

THE EMOTIONAL ADJUSTMENT OF SIBLING SURVIVORS OF
LEUKEMIA AND SIDS VICTIMS AS EVIDENCED BY
ATTITUDES TOWARD PARENTAL BEHAVIOR
AND PRESENCE OF PSYCHOSOMATIC
SYMPTOMS

by

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CHAPTER I

INTRODUCTION

During the past two decades, a number of studies have indicated that the death of a family member due to accident or disease has a tremendous impact upon the survivors. Rutter (1966) found that children attending a mental health clinic were twice as likely to have lost a parent as were those of other groups in the general population. Although there was no clear connection between the death of a parent and a specific diagnosis, Caplan and Douglas (1969) reported that bereaved children entering therapeutic services were prone to depression and anxieties, particularly that of refusing to go to school. Van Eerdewegh, Bieri, and Parrilla (1982) observed that in the 13-month period subsequent to the death of a parent, children displayed significant dysphoria, minor depression, increased bedwetting, and impaired academic performance. The work of Rutter (1966) suggested that the appearance of symptoms often lagged behind the parent's death by as much as five years. The literature to date, then, has indicated that children who have experienced the death of a parent are at risk for considerable emotional distress.

The trauma associated with parental loss has been well documented. Sibling death and its ramifications has received considerably less attention. Cain, Fast, and Erickson (1964) have reviewed the disturbed reactions of children to the death of a sibling. In their research with psychiatric patients, inordinate guilt, misguided ideas of illness and death, diminished cognitive functioning, and concerns over family structure were noted. Weston and Irwin (1963) looked at the responses of preschoolers to the loss of a sibling. They concluded that in the case of either a stillborn child, or a postnatal death, the survivors were left confused over their respective roles in the family. Cain and Cain (1964) suggested that one of the surviving children frequently is compared to his or her dead sibling. Thus, the individual becomes the replacement child. Tooley (1975), on the other hand, has made mention of the scapegoat, or the child who is blamed by the parents for the death of a younger sibling. The literature seems to show that children must accommodate to the death of a brother or sister, as well as to the grief of the parents.

In the past 30 to 40 years, effective chemotherapy and radiation treatment have significantly extended the lifespan of many children with leukemia. While no one may begrudge leukemic children their new-found longevity, the disease may now have a more pervasive impact on the family. Binger, Albin, Feuerstein, Kushner, Zoger, and Mikkelson (1969) were

at the forefront of investigating the effects of leukemia on the family unit. A total of 20 families were interviewed, and the data indicated that in 50% of the cases at least one family member had been seen for psychiatric treatment. Depression and somatization were often the presenting concerns. Further, in half of the families, one or more of the siblings exhibited behaviors that suggested difficulty coping. This finding was supported by the work of Powazek, Payne, Goff, Paulson, and Stagner (1980) who were also interested in the family's adaptation to childhood leukemia. Using interviews and psychometric measures, the authors determined that 45% of the mothers were very anxious, and 38% were quite depressed. In addition, 81% of the families had siblings who developed significant behavioral changes subsequent to diagnosis. Physical symptoms and anxiety were noted among others. Much of the available literature raises questions about the family's ability to cope with childhood leukemia, and recognizes that siblings may be particularly vulnerable to the stress of the disease process and their parents' reaction to it (Binger et al., 1969; Powazek et al., 1980).

There has been a growing interest in Sudden Infant Death Syndrome (SIDS) and its effects on family members. Mandell and Belk (1977) indicated that because the loss is unexpected, parents are not able to prepare themselves for the tragic event. They generally responded in an

exaggerated manner, and engaged in a variety of self-recriminations. Mandell, McAnulty, and Carlson (1983) determined that the surviving children in SIDS families have been shown to change their eating and sleeping habits, play behavior, toileting, and parental relationships. It appears that the ordeal of the siblings of those who die from SIDS is difficult at best and has serious implications for emotional development.

Significance of the Study

The present investigation is significant in view of the fact that in the last three to four decades, advances in medicine and technology have permitted more and more children to be successfully treated for leukemia. However, by increasing the life span of those afflicted with leukemia, issues have arisen with respect to the quality of existence, the psychosocial costs of care, and the possibility of family members developing chronic, psychological problems secondary to the stress of being a part of the disease process (Fife, Norton, & Groom, 1987). By extending the number of months or years that leukemic children live, there is a concomitant increase in the emotional strain experienced by parents, brothers, and sisters.

The current study is also significant due to the fact that " . . . SIDS is the leading cause of infant deaths for

those between one week and one year of age . . . " (May & Breme, 1982, p. 59). Geertinger (1968) and Pflaumer (1983) have estimated the incidence to fall between 10,000 and 15,000 deaths annually. Previous research has centered on the psychological impact of SIDS on parents. SIDS parents have experienced marital discord subsequent to the death of a child and have reported disturbances in eating, sleeping, and physical well-being (Lowman, 1979; Rappaport, 1962). For many of the infants, there are sibling survivors who may have an emotional crisis of enormous proportions. It seems plausible to suggest that the surviving siblings may be affected in terms of attitudes towards parental behavior and the presence of psychosomatic symptoms. To date, there appear to be few studies that address the coping behavior of siblings to loss and none that compare the adjustment of siblings of leukemic children with that of siblings of SIDS victims. This would allow for more attention to be focused on the surviving siblings and would highlight similarities and differences between one situation in which there is time to prepare for death and another situation in which there is no time to prepare for death.

This study was designed to help fill a void in the pediatric psychology literature. The results of this research should be useful to those in the medical and counseling fields.

Statement of the Problem

The purpose of the study was to investigate the following question:

Are there differences among the siblings of healthy children, those of children who have died from leukemia, and those of children who have died from SIDS in terms of attitudes toward parental behavior and presence of psychosomatic symptoms?

Definition of Terms

Leukemia is defined as " . . . a rare, almost uniformly fatal disease, characterized by excessive production of white blood cells, which are usually found in greatly increased numbers in the blood" (Barnhart, 1967, p. 700).

Sudden Infant Death Syndrome is defined as " . . . the sudden and unexpected death of a previously healthy infant that remains unexplained after careful postmortem studies" (Department of Health, Education, and Welfare, 1978, p. 3).

Attitudes toward parental behavior is defined as children's perception of parents along several dimensions including support, punishment, control, rejection, indulgence, and autonomy, as determined by scores on the Cornell Parent Behavior Description (Devereux, Bronfenbrenner, & Rodgers, 1969).

