Perinatal Loss: An Exposure Based Approach to Alleviating Feelings of Grief in Bereaved Parents

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Western Michigan University

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PERINATAL LOSS: AN EXPOSURE BASED APPROACH TO ALLEVIATING FEELINGS OF GRIEF IN BEREAVED PARENTS

by

Michele Lee Rosa

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Philosophy Department of Psychology

Western Michigan University Kalamazoo, Michigan April 1996
PERINATAL LOSS: AN EXPOSURE BASED APPROACH TO ALLEVIATING FEELINGS OF GRIEF IN BEREAVED PARENTS

Michele Lee Rosa, Ph.D.
Western Michigan University, 1996

The efficacy of exposing bereaved parents to stimuli associated with their deceased child as a means of alleviating their grief reaction was explored. Three parents who had suffered a perinatal loss participated. Pre, post, and follow-up measures of depression, hopelessness, anxiety, marital functioning, daily stress, psychopathology, bereavement and grief were gathered.

Results showed clinically significant improvement for two of the three subjects on measures of depression and psychopathology. All subjects showed improved marital functioning. Negative change was seen on a measure of hopelessness for two of the three subjects. The treatment effects for symptoms of stress, anxiety, bereavement and grief were mixed. Subjective reports from the parents provided support for the utility of the intervention. Implications for medical and mental health care providers involved in the care of parents following a perinatal loss are discussed.
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DEDICATION

In loving memory of

Anthony J. Giacomo
(1902-1996)
ACKNOWLEDGEMENTS

I would like to thank the many who contributed to the completion of this dissertation. First, to the members of my committee, Drs. M. Michele Burnette, Galen Alessi, Patricia Meinhold, and Kevin Armstrong. I extend my sincere appreciation for their guidance and support.

Second, to my immediate family members who continuously provided both emotional and monetary support, as well as encouragement: my father, Charles M. Rosa; my mother, Dolores A. Rosa (Giacomo); and my younger sister, Gina M. Rosa. I thank my entire extended family for their willingness to share in my educational experiences.

Third, to the faculty members at the Children’s Hospital of Michigan (especially, Drs. Marcia Gilroy, Arthur Robin and Joseph Fischoff), The University of Oklahoma Health Sciences Center (especially, Dr. C. Eugene Walker) and The Children’s Hospital of Oklahoma (especially, Drs. Heather Huszti and Ruphert Nitschke), I thank you for your encouragement and permission to collect dissertation data while also completing my internship and fellowship requirements.

Finally, I thank my high school English teacher, Ms. Maureen Carney (Sauber). Because of her dedication to teaching and her insistence that students write properly, with organization and with style, I have had to endure minimal criticism of my writing abilities.

Michele Lee Rosa

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CHAPTER I

INTRODUCTION

Numerous scientists have written about attachment, loss and grief processes (Bowlby, 1977, 1980; Kubler-Ross, 1970; Lindeman, 1944). More specific, the literature has been growing with respect to the psychological adjustment of individuals experiencing loss and grief subsequent to fetal and neonatal demise. As defined by the National Center for Health Statistics (1993), a fetal death is the death of a fetus between 20 and 40 weeks gestation or the death of a fetus weighing over 500 grams; a neonatal death is the death of any infant born alive who survives less than one month. The National Center for Health Statistics (1993) reported over 30,000 fetal deaths and over 23,000 neonatal deaths per 4,111,000 live births. Within the research arena, fetal deaths, miscarriages, stillbirths and neonatal deaths have been grouped and termed "perinatal losses" (Callahan, Brasted & Granados, 1983; Hopkins-Hutti, 1988). Hence, the term "perinatal" will be used throughout the remainder of this paper.

Causes of Perinatal Loss

Correlational research has shed some light on the potential causes of perinatal demise. Hamilton (1984) interviewed women who had suffered an infant death regarding their exposure to radiation. The results indicated a higher rate
of stillbirths in women reporting exposure to radiation. Savitz (1989) also inter­viewed parents who had experienced the death of an infant (generally stillbirths) about their exposure to pesticides and radiation. The results, like those of Hamilton's indicated that women who had reported exposure to some form of radiation (e.g., X-ray) during their pregnancy had higher rates of stillbirth than did those women who did not report any exposure to radiation. In addition, although maternal exposure to pesticides did not indicate a trend, paternal exposure to pesticides was associated with higher rates of stillbirth.

Prager (1984) investigated maternal report of smoking and drinking (i.e., alcohol) behavior during pregnancy. Results of this study indicated higher rates of stillbirth and infants who were small-for-gestational-age associated with smoking behaviors during pregnancy while no increase in stillbirth was associated with alcohol use. Noteworthy is the fact that women who smoked prior to pregnancy were less likely to decrease or quit the behavior during pregnancy than were women who drank during pregnancy. In other words, the mothers in this study reported abstaining from alcohol use or greatly reducing their intake during pregnancy while their reported engagement in smoking behaviors remained relatively unchanged; such occurrences may help to account for the lack of incidence of stillbirth related to alcohol use alone.

A 1986 study by Porter found no correlation between stillbirth and maternal use of oral contraception, spermicide, Bendectin or antibiotics prior to (within 2 months) and during pregnancy. Again, data was collected via interviewing
women, retrospectively, regarding their use of such products. In order to increase validity, the author did include pharmacy records with regards to when prescriptions for Bendectin, oral contraception, and antibiotics were filled; however, the researchers did not confirm whether or not the prescribed medication was actually taken. Interestingly, Bendectin has since been taken off the market due to causal trends associated with its use and birth defects.

In general, causes of perinatal death have been attributed to toxic environmental factors occurring during pregnancy or attributed to "unknown" causes. Perinatal deaths preceded by entanglements in the umbilical cord, asphyxia, low birth weight, intrauterine growth retardation (IUGR) and the like are explained as having occurred due to toxic environmental factors, yet no explanation is available of the mechanisms by which such factors lead to these complications in the pregnancy. Education, proper prenatal care and proper feeding of preterm and low birth weight infants has been the primary mode of attempts to reduce the occurrences of perinatal loss.

The Impact of Perinatal Loss

The impact of perinatal loss on the mother, father, marital dyad and siblings has been best articulated and most thoroughly formulated within the behavioral and traditional psychoanalytical orientations. Condon (1986) asserts that perinatal loss may be more traumatic than, for example, the loss of an elderly relative due to the unique psychobiological environment in which it occurs, the
complex psychological characteristics of the identity of the lost object, and the sociocultural definition and meaning of the loss. Individuals experiencing the death of an elderly relative do not have the psychobiological entanglements of pregnancy to complicate their grief process. In addition, a deceased elderly relative is "alive in memory" as real and as experienced; individuals are able to vividly remember activities with their relative, and the feel and smell of their relative. The survivor is able to realize and account for a fulfilled life (i.e., the relative lived, married, had children, worked, saw grandchildren, etc.) whereas the family experiencing a perinatal loss is grieving the loss of fantasized wishes, hopes and dreams; with the exception of the fetal movements, the mother has nothing concrete by which to characterize her child's identity. Lastly, many, if not all researchers (e.g., Cullberg, 1972; Giles, 1970; Kellner, 1981; Kennell, 1970; Kirkley-Best, 1982; Leon, 1992; Theut, 1988) point to the need for prolonged social support from families and friends as aiding the grief process for individuals experiencing a perinatal loss. Unfortunately, society has very different expectations of how or if grief should be displayed and for how long a duration when the loss is an elderly relative versus a fetus or newborn.

