors were present in group sessions.

The results clearly demonstrate that reduction of distress, as measured using the GSI (Derogatis, 1992), occurred at a very slow rate. This finding may have implications for the "strength" of a treatment (Yeaton & Sechrest, 1981). The current program was convened once a week instead of once a month and was more comprehensive (one hour of problem-focused support followed by one hour of emotion-focused support) than those typically offered by peer-support bereavement groups in the community. However, additional sessions, as well as booster sessions, may be needed to reinforce some concepts, especially among the most highly distressed parents. After the program had been implemented, Stewart and Archbold (1992) published their suggestion that individual difference variables measured as outcomes are not sensitive to change and therefore are not to be recommended. These authors suggested identifying elements of the intervention itself as outcome variables to be measured. Therefore, a component was added to the six-month post-intervention follow-up to begin to assess effects directly. For example, it was learned that couples who attended sessions together reported significantly more communication about each other's bereavement responses compared to parents who attended alone ($p<.0001$). These results can guide future studies.

Differences according to gender. One of the most clinically significant findings of the study was the definitive differences according to gender, both in levels of distress reported and in treatment response. These findings can be attributed in part to gender socialization (Cook,

1988). It may be that the orientation program and some sessions need to include breakout sessions by gender.

Trauma. When the study was approved for funding in 1990, there was little in the literature to suggest that bereaved parents were at risk for PTSD. Therefore the program did not place much emphasis on reducing the effects of PTSD. Yet symptoms of trauma, especially re-experiencing, were found to be troubling for a significant proportion of the mothers. The investigators were also surprised by the increase over time in trauma symptoms among fathers. Future programs might attend more aggressively to this important clinical phenomenon.

Health-protective behaviours. The items pertaining to diet, exercise, leisure activities, smoking, use of alcohol, and use of prescription and over-the-counter drugs are very informative and are applicable to other programs. The current program featured only one session on health. However, the finding that engaging in two or more health-protective behaviours per week was associated with fewer stress-related illnesses, fewer days absent from work, and a perception of higher productivity at work suggests that lifestyle is an important factor in bereavement.

Cause of death. Parents whose children were murdered reported higher rates of mental distress than parents whose children died by accident or suicide. The unique differences among parents when data were analyzed according to cause of death suggests that programs should be individualized to meet specific needs.

Finally, the results of the longitudinal follow-up have implications for clinicians whose work does not involve bereavement programming. For example, the very slow rates of stress reduction have implications for clinicians in both family and specialty practice. The deterioration of fathers' health is noteworthy, as are the high rates of prescriptive medication taken by bereaved mothers.

In summary, the following recommendations apply to the early bereavement stage for parents whose adolescent and young-adult children have died violently: (1) Plan the program with explicit goals in mind. (2) Screen applicants to ensure a balanced group constellation. For example, place at least two fathers in a group composed of mothers. If all causes of death are represented in a single group, ensure that at least two different families are represented in each. (3) Provide orientation. Participants are active consumers of care and need to know what to expect. Moreover, parents want to meet the investigators. (4) Provide both problem-focused and emotion-focused support. Parents in the

current study were extremely positive about this format. (5) Provide written materials. Parents are anxious and exhausted and have trouble concentrating. (6) Individualize where necessary. The investigators were surprised by the differences they found among just five to 10 people. For some parents, a crisis service or phone service may be adequate; other parents may require extensive information and support. Baseline assessment data will help clinicians to meet the unique needs of parents. (7) Have participants evaluate each session. Parents like being asked for their opinions. A well-designed form can be administered quickly to gather essential information about the functioning of the program.

Conclusion

The results of a large randomized clinical trial with bereaved parents provide numerous applications for both bereavement programs and general and specialty clinical practice. Among the most important findings are: differences according to gender in both baseline distress and treatment response; a very slow rate of reduction in distress over time, irrespective of participation in an intervention; and a lack of congruence between parents' reports of satisfaction with the program and their outcomes measured as individual difference variables. Nonetheless many valuable clinical applications are possible, provided they include careful planning, recruitment, screening, and orientation, both problem-focused and emotion-focused support, and collection of evaluation data.

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Acknowledgements

This study was supported by the National Institute for Nursing Research, National Institutes of Health, # R01 NR01926.

Correspondence should be addressed to Shirley A. Murphy, Box 357263, University of Washington, Seattle, WA 98195–7263. E-mail: samurphy@u.washington.edu