Presence of psychosomatic symptoms is defined as the number of physical complaints of children, as noted by parents on the Children's Health Check-list (Cassady, 1982).

Limitations

The limitations of this study were as follows:

1. Subjects were male and female children between the ages of 5 and 15.
2. Subjects were generally older siblings of either healthy children, leukemia victims, or SIDS victims.
3. Subjects came from two-parent families with no more than three children in each and were the only siblings from their respective families to participate.
4. Subjects experienced the loss of a brother or sister within the last 10 years.
5. The children who served as subjects were of different developmental levels and, thus, had different concepts of death.

Assumptions

The following assumptions underlie the interpretation of this study:

1. The instrument used to solicit children's attitudes toward parental behavior was modified when indicated and was assumed to be adjusted to the cognitive

capabilities of the subjects.

2. The responses of the children and their parents were accurate and valid.

Hypotheses

The null hypotheses for this study were as follows:

1. There will be no significant difference between siblings of healthy children, siblings of leukemia victims, and siblings of SIDS victims in their attitudes toward parental behavior.

2. There will be no significant difference between siblings of healthy children, siblings of leukemia victims, and siblings of SIDS victims in the presence of psychosomatic symptoms.

Organization of the Study

This study is composed of five chapters. Chapter I begins with an introduction, which addresses the impact of disease and death on the survivors. Chapter I also notes the scarcity of literature in the area of sibling loss and details the research question under investigation. Definitions of terms and limitations, assumptions, and hypotheses underlying the study are included.

Chapter II consists of a review of relevant literature, while focusing on the attitudes toward parental behavior and the presence of psychosomatic symptoms in siblings of

healthy children, siblings of leukemia victims, and siblings of SIDS victims.

Chapter III outlines the methodology of the study. The subjects, instrumentation, procedures, research design, and statistical analysis are detailed.

Chapter IV is the results section of the study, and data are presented as they relate to the purpose of the investigation and the hypotheses. Chapter V is a summary of the results, along with conclusions and recommendations. The references and appendixes follow.

CHAPTER II

REVIEW OF LITERATURE

The emotional adjustment of the siblings of children who have died from leukemia and SIDS may be reflected in their attitudes toward parental behavior and the presence of psychosomatic symptoms. A review of the pertinent literature is included in this chapter, and is divided into two major sections with three subsections in each.

The first section addresses the research in the area of children's attitudes toward parental behavior, and discusses the perceptions of siblings of healthy children, siblings of leukemic children, and siblings of SIDS victims. The second section centers on studies related to the presence of psychosomatic symptoms in children and, again, refers to the groups of children mentioned.

Attitudes Toward Parental Behavior

Siblings of Healthy Children

Since the latter half of the 19th century, interest in parent-child relations has been on the increase (Schaefer, 1965; Stodgill, 1937). Much of the early work focused on children's reports of parental affection, dominance, and

punishment (Barnes, 1900; Schallenberger, 1894). Around 1930, however, researchers began to look at children's preferences for parents (Bowers, 1931; Nimkoff, 1928; Simpson, 1935), and the attributes children deemed as desirable in fathers and mothers (Meltzer, 1935). More recently, there have been studies concerning parental relationships and the ego development of children (Ausubel, Balthazar, Rosenthal, Blackman, Schpoont, & Welkowitz, 1954), perceptions of relationships by children and parents (Serot & Teevan, 1961), and the discriminative analyses of paternal and maternal behaviors, based on reports of sons and daughters (Stinnett, Farris, & Walters, 1974). Over the years there has been a trend in this area of research to look at specific parent behaviors and the impact upon children. On the one hand, the behavior of parents affects the way they are viewed by children, while on the other hand, parent behavior plays an important part in the formation of the self-concept in children. The literature that follows suggests that children's attitudes toward parental behavior are a function of what transpires between parents and children in the objective world, and of the personal meaning children attribute to the behavior of parents in their subjective world.

Barnes (1900) was one of the first authors to study parental discipline and its effects on children by examining 4,000 youths, aged 7 to 16, on their perceptions of

punishments received for various misdeeds. In analyzing their responses, Barnes (1900) concluded that children can accept discipline when they believe there is a just cause. Children did not, however, want to be reprimanded when they were innocent of accusations, or when they were guilty through no fault of their own. Additionally, children reacted unfavorably to their parents' use of excessive force, and to punishment that was administered with malice.

Schallenberger (1894) investigated the preferred modes of punishment for 3,000 school children. The results indicated that as children grew older, they cared less for whippings, being sent to bed, and having quiet time in their rooms. They would rather discuss the prohibited behaviors and their consequences, be threatened to conform to rules and regulations, and be excused for having made errors in judgment. Boys and younger children were harsher on themselves and others than were girls and older children in terms of doling out punishment. Younger children also selected punishments based on outcomes, while older children did so only after consideration of motives.

To summarize, there were two main implications to be drawn from the work of Barnes (1900) and Schallenberger (1894):

1. Children who were treated in a fair and rational manner had more positive attitudes toward their parents than did children who had been punished by their parents in a

severe and unjust way.

2. The notions that children held in regard to punishment, and their perceptions of parents as disciplinarians, were likely influenced by socialization and altered through experience.

Nimkoff (1928) examined a number of factors related to parent-child intimacy, including children's obedience to, confidence in, and participation with, parents. The data were collected, by way of questionnaire, from 1,336 males and 1,336 females, with an average age of 18 years. The findings, represented by percentages, suggested that sons as well as daughters were more obedient to their mothers than to their fathers. Children, also, placed more confidence in their mothers, and took part in activities more often with mothers than with fathers. Daughters indicated that they felt more intimate with their mothers than did sons.

Nimkoff's (1928) research was supported in part by the subsequent work of Bowers (1931). Employing the Child-Parent Relationship Questionnaire, 1,168 high school and college students conceded a preference for their mothers over their fathers regardless of the age of the respondent. An additional finding indicated that both males and females believed the opposite-sex parent was especially fond of them.

Simpson (1935) interviewed 500 children, aged 5 to 9, in regard to parent preferences. He found that a greater

percentage of children, irrespective of sex, chose their mothers over their fathers as the most preferred parent. The older the children, the less they preferred their fathers. In revealing their rationale for selecting one parent to the relative exclusion of the other, children showed deference to the parent who attended to their physical needs, who engaged in play with them, who was overtly affectionate towards them, and who was reluctant to punish them.