Leon (1992) presents a multi-model conceptualization of the impact of perinatal loss as it differs from other losses. Steeped heavily in traditional psychoanalytical theory, Leon asserts an objects-relations model, a developmental model, a narcissistic model and a drive-theory model explaining such differences.

Pregnancy as a new developmental stage creates an arena in which
individuals must prepare for parenthood. In doing so, individuals identify with earlier conflicts and develop a new organization of their personality. Leon (1992) parallels the developmental process which occurs during pregnancy to that which occurs during adolescence. Perinatal loss creates an additional crisis in an already vulnerable developmental phase. Further, perinatal loss disrupts the developmental phase and may cause one to withdraw from the activities usually associated with childbearing peers. Hence, a unique sense of isolation plagues the grief subsequent to a perinatal loss.

Leon’s (1992) drive model defines the grief of perinatal loss as unique to other deaths in that it creates psychosexual conflicts. Powerful maternal needs to hold, feed, and care for the child are left unfulfilled. Hence, bereavement may be confounded by previously unresolved Oedipal conflicts and separation-individuation issues.

From an object-relations model, Leon (1992) defines pregnancy not only as the creation of a new child, but also as the revitalization of all parental relationships. Hence, resolution of grief subsequent to a perinatal loss requires grieving the child who had died as well as reexperiencing and/or resolving any previous conflicts within the relationship with one’s own parents.

Leon’s (1992) narcissism model defines the fetus much more as a physical part of the mother’s self than as an individual. Additionally, through pregnancy, females fulfill narcissistic ambitions (e.g., creation, power, sense of immortality). Hence, resolution of the perinatal loss is complicated by increased narcissism
associated with pregnancy. According to Leon, underlying shame, inferiority and helplessness replace the sense of infallibility pregnancy typically secures.

Brasted and Callahan (1984) and Callahan, Brasted and Grandos (1983) articulate the behavioral theory regarding the impact of perinatal death versus the death of an elderly relative as a non-normative life event which sensitizes the individual to death rather than promoting adaptation to death, which normative life events function to do. Generally, individuals experience expected, distant deaths throughout their life. For example, people experience the death of a great-aunt, then a grandparent, then the death of their parent, etc. These deaths are described as normative and function to promote adaptation to the death experience. Perinatal death is unexpected and out of the sequence of normative life events. Perinatal death is described as non-normative and serves to sensitize the individual rather than promote adaptation. Events which serve sensitization functions present as more traumatic in symptomatology.

The psychological adjustment of individuals experiencing a perinatal loss can be greatly affected by not only its unique grief process but also by premorbid personality characteristics and previous experiences with loss. Although the research regarding personal historical factors and their effects upon one's response to perinatal loss are scant, Lindemann (1944) asserted that individuals with obsessive personalities and histories of depression are more likely to experience chronic, morbid grief. Additionally, case studies presented by Jureidini (1993) suggest that obstetric complications can contribute to the genesis of Munchausen
Syndrome By Proxy (MSBP) through unresolved grief, secondary to perinatal bereavement. In a study by Hunfeld, Wladimiroff, Verhage and Passchier (1995), 41 women who had suffered a perinatal loss secondary to a prenatal lethal anomaly were interviewed at two to six weeks after the diagnosis and again at three months after the perinatal loss. The researchers were interested in the women's level of previous stress (defined by history of major life events, receipt of professional mental health treatment, and disposition for feelings of inadequacy and anxiety) and acute psychological defense reactions to the diagnosis. Hunfeld et al. (1995) found that inadequacy was the most strongly positive predictor of perinatal grief at both the time of diagnosis and at three months post loss. Additionally, having received mental health service in the past predicted significantly more intense grief shortly after diagnosis. With regards to previous experiences with loss, the research is mixed. Giles (1970) and Dyregrov & Matthiesen (1987) did not find any correlation between maternal functioning and previous miscarriages, while Theut (1989, 1990) found correlates between early and late losses with respect to increased dysfunction in the former.

The experience of perinatal demise and the subsequent bereavement reaction is nearly universally acknowledged to be associated with somatic distress, guilt, hostility, preoccupations, depression and fatigue (Cullberg, 1972; Dyregrov & Matthiesen, 1987; Giles, 1970; Hughes & Page-Leiberman, 1989; Kennell et al., 1970; Peppers & Knapp, 1980; Raphael-Leff, 1991). However, research indicates that paternal, maternal and even sibling reactions to perinatal loss may differ with
regard to severity, duration and the placement of blame.

Dyregrov & Matthiesen (1987) found that within a nonclinical sample fathers reported their feelings at the time of the loss to be "sad" and to last for, "a month or so" while mothers reported intense loneliness and feelings of emptiness for up to a year. Similarly, Vance, Najman, Thearle, Embelton, Foster and Boyle (1995) found that while maternal levels of anxiety and depression remained significantly higher than that of controls at two and eight months following an infant death from Sudden Infant Death Syndrome (SIDS), a neonatal death, or a stillbirth, the levels of paternal symptoms were far less evident eight months post-loss. Hughes and Page-Leiberman (1989) queried fathers regarding the existence of mother-father grief process differences and found that 69% of the subjects were able to identify that differences between their and their spouses' grief process did exist. Fathers indicated that their wives wanted to continually talk about the loss while they preferred to focus on other issues. Others indicated that they perceived the death as having not been preventable and viewing the hospital as least supportive while their wives felt responsible for the death and viewed family and friends as least supportive. Instruments such as the Beck Depression Inventory (BDI), the Perinatal Grief Scale (PGS), the Perinatal Bereavement Scale (PBS), the State-Trait Anxiety Scale (STAT) and the Impact of Events Scale (IES) have shown elevated scores for mothers yet elevated scores for fathers is not common (Cullberg, 1972; Lasker and Toeder, 1981; Theut, 1989, 1990). Lastly, Miron and Chapman (1994) investigated men's experiences with
miscarriage and identified four sequential phases of adjustment which differed from a six phase process put forth by Swanson-Kaufmann (1986) regarding women's experiences with miscarriage.

Hypotheses as to why the aforementioned gender differences exist focus on the differences which occur after the couple leaves the hospital as well as upon societal factors. Traditionally, fathers return to their place of employment and have very little time to brood upon the event while mothers remain at home, indefinitely or for an extended period to recover, both physically and emotionally and have extended periods of "free time" to think, process and brood upon the details of the loss. In addition, maternal feelings of guilt surrounding feelings of responsibility for the loss have no parallel within the paternal grief process - mothers feel responsible because the child was inside their physical person. Alternatively and in accordance with societal norms, men may block the deep emotional feelings associated with grief and loss and substitute a "take-charge" attitude in efforts to make everything alright for their wives. Notably, the men in Miron and Chapman's (1994) study identified their primary role as that of supporter to their partner.