In summary, the research of Nimkoff (1928), Bowers (1931), and Simpson (1935), highlights the strength of the bond between mother and child. Although subjects were 16 years of age and older, having had sufficient time to draw close to their fathers, the intense affection for their mothers was evident. The following statement, first published in 1814, appears to be as appropriate as ever: "Mothers have as powerful an influence over the welfare of future generations as all other earthly causes combined" (Kagan, Kearsley, & Zelano, 1978, p. 178).

Children's attitudes toward parental behavior can be inferred from their reports of discipline practices in the home, discussion of parent-child intimacy, and disclosures in regard to parent preferences. Often, children's perceptions of parents have been influenced by the degree to which the adults were seen as acting consistent with their respective roles. The remainder of this section focuses on

this point.

Meltzer (1935) utilized the Single Free Association Interview as a means of assessing children's attitudes toward parents. A total of 150 children participated in the study with 50 children each representing three different socioeconomic backgrounds--high, average, and low. The subjects' task was to verbalize 10 attributes associated with their mothers and their fathers. Reactions, recorded as percentages, demonstrated that mothers were named most often as the parent who "does for you" (Meltzer, 1935, p. 250). Subsumed under this category were items such as ". . . send to school, gets you out of trouble, . . . and sacrifice" (Meltzer, 1935, p. 250). Mothers were also more likely to be named as the parent who possessed desirable "personality characteristics," "physical characteristics," and were most deserving of "parental loyalty" (Meltzer, 1935, p. 250). Fathers, conversely, were identified as the parent who "takes care of you" (Meltzer, 1935, p. 250). Children identified their fathers as the parent who entertains them, gives to them, and disciplines them. Many of the items contained within the category for fathers dealt mainly with support in the financial sense.

Ausubel et al. (1954) studied the effects of perceived parental attitudes on the development of children's ego structure. More specifically, the authors were curious as to how children's feelings of acceptance/rejection and

intrinsic/extrinsic valuation related to level of ego aspiration, goal frustration tolerance, and ideational independence. A total of 40 fourth and fifth grade students, with a mean age of 10.3 years for boys and 10.2 years for girls, responded to several projective instruments, such as the Thematic Materials Test and the Blacky Pictures. The subjects also completed the Parent Attitude Rating Scale. In terms of outcomes, girls perceived themselves to be accepted and intrinsically valued more often than did boys. Ausubel et al. (1954) proposed that this result was consistent with the socialization process. In Western culture, the traditional female has gained identity via validation of the self through family and friends. The stereotypic male, on the contrary, has been expected to create his own sense of self, and to rely less on the impressions of others. Given that there were no significant differences between individuals who perceived themselves as either intrinsically or extrinsically valued on ego dimensions, the main hypothesis is left unsupported.

Serot and Teevan (1961) proposed that parents and children have different perceptions of their relationship. A sample of 102 boys and girls, who were 9 and 10 years of age, completed the Swanson Child-Parent Relationship Scale. In addition, 70 couples filled out a modified version of the same instrument. The results confirmed the authors' expectations. Children's perceptions, and those of mothers

and fathers, correlated .17 and .19, respectively. Thus, the authors concluded that it is important for parents to be aware of this discrepancy, and to understand that children react to their perceptions of events and not necessarily to the authenticity of the events themselves.

Droppleman and Schaefer (1963) attempted to separately analyze boys' and girls' reports of maternal and paternal behavior. In their first study, 85 boys and 80 girls (ages 12-14) were administered a parent behavior inventory. All subjects rated their mothers significantly higher than their fathers on factors such as love, nurturance, and affection. To the cluster defined by irritability and nagging, boys were inclined to evaluate their fathers higher than their mothers, while the opposite was true for girls. Both boys and girls identified their fathers as being more rejecting, neglectful, and ignoring than their mothers. Covert, indirect methods of control were employed more frequently by mothers according to children of both sexes. The parent of the opposite sex was more likely to use overt, direct means of punishment, and permitted children to experience more autonomy, as well.

There were differences to be found in boys' and girls' reports on each parent. For example, girls felt that they received more love, affection, and nurturance than did boys from either their mothers or fathers. Boys saw their parents as significantly more hostile than did girls.

Additionally, boys acknowledged that they felt controlled in overt and covert ways by both parents, but especially by the father. Girls, conversely, did not have strong feelings about either parent in this regard.

The second study by Droppleman and Schaefer (1963) was undertaken in an attempt to replicate the earlier findings. For this investigation, however, they utilized a different parent behavior inventory, and worked with older children (ages 15-18) from a lower socioeconomic group. Many of the results were in agreement with those obtained previously. One exception was that in the second study mothers were rated higher than fathers on the autonomy cluster. Further, the differences in children's reports on each parent relative to control were at odds with those of the initial inquiry. While in the first study girls expressed little concern about parental control, in the second study girls, more often than boys, disclosed that they received the greatest amount of psychological control from their mothers.

The authors demonstrated that sex of child and sex of parent interact in complex patterns to influence how boys and girls report the behavior of their mothers and fathers. For the most part, data collected in the two studies were consistent, and were supportive of the relevant literature. Thus, Droppleman and Schaefer (1963) suggested that reports of maternal and paternal behavior by boys and girls be analyzed separately for more precise and meaningful

interpretations of parent-child interactions.

Stinnett et al. (1974) examined the perceptions of male and female high school students regarding parent-child relationships. A total of 499 individuals completed a questionnaire designed to ascertain such information. There were significant differences between male and female children on several factors. Males were twice as likely as females to designate their father as the source of most parental discipline during childhood. Conversely, females were more inclined than males to cite both parents as being about equally affectionate during childhood. Male students reported that their mothers demonstrated more affection than their fathers in earlier years. According to the findings, females were praised more often during childhood than were males. Also, a greater number of females than males indicated that their mothers were available often to take part in activities with them. Students were divided along sex lines as to the source of greatest parental influence. Boys named their fathers more often than their mothers, and girls did the contrary.

These studies provide evidence for the differential effects of parents on children--namely, that mothers were more influential than fathers on the children. Stinnett et al. (1974) speculated that this may, in part, be due to fathers putting pressure on their young sons to accept the male sex role. It seems plausible that these boys may not

have understood their fathers' encouragement and, hence, felt ashamed in this regard. Early interactions of this kind may set the tone for the developing relationship. The fact that adolescent girls characterized their parent-child interactions as more positive and supportive than did the boys lends credence to this proposition.

In summary, the research on attitudes toward parental behavior involving physically healthy children has progressed from studies on discipline/punishment, to ego structure development, to the differential effects of mothers and fathers on children. The literature demonstrates that children's perceptions of parents rely on an evaluation of external events, as well as an appraisal of internal states.

Siblings of Leukemic Children

For approximately 30 years, researchers have been studying the impact of terminal illness and death on the psychosocial adjustment of family members (Kubler-Ross, 1969; Mattson, 1972; Richmond, 1958). The primary focus of such research has been on the reactions of parents to the loss of children, or on the response of children to the loss of parents. Little has been written, however, with respect to the bereavement of sibling survivors of leukemia victims. The few studies that are relevant to this topic, and that address siblings' attitudes toward parental behavior, are

presented.

Wold and Townes (1969) were interested in sibling adjustment to the prolonged illness and death of a child. Twenty-two healthy siblings of leukemic children and their parents were tested during three consecutive summers. Children completed the Silhouette Test and the Communication Questionnaire, while the parents filled out the Symptom Checklist. The results suggested that 10 months after initial diagnosis, the greatest amount of parental communication concerning the disease was directed toward the sibling over 9 years of age. Communication tended to diminish with age. The communication problem alluded to in this study was also commented on by Rosen (1984). In her research on childhood sibling loss, 62% of the sample population claimed that the death of a brother or sister was never discussed with another family member.

Data from the second evaluation showed no significant difference in the amount of parental communication relevant to the disease between the 5- to 9-year-olds and the oldest siblings. At the time the final evaluation was completed, 5 of the 8 children with leukemia had died, and all siblings were aware of the diagnosis and prognosis, regardless of age.

The shift toward a realistic understanding of leukemia was different for boys and girls. Between the first and second evaluation, boys generally saw the child with

leukemia as becoming healthier, while girls were aware of the ill child's deterioration. This was noted in spite of the fact that a greater amount of parental communication was directed to the boys. The type of information disclosed to the healthy siblings was not studied. It may be speculated, then, that parental communication was either inaccurate, incomplete, or irrelevant, and that the parents may have been perceived by their sons as being overprotective, misinformed, or uninvolved.

In a related study, Cairns, Clark, Smith and Lansky (1979), in their work on the adaptation of siblings to childhood malignancy, administered The Family Relations Test to 36 patients, and to 31 of their brothers and sisters. The data indicated that the siblings felt very isolated from their parents, particularly their mothers. Mothers were described as being overprotective and overindulgent of the patients, leaving the siblings to feel neglected in favor of the children with cancer. Siblings suggested that parents were slow to meet their needs, while time, attention, and financial resources were directed toward the patients. As a result, siblings began to be uncomfortable with their dependence upon parents who had become physically and emotionally unavailable. Diffuse anxiety and fear of illness permeated their lives. In view of these findings, the siblings of the leukemia victims would be expected to have feelings of hostility toward their parents. However,

they were less likely than the patients to express negative affect with respect to parental behavior. As indicated by the authors, the siblings' reluctance to express their anger may reflect insecurity about their precarious position within the family. Their behavior also may have been motivated by fears about continued neglect and abandonment.

Fife et al. (1987) studied the specific effects of childhood leukemia on family life, and on the lives of individual family members. The study included 31 siblings of children with acute lymphatic leukemia who were between 6 and 17 years of age. The Moos Family Environment Scale, the Locke-Wallace Short Marital Adjustment Test, the Spielberger State-Trait Anxiety Inventory, the MMPI, interview material, and school records were pertinent data sources. Repeated measures analysis of variance was utilized as the test statistic for the four psychometric instruments, while information obtained from interviews and school records was evaluated qualitatively. Relevant results indicated low state anxiety levels for both patients and siblings at the time of diagnosis through the first year post-diagnosis. However, these self-reports were inconsistent with children's questions to the examiner and teachers, and their behavior. The authors suggested that denial was being used as a defense mechanism in order to limit the conscious experience of anxiety. Parents showed a steady decline in anxiety over the 12-month period, although their initial

scores were less than expected, given the stressful circumstances. In terms of marital satisfaction, parents' scores fell below those of well adjusted couples in the normative group, but were above those of couples who were in marital therapy.

The Moos Family Environment Scale purports to measure interactions among family members, and is a type of barometer of the social climate within the household. There are several subscales, such as cohesion, conflict, independence, and control. Longitudinal analysis of the various subscales revealed stability over time in most areas. One aspect of family life that did change was the level of control (i.e., the extent to which rules are enforced in order to maintain organization). There was a significant increase in the control dimension from time of diagnosis to the 4-month testing. The authors explained this finding by suggesting that as control in one area of living is either diminished or lost, control in another area tends to rise. Concerns about decreased control may emanate from a sense of helplessness and may be inversely proportional to it.

MMPI data indicated that a third of the mothers were at least moderately depressed 3 months following diagnosis compared to 21% of the fathers. After a year, the figure had dropped to 19% for the mothers, but rose to nearly 29% for the fathers.

With respect to school records, siblings generally experienced a drop of .5 in their grade point average from the year before diagnosis to the year subsequent to the onset of the illness. This lowering of the grade point average was not seen as frequently with siblings from functional families, nor did the afflicted children show such changes. In addition, there was a concurrent increase in the intensity of negative behaviors, including rebelliousness, attention-seeking, and poor peer relationships. Withdrawal and a lack of motivation were also noted, while school attendance patterns remained the same. The authors concluded that even in the most functional families, individuals will have their coping skills tested when confronted by a crisis such as childhood leukemia. They further determined that individuals from intact families may exhibit behavioral and emotional changes that are generally fewer and more benign than are those seen in individuals from dysfunctional families.

Blinder (1972) documented three case studies that illustrate the effects of sibling death in childhood. For example, Ruth (age 9) had an older brother die of malignant lymphoma 3 years earlier. Since that time, she has displayed a marked restriction of affect and motor inhibition. In therapy, it was discovered that Ruth had received much attention from her parents with few demands being placed upon her. The one implicit demand was that she

"merely need remain alive" (Blinder, 1972, p. 172). Her parents also were noted to be overly controlled with respect to emotional expression. Thus, Ruth seemed to be mirroring parental behavior and expectations, while acting in such a way so as to avoid death herself.

Pollock (1986) referred to childhood sibling loss as being a family tragedy. The author suggested that it is often difficult for parents to deal with their own distress, and at the same time, be a source of support for the remaining children. The case report method was utilized, and the anecdotal data indicated that when parents become overly focused on the ill or dead child, and when they fail to attend to the needs of the siblings, this sets the stage for intrapsychic and interpersonal problems.