Sibling reactions to perinatal loss have been virtually unexplored and no systematic, qualitative research exists (Leon, 1986). Sibling reactions are often that of confusion, fear, anxiety (generally of the separation type), somatic complaints and sadness. Leon (1986) presents four constellations of sibling reaction to perinatal death: "I killed the baby", "Mommy killed the baby", "I could die,
too" and "I will replace the baby". Siblings dealing with the loss as typified by the first constellation generally believe that their ambivalence and/or jealousy towards a new sister/brother caused the death. Typical symptoms include anxiety, somatic complaints and sadness. Siblings dealing with the loss as typified by the second constellation are usually the youngest of siblings and they generally believe that their mother must have killed the baby because their world and everything which happens in it is controlled by their parents. Typical symptoms include fear of the parents and confusion. Siblings dealing with the loss as typified by the third constellation generally experience nightmares, separation anxiety and regression (e.g., failure to use toilet skills, thumb sucking). Siblings dealing with the loss as typified by the last constellation generally want to relieve parental grief; in doing so, these children experience anxiety and fear.

Treatment Issues

Several researchers have described treatment models for grief work from behavioral (Callahan & Burnette, 1989; Ramsey, 1979), psychoanalytic (Condon, 1986; Leon, 1987), and supportive (Kellner et al., 1981; Kirkley-Best, 1982; LaRoche, 1982) perspectives. In addition, Harr and Thistlethwaite (1990) described various creative therapies (e.g., storytelling, journaling, bibliotherapy, color inventory, clay-modeling, posturing, and storyboarding) for the resolution of complicated and uncomplicated bereavement. Although no one treatment method has been systematically found to be of greater efficacy than another in the treatment
of bereavement (Condon, 1986), each has its strengths and weaknesses. The behavioral therapies (e.g., flooding, exposure, systematic desensitization) require fewer sessions than the psychoanalytic therapies (even short-term psychoanalytic therapy). The behavioral therapies, however, may initially cause the individual more intense feelings of discomfort than would psychoanalytic therapies. The creative therapies provide greater insight into potential areas of conflict rather than providing actual resolution of the conflict issues.

It has been found that psychological recovery is not as good in individuals whose grief is denied display, especially if they do not belong to a united family, feel that they have nothing left to live for, or can not fit their loss into a secure religious or philosophical background (Covill, 1968, cited in Giles, 1970; Editorial, 1967; Maddison & Walker, 1967). Related, LaRoche, Lalinec-Michaud, Engelsmann, Fuller, Copp, McQuade-Soldatos and Azima (1984) found that Beck Depression Inventory (BDI) scores were significantly correlated with seeing and touching the baby after death whereas the Mourning Scale scores did not show such a correlation. LaRoche et al. (1984) indicate that such a phenomenon suggests that women grieve whether or not they see and hold the baby but that depression is more likely to occur in women who do not have physical contact with the baby. Hence, exposure to stimuli associated with a loss is thought to be the critical ingredient in overcoming pathological grieving (Callahan & Burnette, 1989). However, two controlled attempts (Mawson, Marks, Ramm & Stern, 1981; Sireling, Cohen & Marks, 1988) to prove the importance of exposure to grief
stimuli have not conclusively demonstrated that importance.

Sireling et al. (1988) replicated the 1981 study by Mawson et al. In both studies, patients with morbid grief reactions subsequent to the loss of an attachment figure (e.g., parent, spouse, adult child) were randomly assigned to either guided mourning or antiexposure treatment groups with corresponding between-session homework. Patients in the guided mourning group were encouraged to expose themselves repeatedly to avoided cognitive, affective and behavioral cues concerning bereavement (e.g., writing a letter to the deceased and reading it aloud at the grave site; ventilation of negative feelings; facing avoided and/or distressing situations, objects, or people reminding them of the deceased). With the antiexposure group, the approach taken with the bereaved by many medical and lay persons was formalized for evaluation by encouraging patients to get on with living, not to think about the loss, to avoid anything painful connected with the loss, and to think about the future rather than dwell on the past.

Sireling et al. (1988) modified the Mawson et al. (1981) design in the following ways:

1. Instead of six sessions over two weeks, the replication study had 10 sessions over 14 weeks.

2. Both the exposure and antiexposure groups had more systematic advice, support, and help concerning relationships, work and leisure activities than in the original study.

3. To the avoided bereavement cues used in the original study, Sireling
et al. added affective and cognitive cues such as anger, guilt, and painful memories and ruminations.

4. To self-assessments, Sireling et al. added a blind assessor and a broader range of measures.

5. Follow-up in the replication was nine months rather than five months post treatment.

6. The replication made use of cue cards to monitor and rate homework together with ratings of compliance between and within sessions.

Both studies showed improvement posttreatment and follow-up, but avoidance and distress to bereavement cues improved more in guided mourning than in antiexposure cases. On other measures, guided mourning yielded only marginally more benefit, gains in these areas being partly independent of reduced avoidance of bereavement cues (Sireling et al., 1988). However, the outcome of the two aforementioned studies were confounded with procedural flaws. There was subject violation of researcher instructions, differences in pre- versus post-treatment assessment methods and the unintentional and uncontrolled phenomena of the "antiexposure" instructions serving a paradoxical function whereby the subject(s) actually increase their contact with the stimuli associated with the loss (Callahan & Burnette, 1989).

According to Giles (1970), who interviewed 40 women who had just lost babies in the perinatal period, although doctors treated the women's physical symptoms and prescribed sedatives liberally, in about half the cases the physicians
avoided discussing the death of the baby. Giles (1970) asserted that the women needed a sympathetic listener and reassuring explanations to remove misconceptions and guilt and to provide confidence for future pregnancies.

Although the role of exposure to grief stimuli remains unclear, experiencing perinatal death and the subsequent grief reaction remains a crisis for many individuals. LaRoche et al. (1984) offered 30 mothers who had experienced a perinatal death crisis intervention aimed at facilitating their grief process at a few days, three weeks and three months after the loss. The mothers participated in three one-hour interview sessions and completed various self-rating scales (i.e., Life Events Schedule, Beck Depression Inventory and a Mourning Scale); assessments of grief reactions were based on the criteria of Parks and Lindemann. Following the three assessment sessions, the mothers' grieving behavior was classified as either an "Appropriate Grief Reaction" (AGR) or an "Inappropriate Grief Reaction" (IGR); an IGR was overly intense, shallow or absent as compared to an AGR. One to two years following the perinatal loss, the mothers were again interviewed to assess for functioning as related to psychological adaptation, relationships to spouses, family and friends as well as the degree of satisfaction with hospital services and care, and attitudes toward future pregnancies. LaRoche and colleagues found that six of the 30 mothers showed IGRs at the three week and three month assessment. By the long term follow up, only one of those six displayed depression or another psychiatric disorder. Three other mothers not identified as high risk candidates by the three month evaluation developed high BDI
scores and clinical depressions at the one to two year assessment. Assessment of the presence of mourning in all the subjects as measured by the Mourning Scale confirms the findings of other studies and implies that a substantial degree of bonding precedes tactile contact between mother and child (LaRoche et al., 1984). In addition, the relatively low BDI scores and low incidence of pathological variants of grief may indicate the usefulness of therapeutic intervention with this population (LaRoche et al., 1984).