Adam, whose younger brother had a type of cancer similar to leukemia in that it was characterized by exacerbations and remissions, recalled that he and Richard had an intense sibling rivalry. This was fostered by their mother's desire for "healthy competition" (Pollock, 1986, p. 313) between the boys, and perhaps, by the relative neglect of Adam. He developed mixed feelings for his brother, but generally sought to control Richard and have power over him. During one point in the course of the disease, Richard became very depressed and considered suicide through non-compliance with treatment. Adam responded with guilt and rage initially, and then felt shame for reacting as he had.

It seems plausible that the rivalry between the brothers--aided by their mother's behavior--led Adam to have death wishes for Richard. When death came close to becoming a reality, Adam's guilt surfaced as if he would have caused this to happen. His rage may have resulted from Richard nearly making a murderer of him. The idea of Adam being a part of Richard's demise was shameful to him. Adam entered psychotherapy to work through his feelings for Richard prior to his anticipated death.

In summary, systematic research on siblings of leukemic children has been limited. Statements about attitudes toward parental behavior, therefore, must be tentative. From the literature discussed, it appears that communication between parents and siblings regarding the disease process is less than optimal. Siblings may come to view their parents as being either overprotective, misinformed, or uninvolved. They may then feel neglected, and begin to question their dependence upon parents who are unavailable to them. A sense of isolation may develop, along with anxiety and depression in affectively constricted children. Intrapsychic conflicts and interpersonal problems may be signals that professional assistance is warranted, as the family attempts to cope with terminal illness and death.

Siblings of SIDS Victims

In the previous section, literature was presented that

addressed siblings' reactions to the terminal illness or death of a brother or sister due to leukemia. Although leukemia is a life-threatening disease, both children and their parents have time to prepare for death. The circumstances surrounding SIDS are different in that it takes the life of the newborn with no apparent warning, with no time to intervene, and with no opportunity to say good-bye. What, then, are the effects of this unexpected tragedy on the surviving siblings, in terms of their attitudes toward parental behavior? The material that follows is intended to shed light on this important question.

Cain and Cain (1964) utilized case material and the findings from previous investigations to examine the behavior of bereaved parents following the loss of a child. Initially, they presented suicidal ideation, hopelessness, harsh self-recriminations, inconsolable grief, and withdrawal from family and friends into memories of the idealized child. Through it all, the parents made a conscious decision to substitute for the child who had died by having replacement children. In time, these children exhibited ". . . blatant signs of pathology directly traceable to the parental environment" (Cain & Cain, 1964, p. 499).

Aside from the fact that the substitute children lived in homes where the atmosphere was mournful, the parents went on at length about the virtues of the deceased. They were

aware of the repetitiousness of their conversations, and that the content was depressing to the family, but the parents appeared to be at a loss to behave differently. Most of the time, the parents were preoccupied with the thoughts of what might have been.

The parents imposed the identity of the dead child upon the replacements in other ways, also. Cain and Cain (1964) reported that children were occasionally called by the name of the dead sibling. This happened in face-to-face conversations with the siblings in addition to discussions about the brother or sister who died. Further, the substitute children were continually compared with the deceased. For example, comments were made as to likenesses in physical appearance and mannerisms. Also, there were expectations that the replacements would hold similar interests and abilities as the one who died. In the end, these children realized that they could never satisfy their parents in terms of matching the preferred child's accomplishments. Rather than attempting to establish personal worth, the replacement children engaged in self-depreciations, and they minimized their importance to others.

Parents, at times, manage their grief by treating the surviving child as the scapegoat. Bermann (1973) indicated that the stage is set for this phenomenon when the family experiences considerable stress for an extended period, and

when this mode of behavior has proved successful in the past. The death of a child is an excruciatingly painful event that leaves parents feeling anxious and guilty. To lessen their burden, the parents may unconsciously choose a sibling to punish and reject. The family can then function with greater psychological effectiveness (Ackerman, 1958).

On an individual level, however, the scapegoat must deal with being the outcast of the family. Tooley (1975) documented the case of "Linda Z." whose sibling died shortly after birth. The young girl's mother communicated to her verbally and nonverbally that she was the cause of the death. To make her daughter aware of these sentiments, the mother employed sadistic forms of punishment, such as locking Linda out of the house in near zero weather. Linda, in turn, responded with provocative behavior, that could be interpreted as her way of acting-out the anger, incorporated guilt, and general sense of worthlessness.

Halpern (1972) addressed three instances where the older sibling was in the company of the mother when the dead child was discovered. There was a boy who had followed his mother to the baby's room for a routine check. When the child was found to be cyanotic and limp, the mother " . . . threw her son against the wall and questioned him about hitting the baby" (Halpern, 1972, p. 59). The combined effect of the catastrophic incident, along with the treatment he received in the aftermath, gave rise to a

personality change in the child. The once happy and extroverted boy became sullen and withdrawn. His relationship with the mother was tenuous, at best, and was largely hostile-dependent in nature.

Williams (1981) also studied sibling reactions to SIDS. Forty-nine children were evaluated over a 9-month period subsequent to the loss of a brother or sister from SIDS. The interview method was utilized, and examples of topics covered included the parents' emotional state and discussion between the siblings and parents about the dead child. Direct observations of the children were made, and teachers' behavioral reports were taken. The results indicated that children up to the age of 9 were very much influenced by their parents' state of grief. For example, displays of initial panic and distress on the part of the parents seemed to provoke some children under the age of 6 to run and scream and, in a few cases to yell, "My baby's dead." Others who responded in a more subdued and solemn manner had children who were quiet or went on playing. The 6- to 9-year-old group, in particular, revealed feelings of sadness and a preoccupation with death in their drawings and play. These older children also attempted to comfort their parents, and would avoid discussing the tragedy if they thought that their parents were reluctant to do so. The author suggested that children 10 years and above had reactions similar to those of their parents, though the reactions were more the

result of cognitive-emotional development than they were the consequence of induced behavior. In general, those children who appeared to have the healthiest relationships with their parents were encouraged to talk about the baby and the loss.