The current trend in the mental health care system is to successfully treat individuals using the least number of sessions while expending the least amount of dollars. In addition, systematic examinations of the clinical treatment interventions employed to reduce and eliminate the symptoms of a grief reaction have been inconclusive. Given the current demand for the availability of psychological treatment services for couples/individuals experiencing a perinatal loss and the mental health care system trend, the behaviorally oriented treatment methods, with their trademark of therapeutic success within a limited number of sessions, appear to be best suited for investigation.

Historically, exposure treatment strategies have warranted a basis of solid empirical research regarding their efficacy. According to Masters, Burish, Hollon and Rimm (1987), in the 1970s there was an increase in reports of exposure procedures and their effectiveness in treating a variety of disorders, such as phobias (Yule, Sacks, & Hersov, 1974), anxiety neurosis (Girado, 1974), Post Traumatic Stress Disorder (PTSD) (Black & Keane, 1982), obsessive-compulsive behavior
(Hackman & McLean, 1975), agitated depression (Hannie & Adams, 1974), psychogenic urinary retention (Glasgow, 1975), somatic complaints (Stambaugh, 1977) and social withdrawal in children (Kandel, Ayllon & Rosenbaum, 1977). Throughout the perinatal loss literature, many of the above stated symptoms (e.g., depression, anxiety and fear) are repeatedly reported by individuals experiencing such a loss.

According to Marks (1987), the exposure principle is the process by which continued exposure to stimuli that evoke distress results in habituation and extinction of innate and acquired fear, anxiety or distress. The exact mechanisms by which exposure reduces distress may differ across diagnoses depending on what type of stimuli are being avoided. The mechanisms at work in resolving grief subsequent to perinatal loss are hypothesized to be as follows. Bereaved individuals avoid talking about the death, perhaps for years, because of the subjective and/or objective distress produced by such verbal exchanges and/or because family and friends avoid listening to them because of the distressful nature of the content. Hence, bereaved individuals and potential listeners learn to escape the distress by withdrawing or changing the conversation topic and the verbal content thus retains its conditioned emotional response values. With exposure-based treatment, the individual is instructed to speak of the death, the deceased, etc. to a therapist trained to listen whenever the individual is ready to talk and who continually redirects the verbal exchange on the topic until the patient becomes calm. Hence, escape (Sr-: negative reinforcement or relief) is contingent upon being able to talk
about the relevant issues with decreasing distress, rather than avoiding the topic as in the past. Alessi (1992) describes "analog verbal conditioning" whereby verbal behavior conditions neutral verbal stimuli as conditioned emotional stimuli. Therefore, the mechanisms at play which allow the bereaved individual to experience decreased distress while engaged in verbal dialogue may include "analog verbal conditioning" (e.g., reframing), habituation to the conditioned emotional responses associated with key verbal stimuli as well as learned coping responses (e.g., relaxation); all such mechanisms help the patient stay with the topic, moderate the distress level, and not withdraw from the conversation.

The current study assessed both individual and marital adjustment to and resolution of the grief reaction subsequent to a perinatal death. Data was collected prior to, during, and following an exposure based treatment intervention. It was hypothesized that the clinical procedure of exposing bereaved individuals to imaginal, in vivo, and verbal stimuli associated with a loss would serve multiple functions. First, an exposure based treatment protocol may serve to validate a loss often construed by society not to be "real". Second, the treatment sessions may provide an opportunity for the bereaved to "work through" issues yet unresolved and/or denied. Overall, it was hypothesized that post- and follow-up assessment scores of depression, marital discord, daily stress, and bereavement would be lower as compared to baseline measures. Given that the systematic study of treatment methodologies aimed at reducing the symptoms of bereavement in individuals subsequent to a perinatal loss is limited, this study may benefit
the literature not only by clarifying the importance of exposure to stimuli associated with the loss, but also by serving to advance the literature regarding an appropriate, effective and brief treatment intervention specific for grief reactions subsequent to a perinatal loss.
CHAPTER II

METHOD

Subjects

Characteristics and History

Three individuals (1 male and 2 females) served as volunteer subjects. The mean subject age was 39 years (range 36 years and 6 months - 43 years and 8 months). Subjects number one and two were married to each other and had a marked history of infertility. The couple’s loss of interest for purposes of this study was a stillborn male (35 weeks gestation); the loss occurred two years and eight months prior to their participation. Following the stillbirth, the couple also suffered a miscarriage (nine weeks gestation). The couple had no living children. Subject number three was married; however, her spouse was not eligible for participation in the study because he was not the father of the deceased child. Subject number three did not have a history of conception complications and the loss of interest for purpose of this study was a male child born at 28 weeks gestation; the loss occurred 16 years and three months prior to her participation. The subject had not been told of the cause of death, nor did she know if the child had been born alive. The subject had two subsequent pregnancies which produced two living male children (8 years, 6 years); no further perinatal losses occurred.
Both female subjects were pharmacologically treated for a period of one week with Valium or Tylenol-3 following their loss. All subjects had participated in a local perinatal loss support group and subjects one and two received individual psychotherapy for six to eight months following their loss.

Recruitment

Subjects were recruited via a mass mailing of an informational invitation to local OB/GYN physicians, advertisement in local newspapers, and a mass mailing of an informational invitation to local perinatal loss support groups. Volunteers who evidenced psychotic features and/or those who used antidepressant and/or antianxiety medication did not qualify for participation. The second exclusion criterion was included based upon the theory that antianxiety and antidepressant medications may interfere with the individual's abilities to fully experience the exposure-based treatment approach. One volunteer was excluded due to this criterion.

Setting

The initial interview, three subsequent experimental sessions, and the post-assessment session (one-week follow-up) were held in the outpatient clinic of Children's Hospital of Michigan Department of Child Psychiatry and Psychology within the Detroit Medical Center. During sessions, only the researcher and one subject was present. Baseline and follow-up questionnaires were completed in the
subjects' homes.

Materials

The areas of interest in this study were individual and marital adjustment to and resolution of the grief reaction subsequent to a perinatal loss. Questionnaires used during this study included the Beck Depression Inventory (BDI), the Daily Stress Inventory (DSI), the Dyadic Adjustment Scale (DAS), the Self-Evaluation Questionnaire (Form Y-1), the Symptom Checklist 90-Revised (SCL-90-R), the Perinatal Bereavement Scale (PBS), The Perinatal Grief Scale - short version (PGS), the Beck Hopelessness Scale (BHS), and the Self-Experiences Questionnaire (Appendix A). Additionally, subjects participated in a structured interview (Appendix B).

The BDI is a 21-item instrument designed to assess the severity of depressed moods in adolescents and adults. Internal consistency estimates based upon Cronbach's coefficient alpha for the mixed, single-episode major depression, recurrent-episode major depression, and dysthymic patients were .86, .80, .86, and .79 respectively. The range of Pearson product-moment correlations between pretest and posttest administrations of the BDI for varying time intervals for psychiatric patients ranged from .48 to .86, whereas the test-retest correlations of non-psychiatric patients ranged from .60 to .90 (Beck & Steer, 1987).