Price, Carter, Shelton, and Bendell (1985) examined maternal perceptions of SIDS. Seventy-three mothers who had a child die of SIDS completed a questionnaire designed to measure parental and family grief reactions. Chi-square data indicated that mothers' satisfaction with emotional support systems was related to the concomitant effects upon marital relationships, mothers' relationships with surviving children, and surviving sibling adjustment. More specifically, 70% of the mothers claimed to have become closer to their children after the infant's death, while 21% recalled feeling more distant from the surviving siblings. Further, significantly more mothers (87%) with perceived support reported that their surviving children were coping well at follow-up compared to 45% of children whose mothers reported inadequate emotional support. The important point to be drawn from this study is that the emotional well-being of the surviving siblings is intricately tied to the mothers' capacity to cope with loss. The remaining children responded favorably to mothers who see the relationship as becoming closer subsequent to a SIDS death.

McCown and Pratt (1985) conducted a study focusing on the impact of sibling death on surviving children's

behavior. Siblings died from a variety of causes, including SIDS, leukemia, and accidents. Data were obtained by interviewing the mothers of 65 children using the Child Behavior Check-List. This instrument assesses behavior problems common to bereaved children. A revised version of the Spinetta communication tool, designed to measure parent-child communications in families with a terminally ill child, was also utilized. Although there were no significant relationships between behavior scores and communication levels, communication was the most frequently mentioned item affecting adjustment. As previously suggested, children's observations of parental grief often color their experience of a loss due to SIDS.

Burns, House, and Ankenbauer (1986) have gone a step beyond the work of McCown and Pratt (1985). The influence of communication from parent to child was acknowledged, but questions arose as to the course of the grief reactions of children compared to that of adults. Information was gathered via questionnaire on 50 surviving siblings. The results indicated that 54% grieved longer than a year, and 40% grieved less than 6 months. These findings were thought to be consistent with the length of bereavement for adults. While many factors are likely involved in grieving behaviors --such as level of cognitive development--mourning in children may, to some extent, be a reflection of mourning in parents.

In summary, when SIDS strikes, the family is taken by surprise. The tragedy occurs with such abruptness and decisiveness that the parents often behave in a desperate fashion. Many have the inclination to substitute for the dead child, while others assign blame to the one who is left behind. In either case, the surviving siblings are forced to live in the shadows of the immortalized brother or sister and become vulnerable to the irrational or threatening behavior of the parents. Even in the best of situations, siblings are strongly influenced by the actions of the parents which--depending on the quality and quantity of communication--may create conditions that promote problems in regard to emotional development.

The aforementioned literature has provided a historical perspective on the topic of children's attitudes toward parental behavior. Regardless of the time period, and irrespective of the particular variables under study, children's perceptions of their parents may be considered to be both an interpersonal and intrapersonal phenomenon. The next section will take the same approach in a discussion of the presence of psychosomatic symptoms in children.

Presence of Psychosomatic Symptoms

One way to evaluate the emotional adjustment of children to the death of a brother or sister is to assess a variable that may be characterized as psychosocial--i.e.,

attitudes toward parental behavior. It can be enlightening, also, to check a variable that is psychophysiological in nature. Thus, the material that follows focuses on the presence of psychosomatic symptoms in children.

From its inception to approximately 1950, specificity was a major concern in the field of psychosomatic medicine. Investigators looked for cause-effect relationships between psychological difficulties and physical disorders, whether the psychological variables took the form of personality types (Dunbar, 1947), childhood experiences (Halladay, 1948), significant life situations (Alexander, 1950), or attitudes (Grace & Graham, 1952). Perhaps the psychoanalytic theories were most influential in explaining the genesis of somatic illness.

Nemiah (1982) cited a number of analysts who undertook formal study of their psychosomatic clients. They postulated that a process of conversion was at the core of the problem. Basically, it was their contention that " . . . unacceptable ideas and their associated affects and drives are excluded by repression from consciousness, the affective charge being converted into a somatic symptom whose form is determined by and symbolically represents the ideational component of the repressed mental elements" (Nemiah, 1982, p. 40). While conversion seemed to be at work in some patients, in others it was not evident. Alexander (1950), therefore, sought to distinguish

conversion hysteria from the psychosomatic condition of vegetative neurosis. Recognizing the superficial similarities of the two, Alexander (1950) differentiated between them on the issue of neuromuscular control. Hysterical conversion is restricted to the voluntary neuromuscular system, and vegetative neurosis is not under the control of the voluntary neuromuscular system. A vegetative symptom, then, does not take the place of the expression of emotion, but rather, is the attendant physiological response.

The hypothesis put forth by Ruesch (1948) was at direct odds with that of Alexander (1950). The proponent of the alternative approach held that all psychosomatic patients featured an infantile personality. These individuals manifested strong dependency needs, and had trouble communicating feelings and desires. Such characterological deficits led to a variety of somatic displays of emotional states, with no certain psychological factor corresponding to any particular physical ailment.

In summary, some combination of the psychoanalytic position discussed by Nemiah (1982) and Alexander (1950), and the social learning orientation advanced by Ruesch (1948), underlies the subsequent presentation of literature.

Siblings Healthy Children

Sperling (1978) examined the role of the mother in

producing psychosomatic disorders in children. In treating nearly two dozen youths with several kinds of psychosomatic complaints, it was determined that the mother had an " . . . unconscious need to keep the child in a helpless and dependent state . . . " (Sperling, 1978, p. 17). The child's reaction, also unconscious, was to obey the mother's subtle directive to get sick. A portion of the case of "John" serves to illustrate the point at hand:

John's mother presented the symptoms of chronic depression. She had severe difficulty in the handling of her two children. Her symptoms, which appeared in an acute episode after the birth of her first child, returned in a permanent form with the birth of John. She had not wanted another child so soon, but when she became pregnant accidentally two years after her first child's birth, she hoped at least that she would have a girl. In fact, she was prepared with a girl's name when she gave it to John and changed only in the second year of her analysis.

She found it difficult to care for John in his first year because she suffered from fatigue and severe migraine. John was a feeding problem and the older child whined and clung to her; both children constantly suffered from colds. At about two years of age, following a tonsillectomy, John

developed spells in which he behaved as if he were dazed and faint. She was advised to "slap him out" of these states and to pour cold water over him. She soon recognized, however, how badly John reacted to this treatment and discontinued it. By this time, John had developed attacks of bronchial asthma and had also become a behavior problem.

(Sperling, 1978, p. 38)

Thus, it appears that an unresolved conflict from the mother's past may enter into the present relationship with the child; a son or daughter may be responded to as if he or she was a despised sibling or parent, for example. The mother may project onto the child feelings and beliefs that she holds about herself, as well. For example, John was sick because his mother was sick. Also, the mother seeks to control her body and her illness by treating the child as if he/she were an appendage of herself. In addition to this psychoanalytic interpretation, the psychosomatic child may observe the role of the patient as portrayed by the mother, experience the consequences in a vicarious fashion, and begin to model the behaviors he sees. As the child puts into practice what he has learned, he/she is reinforced through primary and secondary gains. Such habits may continue indefinitely.

Barnes (1978) studied the responses of children and adolescents to the death of a parent or sibling. Often,

psychosomatic symptoms appeared when pediatric patients were unable to cope with the loss of a loved one. "Sophie," for instance, was 6 1/2 years old, and had a brother who died 4 years earlier. The boy was grossly defective and remained in the hospital all of his life. After her brother's death, Sophie was admitted to the hospital a number of times for dehydration caused by continuous vomiting. The pattern was such that the girl would recover and function well until she contracted a cold or another minor physical condition. Play therapy revealed aggressive fantasies Sophie held in regard to her brother. She resented his birth and wished him gone. There was also the magical thinking that she, in some way, brought about the boy's death. Threats to her health were perceived by Sophie as punishment by God for killing her brother.

Cain et al. (1964) discussed children's disturbed reactions to the death of a sibling. Aside from feeling responsible for the tragedy, they maintained misguided concepts of illness and death. The authors found children were perpetually concerned that ". . . coughs, colds, high temperatures and bruises led to death" (Cain et al., 1964, p. 746). Also, some were reluctant to eat because of their cognitive confusion concerning food, germs, and death.

To summarize, the preceding literature demonstrates that children can be influenced by a parent to show signs of psychosomatic disorders. Perhaps an unconscious mechanism

to please the parent for fear of the loss of love is at work here. Alternately, children may attempt to undo the death of a sibling by becoming sick themselves. At some level, the presence of psychosomatic symptoms in children who have had a brother or sister die may amount to punishment for having caused the death to happen.

Siblings of Leukemic Children

Binger (1973) reported on childhood leukemia and its emotional impact on siblings. In one study, more than half of the children under investigation manifested changes in behavior patterns. This, according to Binger (1973), was evidence of difficulty in dealing with death. Previously well-adjusted children began to show signs of decompensation during the course of the sibling's illness, but their symptoms became more pronounced following the death of a brother or sister. Their reactions included enuresis, headaches, persistent abdominal pains, severe anxieties, depression, school phobia, and poor academic performance.

In the case of "Jerry," (Binger, 1973) when he was 5, his 6-year-old sister was stricken with leukemia. The children were very fond of one another. Even though the parents did not reveal the severity of the disease to either Jerry or his sister, he became quite despondent during the 15 months preceding the death. Subsequent to the girl's death, the parents did tell Jerry that his sister had died

and had gone to heaven. The same evening that the parents delivered the news, Jerry developed a severe headache, though there were no outward signs of grief. Despite visits to physicians, neurological evaluations, and medications, the headaches persisted in follow-ups 3 years later.

Lascari and Stehbens (1973) studied the emotional difficulties experienced by families of leukemic children. A total of 20 sets of parents were interviewed to determine their perceptions of the effects of the disease and death. The analyses of parent reports indicated that 70% of the siblings were leading a normal lifestyle within a week of the loss. The parents did reveal, however, that their children had nightmares, mild depressions, enuresis, abdominal pain, and sleeping difficulties. A total of 17% of the siblings were affected in like fashion for 1 to 3 months, while another 8% of the siblings took as long as 6 months to a year to recover. The parents of a 5-year-old girl disclosed that their daughter was overly concerned about death, and was still frightened of doctors and hospitals 3 years after the loss of a sibling. In addition, there was an 8-year-old child who was hesitant to tell her parents when she was sick for fear of dying like her sister did. A psychological follow-up of these families found a similar pattern of grief symptomatology (Stehbens & Lascari, 1974).

Cassady (1982) explored the interpersonal perceptions

of healthy siblings of children with a life-threatening or chronic illness. She hypothesized that sick children may be afforded special status within their family, while healthy siblings may be deprived of parental support and suffer in terms of psychological development. Methodologically, three groups of 15 families each were selected and identified as having a child with leukemia, chronic bronchial asthma, or no chronic or life-threatening illness. The Conceptual Grid was administered to the healthy siblings in all three groups to gain an appreciation for their sense of distance or closeness to parents, brothers, and sisters. The subjects' parents completed the Children's Health Check-List for the purpose of gauging the frequency and number of psychosomatic complaints for each child.

The results substantiated the prediction that healthy children raised in families with a leukemic sibling experience a greater sense of isolation from both parents than children raised with an asthmatic or medically healthy sibling. The hypotheses regarding the healthy child's dependence upon outside significant people for a basis of emotional support, and the anticipated increase of psychosomatic complaints in healthy children with a leukemic or asthmatic sibling, were not confirmed by the findings.

Blinder (1972), in his article on sibling death in childhood, discussed a case report in which the older brother of a girl who died of leukemia developed persistent

somatic complaints. Within 45 minutes of his sister's death, Robert began to vomit and had diarrhea. By the day of the funeral, he had a complete loss of control of his bowels, and continued to vomit. Two years after Janie's death, Robert claimed to have blurred vision, pain in his arms and legs, headaches, and abdominal discomfort. All of these symptoms were unsubstantiated by repeated medical evaluations. His parents entered Robert in therapy, where the physical problems were interpreted as "attacks" (Blinder, 1972, p. 171), and connections were made between them and similar difficulties experienced by Janie. Cairns et al. (1974) found through administration of the Thematic Apperception Test that siblings, like their ill brothers and sisters, have significant anxiety and fear for their health.

Fife et al. (1987) reported that approximately 14% of parents scored moderate elevations on the Hypochondriasis scale of the MMPI 3 months after a child was diagnosed with leukemia. There was a slight increase for mothers several months later, while 43% of the fathers had a significant number of physical complaints. It may be postulated that there is an identification between the parents, siblings, and leukemic children, and that somatic defenses may be employed to limit the experience of disruptive affect.

Koocher (1986) pointed out that as individuals attempt to cope with a death from cancer, their reactions range along a continuum from the absence of any overt expression

of distress through uncomplicated bereavement to an emotional deterioration or a major depressive episode. Further, children exhibit a similar symptom picture as that of adults, including crying, loss of appetite, disturbed sleep, and hypochondriasis (Pollock, 1986). However, they are much more likely to display behavioral regressions, such as bowel and bladder problems. These responses have been linked to preoccupations with the dead sibling (Blinder, 1972; Elizur & Kaffman, 1983).