The DSI (Brantley & Jones, 1989) is a 58-item instrument which measures the number and relative impact (7-point scale) of common minor stressors.
frequently experienced in everyday life. The DSI provides a current measure of stress over a 24-hour period and can be administered serially over several days or weeks. The DSI yields three basic scores: (1) the Event score - the number of items rated as having occurred that day; (2) the Impact score - the sum of the impact rating values assigned to each item; and (3) the I/E Ratio - the average impact rating for the day, calculated by dividing the Impact score by the Event score. The I/E Ratio score was used for purposes of this study. Alpha coefficients of internal consistency were calculated for the Event and Impact measures but not for the I/E Ratio because it is a composite of the Event and Impact scores. Coefficients were .83 and .87 for Event and Impact scores, respectively. Evidence for the concurrent validity of the DSI has been shown in studies of three independent samples (Brantley, 1987a, 1987b; Brantley, Dietz, McKnight, Jones, and Tully, 1988).

The DAS is a 36-item questionnaire designed to assess marital functioning with regard to finances, recreation, religion, affection, goals, household tasks, career, communication, and commitment. Items are rated on a 6-point scale from "always agree" to "always disagree" or a 5-point scale from "every day" to "never". Other items are "yes/no" questions.

The Self-Evaluation Questionnaire (Form Y-1) is a 20-item questionnaire designed to assess anxiety. Each item is rated on a 4-point scale from "not at all" to "very much so" with regard to how anxious the individual feels at the moment they are completing the questionnaire.
The SCL-90-R is a 90-item, self-report symptom inventory developed by Leonard Degroogatis of Clinical Psychometric Research; it is designed primarily to reflect the psychological symptom patterns of psychiatric and medical patients. Each item is rated on a 5-point scale of distress (0-4). The instrument is scored and interpreted in terms of nine primary symptom dimensions and three global indices of distress. Measures of internal consistency for the nine dimensions range between a low of .77 to a high of .90. Test-retest reliability measures hover between .80 and .90 (Degrogatis, 1977).

The PBS is a 26-item instrument designed especially for the cited research to measure the bereavement of parents who have experienced a perinatal loss. The PBS focuses on the thoughts and feelings (including sadness, guilt, anger, and preoccupation with the loss) experienced by parents after a perinatal loss. Each item is scored on a 4-point Likert scale. Although the items appear to have face validity, no data have been reported on the validity and reliability of this instrument (Theut, Zaslow, Rabinovich, Bartko and, Morihisa, 1990).

The PGS - short version is a 33-item scale developed to measure grief for research on pregnancy loss (spontaneous abortion, ectopic pregnancy, fetal death, and neonatal death) based upon the original 84-item 5-point Likert-type Perinatal Grief Scale. The standardized alpha coefficient of the long versions is .97. Reliability analysis for each of the three subscales and the total scale of the short version is higher than .85. Test-retest reliability correlations between the first and the second rounds for each of the three factors and for the total scale range from
The BHS is a 20-item scale for measuring the extent of negative attitudes about the future (pessimism) as perceived by adolescents and adults. The BHS maintains high internal consistency across seven clinical samples (suicide ideators, suicide attempters, alcoholics, heroin addicts, single-episode Major Depression Disorders, recurrent-episode Major Depression Disorders, and Dysthymic Disorders); the corresponding Kuder-Richardson reliabilities were .92, .93, .91, .82, .92, .92, and .87, respectively. Pearson product-moment correlation between test-retest scores ranged from .69 to .66 (p < .001). The BHS also maintains respectable integrity across six aspects of validity: content, concurrent, discriminant, construct, predictive and factorial (Beck & Steer, 1988).

The Self-Experiences Questionnaire was designed specifically for the purposes of this study. The questionnaire was used to gather subjective reports from the subjects regarding somatic symptoms, social support and the utility of participating in the study.

The structured interview was designed specifically for the purposes of this study and was used to obtain information regarding subject characteristics, type of pregnancy loss, history of conception complications, receipt of medical and psychological services and the characteristics of any living children.
Procedure

Design

A single-case research design was used. Subjects provided baseline data for a duration of two weeks prior to entering the one-week treatment phase. Subjective Units of Disturbance (SUDS) were taken at 15-minute intervals during the three experimental sessions in an attempt to assess "contact" with exposed stimuli.

Experimental Sessions

Subjects attend an initial interview and pre-assessment session, three experimental sessions, and a post-assessment session (one-week follow-up). Additionally, one-month follow-up data were collected through the mail. Each of the three experimental sessions was time-limited to one hour; the other sessions ended upon completion of the interview and questionnaires. All experimental (i.e., exposure) sessions were conducted by the author under the supervision of a fully licensed, Ph.D. level Clinical Psychologist with prior clinical experience working with couples who have experienced a perinatal loss.

After the general purpose of the study was explained ("We are interested in knowing how to better aid and support individuals who have experienced a perinatal loss"), subjects signed an informed consent form and had the option of signing a release of medical records form for their and/or their child's medical records. Subjects then participated in the structured interview and completed the
questionnaires. Subjects number two and three were also instructed to complete their questionnaires in privacy and to avoid sharing and/or discussing their responses. Subjects completed the Self-Experience Checklist and the BHS at the initial interview, following the last treatment session and at follow-up only; the Self-Experience Checklist and the BHS were not completed weekly.

Following a baseline period of two weeks, the subjects presented at the clinic for the first of three experimental sessions. During the one-hour sessions, the subjects were asked to engage in verbal dialogue with the researcher regarding their experiences. Subjects discussed details surrounding their attempts to conceive, the pregnancy, the labor/delivery, the child, the funeral and their hopes, dreams, expectations, and loss. Two subjects brought in articles of clothing, pictures and mementoes of the pregnancy and child. The third subject chose to sign the release for medical records; however, relevant information and pictures were not able to be used during experimental sessions because the subject's medical records were never located by hospital personnel. In essence, the researcher organized each of the exposure sessions so as to maximize verbal, imaginal and in vivo exposure to stimuli associated with the loss. The three experimental sessions occurred within a one week span, with each session being at least one day apart.

Within a week following the last experimental session, the subjects returned to the clinic for the post-assessment session. During this session, subjects again completed the questionnaires. The researcher answered any questions the
subject may have had and a list of community referrals for further mental health services was provided. All subjects completed the experimental sessions and participated in a one-week follow-up.

Follow-up

One month following the last session, subjects were mailed a questionnaire packet and asked to return the materials in an enclosed, confidential, self-addressed, and stamped envelope. Subjects who failed to return the materials within two weeks were contacted by phone on three separate occasions to prompt the return of the materials. Two subjects returned completed questionnaire packets at the one-month follow-up. Despite having received the questionnaire packet on three occasions and in contrast to her verbal report, subject number three failed to return her one-month follow-up data.

Scoring and Analysis

The BDI is scored by summing the ratings for each of the 21 items. The final summation is then compared to a preestablished cut-off score (e.g., 0-9 normal/asymptomatic; 10-18 mild-moderate depression; 19-29 moderate-severe depression; 30-63 extremely severe depression).

The DSI is scored by counting the number of items that received a rating and entering this number in the "Event" space. An additional summation score is calculated by summing the item ratings and entering that number in the
"Impact" space. The "I/E Ratio" score is calculated by dividing the Impact score by the Event score. The score(s) is then compared to a normative table in order to determine the corresponding T-score and percentile. One-day administration, one-week administration and multiweek administration methods are scored in the same manner.

The SCL-90-R is scored by first transferring the 90 items scores from the test paper to the profile sheet. Second, summed distress scores for each of the nine symptom dimensions and the "additional" items of the instrument are calculated by adding together all the non-zero distress scores from each item comprising the dimension. Third, each summed distress score is divided by its respective number of items. Fourth, in order to calculate the three global indices one must take a grand total of the summed distress scores for the nine dimensions and the additional items. Dividing that score by 90 provides one with the Global Severity Index (GSI). The next step involves counting the number of positive symptom responses to arrive at the Positive Symptom Total (PST). By dividing the grand total calculated in step four by the PST, the Positive Symptom Distress Index (PSDI) is achieved. Once the raw dimension scores and globals are calculated, they are referred to the appropriate norm table for conversion to standard T-scores.

The PBS and the PGS are both scored by totaling the number of items endorsed and summing the rating level of each individual response.

The DAS is first scored according to the scoring key. There are separate
weighted values for the DAS scoring and for the original Locke-Wallace scoring. The obtained scores for items one through 32 are transferred to the DAS scoring sheet for each partner. The points are then summed to obtain a subscale score. The sum total of the four subscales gives the total DAS score.

The Self-Evaluation Questionnaire (form Y-1) is scored by simply adding the weighted scores for the 20 items that make up each scale. Scores for both forms can vary from a minimum of 20 to a maximum of 80. The raw score totals for each form are then compared to normative data and the corresponding percentile rank is determined.

The BHS is scored by summing the keyed responses of hopelessness for each of the 20 items. Responses which indicate nonhopelessness receive a score of zero and responses indicating hopelessness receive a score of one. The number of hopelessness responses are totaled and the sum is indicated on the line provided at the bottom of the questionnaire. The maximum score is 20. The total is then compared to general guidelines for interpretation (0-3, normal range or asymptomatic; 4-8 is mild; 9-14 is moderate; greater than 14 is severe).

The resulting data (i.e., changes in assessment scores) were graphed and visually inspected for clinically significant change. The results are presented in the following section.
CHAPTER III

RESULTS

Depression

Measures of depressed mood, as assessed by the BDI, are shown in Figure 1. Subject one consistently reported a moderate-severe level of depression during the baseline, treatment and one-week follow-up phases. However, at the one-month follow-up phase subject one’s depression level had improved to within the mild-moderate range.

Subject two’s reported depression level was within normal limits at

![Figure 1. Scores on Beck Depression Inventory.](image-url)

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baseline, yet increased to within the mild-moderate range prior to the treatment phase. However, subject two's level of depression improved and returned to within normal limits during the treatment phase and remained within normal limits throughout both follow-up phases.

Subject three reported a mild-moderate level of depression at baseline which improved to within normal limits prior to the treatment phase. Subject three's depression rating remained within normal limits throughout the remainder of the treatment and follow-up phases.

Hopelessness

Pre and post measures of hopelessness, as measured by the BHS are shown in Figure 2. Subject one reported a moderate level of hopelessness at baseline.

![Figure 2. Scores on Beck Hopelessness Scale.](image-url)
Subject one’s level of hopelessness worsened to within the severe range at both follow-up phase ratings.

Subject two also reported a moderate level of hopelessness at baseline. However, in contrast to subject one, subject two’s level of hopelessness significantly improved to within normal limits at the one-week follow-up phase and rose slightly to within the mild range at the one-month follow-up.

Subject three reported a mild level of hopelessness at baseline which rose to within the moderate range at the one-week follow-up.

Psychopathology

Measures of psychological symptomatology, as assessed by the SCL-90-R, are shown in Figure 3. Throughout all phases of the research, subject one
reported symptoms which were sufficient in frequency and severity to be indicative of clinically significant psychopathology. Subject one’s T-scores were greater than 80 at baseline, treatment and the one-week follow-up phases; his T-score was 75 at the one-month follow-up phase.

During the baseline phase, subject two reported symptoms which were at or near the border of clinical significance (T=60; T=56). During the treatment phase, subject two’s reported symptomatology fell to within normal limits (T=40) and continued to decline through the 1-week follow-up phase (T=37). Although subject two reported an increase in symptomatology at the one-month follow-up (T=51), her symptoms were still within normal limits and lower than baseline.

Subject three reported symptoms which were borderline significant (T=60) at baseline and fell to within normal limits prior to and during the treatment phase (T=50). However, subject three’s symptomatology returned to a borderline significant level (T=63) at the one-week follow-up.

Daily Stress

Measures of common and minor daily stressors, as assessed by the DSI are shown in Figure 4. Throughout the baseline, treatment and one-week follow-up phases, subject one experienced daily stressors which were sufficient in frequency and impact to be clinically significant (T=74). At the one-month follow-up, subject one reported decreased experiences with daily stressors (T=65).

Throughout all phases of the research, subject two’s experiences with daily
stressors remained within normal limits. Subject two's T-scores for baseline, treatment, one-week follow-up and one-month follow-up phases were 51, 56, 47, 48, and 46, respectively.

Subject three reported experiences with daily stressors which were sufficient in frequency and impact to be clinically significant at baseline (T = 74), yet which fell to within normal limits prior to the treatment phase (T = 47) and remained as such throughout the remainder of the research. Subject three's T-scores for treatment and one-week follow-up phases were 45 and 50, respectively.
Maternal Bereavement

Measures of maternal bereavement, as assessed by the PBS are shown in Figure 5. The PBS does not have preestablished cut-off scores with which to define levels of bereavement. Both female subjects evidenced elevated levels of bereavement; however, subject three maintained the same level of bereavement throughout baseline, treatment and follow-up phases while subject two evidenced a decrease in reported bereavement symptomatology during the treatment phase. Subject two's improved bereavement status maintained throughout both follow-up phases.

![Figure 5. Scores on Perinatal Bereavement Scale (Mothers Only).](image-url)
Grief

Measures of grief subsequent to a pregnancy loss and assessed by the PGS are shown in Figure 6. Like the PBS, the PGS does not have preestablished cut-off scores with which to define levels of grief. Subject one consistently endorsed a majority of the items on the PGS. Subject one’s active grief process remained elevated in symptomatology throughout baseline, treatment and follow-up phases.

Subject two’s responses showed a mildly elevated grief process at baseline which subsequently decreased in symptomatology during treatment and follow-up phases.

Subject three reported virtually no symptoms representative of an active grief process at baseline. Although the return of an incomplete questionnaire

![Figure 6. Scores on Perinatal Grief Scale.](image-url)
prevented a measure of grief at the treatment phase, subject three's follow-up measure of grief is consistent with baseline measures.

Anxiety

Measures of state anxiety, as assessed by the Self-Evaluation Questionnaire (Form Y-1) are shown in Figure 7. Subject one's state anxiety scores remained high throughout all phases of the research and ranged from the 91st to the 100th percentile.

Subject two reported clinically significant levels of state anxiety at baseline (87th percentile, 82nd percentile). Her anxiety then decreased to within normal limits during the treatment and one-week follow-up phases (50th percentile, 19th

![Figure 7. Scores on Self-Evaluation Questionnaire - Form Y-1.](Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.)
percentile); however, the decrease in anxiety was not maintained at the one-month follow-up phase (72nd percentile).

Subject three's data shows the most fluctuation. Clinically significant state anxiety at baseline (89th percentile) fell to within normal limits prior to the treatment phase (44th percentile). However, subject three's decreased anxiety was of a brief duration; although not returning to the baseline level, measures of state anxiety increased at treatment and one-week follow-up phases (68th percentile, 73rd percentile).

Marital Relations

Measures of dyadic adjustment, as assessed by the DAS are shown in Figure 8. Four subscales comprise the DAS: Dyadic Consensus, Dyadic Satisfaction, Affectional Expression and Dyadic Cohesion. High total scores on the DAS are indicative of better dyadic adjustment; the maximum score is 151. DAS scores from subject numbers one and two, who were married to each other indicate a positive marital relationship. Additionally, both subjects reported improved dyadic adjustment at the treatment and one-month follow-up phases.

Subjects one and two were married to each other during their participation in the research; hence, a comparison of their subscale responses was possible. The subscale profile for subjects one and two is shown in Figure 9 and Figure 10. Subject one's response set shows virtually no change across all phases. However, there is improved dyadic satisfaction at the one-month follow-up phase. Subject
Figure 8. Scores on Dyadic Adjustment Scale.

Figure 9. Scores on Dyadic Adjustment Subscales - Subject #1.
two's response set shows virtually no change across all phases.

Although the DAS scores from subject three indicate a troubled marital relationship throughout all phases of the research, dyadic adjustment was improved from that assessed at baseline at all subsequent phases. Subject three's spouse was not eligible for participation in the research; hence, a comparison of subscale scores is not applicable.

**SUDS-Level**

Subjective Units of Disturbance, as reported by each subject at 15 minute intervals are shown in Figure 11, Figure 12 and Figure 13. Subject one reported an absence of emotional distress throughout the first and second treatment
Figure 11. Subjective Units of Disturbance - Subject #1.

Figure 12. Subjective Units of Disturbance - Subject #2.

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Figure 13. Subjective Units of Disturbance - Subject #3.

sessions. Not until the third treatment session did subject one come into contact with emotion-laden issues. Subjects two and three each reported emotional distress throughout each of the three treatment sessions.

Participant Report

Subjective reports of somatic symptoms and the utility of participation in this project, as collected from the Self-Experience Questionnaire, are shown in Table 1. All three subjects initially presented with multiple somatic symptoms. At follow-up, only subject one had maintained the multitude of somatic symptoms; both subjects two and three reported significantly less somatic distress at follow-up. Common to all subjects was the consistent presence of feelings of
### Table 1

**Summary of Subjective Data**

<table>
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<tr>
<th>Subject #</th>
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<th>1 Week Follow-up</th>
<th>1 Month Follow-up</th>
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</thead>
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<td>hopelessness</td>
<td>hopelessness</td>
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<tr>
<td></td>
<td>anxiety</td>
<td>anxiety</td>
<td>anxiety</td>
</tr>
<tr>
<td></td>
<td>marital distress</td>
<td>marital distress</td>
<td>marital distress</td>
</tr>
<tr>
<td></td>
<td>sadness</td>
<td>sadness</td>
<td>sadness</td>
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<tr>
<td></td>
<td>anger</td>
<td>anger</td>
<td>anger</td>
</tr>
<tr>
<td></td>
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<td>poor concentration</td>
<td>poor concentration</td>
</tr>
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<td>no social support</td>
<td>no social support</td>
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</tr>
<tr>
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<td>anxiety</td>
</tr>
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</tr>
<tr>
<td></td>
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<td>sadness</td>
<td>sadness</td>
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<td></td>
<td>poor concentration</td>
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<td>headaches</td>
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**Did participation in the research project help you?**

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<tr>
<td>Subject #3</td>
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**Did your spouses' participation in the research project help you?**

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<tbody>
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<td>Subject #3</td>
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**Did your spouses' participation in the research project help him/her?**

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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Subject #2</td>
<td>yes</td>
</tr>
<tr>
<td>Subject #3</td>
<td>n/a</td>
</tr>
</tbody>
</table>
sadness and anger. Although subject one had not viewed his participation in the research as helpful to himself at the conclusion of his participation, by the one-month follow-up, he had changed his position and viewed his participation as beneficial. Both female subjects consistently reported their participation in the research to have been helpful not only to themselves, but also to their spouses.
CHAPTER IV
DISCUSSION

This study explored the efficacy of exposing bereaved parents to stimuli associated with their deceased child as a means of alleviating their grief reaction. Clinically significant improvement occurred on measures of depressed mood and psychopathology for two subjects. All subjects showed improved marital relations. Two subjects showed an increased level of hopelessness following the treatment intervention. Treatment effects were mixed for symptoms of stress, anxiety, bereavement and grief.

Previous attempts to assess the efficacy of an exposure-based treatment intervention for grief reactions (Mawson, Marks, Ramm, & Stern, 1981; Sireling, Cohen, & Marks, 1988) were not directed toward grief subsequent to perinatal death. Hence, this study serves to advance the clinical research on perinatal loss by providing data on the efficacy of a short term, exposure based treatment intervention for grief subsequent to perinatal death.

Early researchers in the field identified marital relations, social support, mental health and coping responses as the best predictors of and areas of focus for promoting uncomplicated bereavement and avoiding complicated bereavement (Hughes & Page-Leibermann, 1989; LaRoche, 1984; Lasker & Toeder, 1981; Moscarrello, 1989; Peppers and Knapp, 1980; Seitz, 1974). Hence, the results of
this study, which detected more treatment effects on general dependent measures of depression, marital functioning and psychopathology than on specific dependent measures of bereavement and grief subsequent to a perinatal loss are consistent with previous research. Further, results of this study expand the previous research by providing support for subjective reports by parents experiencing a perinatal loss that the death of their child had global and long lasting effects upon themselves, their spouse, their marital, familial and social relationships.

Systematic examinations of the clinical treatment interventions employed to reduce and eliminate the symptoms of a grief reaction have been limited and inconclusive. Unfortunately, the conclusions which can be drawn from this study are also limited by a small number of subjects and the absence of a control group, as well as being inconclusive. Despite recruiting subjects by multiple means (e.g., newspaper ads, personal contact with and presentations to support groups, letters to medical personnel) and within multiple locations (e.g., southwest Michigan, suburban Michigan, central Oklahoma), response was too limited to implement a controlled, group design. The limits of this study (e.g., small sample, no control group), as well as previous research within the literature prevent one from making experimentally sound decisions about the role of exposure to stimuli associated with a loss. This study does, however, provide some clinically relevant evidence to support future investigations of the use of exposure paradigms in treating perinatal loss induced grief reactions. Continued recruitment is planned in order to expand the number of bereaved individuals clinically treated with this exposure-
based approach. Additionally, the findings of this study should serve to alert medical and mental health professionals to the need for thoroughly assessing the multifaceted aspects of parental adjustment to perinatal death.

Further research is needed to determine whether or not the parents who endure the hardship of the death of their child may be better served if hospital personnel give permission to and encourage family members to hold the baby, take pictures, name the baby, organize funeral services, communicate with the physicians, nursing staff and amongst themselves, and grieve as would be done in response to the death of any other family member. Second, future research to determine the benefit derived from educating parents about the grief reaction (e.g., incongruent bonding, incongruent grieving among spouses, familial reactions to perinatal death) is needed. Additionally, future research is needed to determine the benefit derived from educating family members and friends with regard to the fact that perinatal death is a real loss for parents and that the grief is likely to be as long and more intense as that expressed over the death of an older child or spouse. Family and friends may need to be advised to support their loved ones for at least six months to a year and perhaps up to two years after the death and to encourage maternal discussions about the child and the death, her subsequent fears, anxieties, anger and sadness without excluding or minimizing the effect of perinatal loss on the father.

Small sample sizes and the absence of well controlled, group design research plagues perinatal loss research. Ideally, future research would replicate
treatment intervention studies within controlled, group design contexts. However, the difficulties incurred in attempting to design and implement such research may not be easily overcome. Researchers may find it difficult to recruit parents who have suffered a perinatal loss for various reasons. First, parents may be resistant to engage in a research project shortly after experiencing such a traumatic event. Second, parents may be lost to direct recruitment contacts (e.g., medical staff, psychologists, chaplains) after leaving the hospital. Third, parents may deny the extent or degree of their grief reaction and hence fail to seek further professional contact. Lastly, the current manner in which health care professionals prepare and support parents enduring a perinatal loss may be sufficient to diminish the occurrence of complicated bereavement; however, professional experience sheds grave doubt on such a hypothesis.

The establishment of multidisciplinary teams consisting of OB/GYN physicians, clinical psychologists, nurses and social workers who provide comprehensive care to expectant parents may provided an arena through which to overcome the difficulties inherent in perinatal loss research. Parents may be more inclined to participate in research shortly after the death of their child if they had preexisting relationships with members of the multidisciplinary team. Second, increased interdisciplinary collaboration may serve to gather recruitment resources and subject pools thereby increasing the likelihood of implementing group design research.
Appendix A

Self-Experiences Questionnaire
Self-Experience Checklist
(Initial Interview)

Please complete the following checklist as it applies to your experiences since the time of the loss of your pregnancy/child.

As a result of my loss, I have experienced the following (check all that apply):

___ guilt
___ hopelessness
___ fear
___ anxiety
___ marital distress
___ sadness
___ anger
___ difficulty concentrating
___ a lack of social support
___ headaches
___ stomach distress
___ interactions with a support group (please describe)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

___ support from family, friends, etc. (please describe)

________________________________________________________________________
________________________________________________________________________

___ other (please explain):

________________________________________________________________________
Self-Experience Checklist
(End of Treatment)

Please complete the following checklist as it applies to your experiences since the time you began participation in the research project.

As a result of my loss, I have experienced the following (check all that apply):

___ guilt

___ hopelessness

___ fear

___ anxiety

___ marital distress

___ stomach distress

___ interactions with a support group (please describe)

___ support from friends, family, etc. (please describe)

___ other (please explain):

Do you feel that your participation in the research project helped you?  ___ yes  ___ no

If applicable, do you feel that your spouses' participation in the research project helped you?  ___ yes  ___ no

If applicable, do you feel that your spouses' participation in the research project helped her/him?  ___ yes  ___ no
Self-Experience Checklist
(Follow-up)

Please complete the following checklist as it applies to your experiences since the time your participation in the research project ended.

As a result of my loss, I have experienced the following (check all that apply):

____ guilt                     ____ sadness
____ hopelessness              ____ anger
____ fear                      ____ difficulty concentrating
____ anxiety                  ____ a lack of social support
____ marital distress         ____ headaches
____ stomach distress
____ interactions with a support group (please describe)

____ social support from family, friends, etc. (please describe)

____ other (please explain):

__________________________
__________________________
__________________________

Do you feel that your participation in the research project helped you? ____ yes   ____ no

If applicable, do you feel that your spouses' participation in the research project helped you? ____ yes   ____ no

If applicable, do you feel that your spouses' participation in the research project helped her/him? ____ yes   ____ no
Appendix B
Structured Interview
Structured Interview

Code Number: ________________________________

DOB: __________________________

Marital Status: __________

Gender: _______

Type of loss:
  a. pregnancy related –
     explain: gestational age, cause (if known), gender (if known), number of previous losses
  b. child (must have been born alive) –
     explain: age, cause, gender, number of previous losses
  c. date of occurrence

Explain any history of conception complications:

Explain any involvement with medical and or mental health agencies regarding the loss:

Explain the type and use of any medication prescribed during the pregnancy and/or following the loss:

Explain any involvement with support groups:

Number of living children:
  age:
  gender:
  health status:
Appendix C

Human Subjects Institutional Review Board Approval
Date: June 27, 1994
To: Michelle Rosa
From: Kevin Hollenbeck, Chair
Re: HSIRB Project Number 94-04-04

This letter will serve as confirmation that your research project entitled "Perinatal loss: An exposure-based approach for alleviating feelings of grief in bereaved parents" has been approved under the full category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: June 27, 1995

xc: Burnette, Psych.
Date: June 21, 1995

To: Rosa, Michele L.

From: Richard Wright, Interim Chair

Re: Old HSIRB Project Number 94-04-04
   New HSIRIB Project Number 95-06-17

This letter will serve as confirmation that an extension to your research project entitled "Perinatal Loss: An exposure-based approach for alleviating feelings of grief in bereaved parents" has been granted by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now continue to implement the research as described in the original application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date. In addition if there are any unanticipated adverse or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the continued pursuit of your research goals.

Approval Termination: June 21, 1996

xc: Michele Burnette, Psych.
Dr. Heather Huszti  
Pediatrics/Hematology-Oncology  
CHO 2B265  

SUBJ: An Exposure-based Approach to Alleviating Feelings of Grief in Bereaved Parents’.

Dear Dr. Huszti:

The University of Oklahoma Health Sciences Center’s Institutional Review Board reviewed the above-referenced protocol at its regularly scheduled meeting. The informed consent document and the protocol are hereby approved. You may begin subject enrollment. It is the Board’s judgment that the rights and welfare of the individual who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46, as amended; and that the potential benefits to subjects and to others warrant the risks subjects may choose to incur.

As principal investigator of this protocol, it is your responsibility to insure that this study is conducted as approved by the Board. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request in an amendment letter or memorandum to me. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

It is a condition of this approval that you report promptly to the Board any serious, unanticipated adverse effects experienced by subjects in the course of this research, whether or not they are directly related to the study protocol. These adverse effects include, but may not be limited to, any experience that is fatal or immediately life-threatening, is permanently disabling, requires (or prolongs) inpatient hospitalization, or is a congenital anomaly, cancer, or overdose. For multi-site protocols, the Board must be informed of serious adverse effects at all sites.

The approval granted here is effective for one year. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the Board with a progress report summarizing study results to date. IRB staff in the Office of Research Administration will request that progress report from you approximately ten weeks before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the Board, please contact IRB staff. Finally, please review your professional liability insurance to make sure your coverage includes the activities in this study.

Sincerely yours,

Laura I. Rankin, M.D.
Chair, Institutional Review Board
The University of Oklahoma  
Health Sciences Center

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BIBLIOGRAPHY