Sawyer, Crettenden, and Toogood (1986) examined the prevalence of emotional and behavioral problems in 42 children and adolescents who were being treated for leukemia. The psychological adjustment of siblings was also investigated. The Achenbach Child Behavior Checklist was completed by parents and teachers, and the Rutter B2 Behavioral Scale was checked by teachers only. The scores allowed for comparison between the leukemic group and the leukemic sibling group, using analyses of covariance to control for age and gender. The results showed that the leukemic group had a significantly greater number of behavioral problems, including somatic complaints. Further, an additional comparison between the leukemic sibling group and a control sibling group produced no significant differences for any of the measures.

In summary, leukemia is an illness that can linger on for many months before its victims die. Thus, the siblings

of leukemic children often compete for parental attention over a long period of time. They may learn from observation that to be sick is the way to meet their needs for intimacy and affection. The presence of psychosomatic symptoms for them may also be an indication of the degree of perceived neglect and isolation, and may serve as an unconscious defense mechanism employed to deal with depression and anxiety.

Siblings of SIDS Victims

The vast majority of literature related to the effects of SIDS upon family members has focused on the parents and their reactions. Williams and Nikolaisen (1982) addressed parents' perceptions of and responses to the loss of their infant. Aadalen (1980) offered intervention strategies for hospital personnel on how to work with bereaved parents. The surviving children, though, appear to be the most overlooked family members following the loss of a baby to SIDS. The few studies relevant to the grief experience of the siblings of SIDS victims are presented in this section.

In an article related to special aspects of primary care, Mandell and Belk (1977) alluded to the implications of SIDS on subsequent children. Through their personal contact with over 300 couples who had children die from SIDS, the authors indicated that the surviving siblings often become the replacements, and are overprotected from birth. In

their attempts to preserve the life of the newborn, the parents communicate their inordinate anxieties and fears. Inadvertently, they encourage helplessness and dependency from the children. Further, the parents model the behaviors their children can incorporate into a somatizing personality.

Krein (1979) suggested that surviving siblings react and grieve according to their developmental level. Children under 9 years of age do not comprehend the concept of reversibility and, hence, view death as a temporary state of affairs. Because youths at this stage feel guilty and responsible for the baby's disappearance, they may have difficulty sleeping for fear of disappearing themselves.

Children of 5 years or less do not have a clear understanding of their parents' behavior during the mourning process (Krein, 1979). They may interpret the parents' preoccupation with grief as a withdrawal of love from them. They may recall the attention given them in the past for a sick stomach, for example, and resort to such complaints as a means to an end.

When children reach the age of 9 or 10, they have a grasp of the meaning of death. At this age, they can verbalize their thoughts and feelings in this regard, as well. They may, however, exhibit signs of distress, such as bedwetting and nightmares. These may be considered the behavioral expressions of a repressed emotion (Krein, 1979).

Williams (1981) reported that siblings' reactions to SIDS often involved feelings of guilt, anger, anxiety, and sadness, which were then expressed through a variety of behavioral and physical symptoms. For example, in the weeks following the death of a baby brother or sister, siblings less than the age of 6 were very concerned for themselves and their parents if either became sick. Anxiety was also noted when they went to bed to sleep. Specific somatic complaints included asthma, vomiting, and abdominal pains. With the 6- to 9-year-old group, fears of the dark and of ghosts were quite common, along with nightmares, bedwetting, and vomiting. Children 10 years and older had many grief reactions that were similar to those of adults, though asthma and abdominal pain continued to plague them.

Mandell et al. (1983) looked at loss due to SIDS and its impact upon older siblings. A total of 26 families that had sustained the sudden death of an infant were interviewed in a structured manner. The authors sought information concerning changes in patterns of sleep, toilet training, feeding habits, peer relationships, and parent-child interaction. In terms of parent-child relations, 80% of the mothers saw changes in the child's interaction with them. The authors intimated that the parents may have been projecting their own needs to take care of the surviving child. A total of 69% of the children changed in their sleeping habits: they did not want to go to bed and to

sleep. Some slept, but were disturbed by nightmares. While certain new behaviors were noticed within a few days of death, 3 children had no problems until after 2 months. Some disruptions in sleep lasted for 2 months for 2 children, 3 to 6 months in 5 children, 6 to 8 months in 4 children, 1 year in 4 children, and continued to be problematic 1 year later for 4 children. Changes in social interaction ranged from reserve and withdrawal to outright aggression. Nearly all of the 35 children had not been toilet trained at the time of the unexpected death. Regressions were minimal and concentrated in the 4- to 6-year-old group. Enuresis and nocturesis were noted. Finally, about 33% of all children had a lack of appetite in the wake of the death.

Price et al. (1985) were interested in the emotional impact of SIDS on mothers. On a symptom checklist consisting of 17 items, the majority of mothers claimed to have experienced 16 of them to a significant degree just after the death of their infant. The results also indicated that the mothers' grief may be more extensive than has been thought to be the case. A total of 56% of the mothers had a sleep disturbance, 41% had a loss of appetite, 39% had a loss of energy, and 33% had various physical pains. Most of these mothers further reported an increase in emotional closeness to the surviving children. Although this particular study did not speculate as to the sequelae for

the siblings in terms of exhibiting psychosomatic symptoms, the likelihood seems high given the aforementioned data on mothers, and keeping in mind the perceived improvement in relationships between mothers and surviving children.

McCown and Pratt (1985) investigated children's responses to the death of a sibling from a variety of causes including SIDS. The Child Behavior Check-List was utilized, which measures problem behaviors such as hyperactivity, running away, and somatic complaints. Analysis of the data by way of a t-test indicated that children who had lost a sibling displayed significantly more behavior problems than the normative group. However, the authors did not parcel out which of the behaviors were contributing most to this finding. Somatic complaints have often been associated with the bereaved, and may have been operative in this study as well.

Burns et al. (1986) looked at sibling grief in response to SIDS. The primary focus, however, was on the time frame of bereavement for these children. It was found that 54% of the children showed grieving behaviors for more than a year after the death of a sibling due to SIDS. While the authors acknowledged previous research that documented psychosomatic symptoms as being characteristic of the grief process, and included a questionnaire in their study designed to measure behaviors such as sleep difficulties and illnesses, they failed to report on their frequency. Again, the presence of

psychosomatic symptoms may be presumed to have influenced the results.

In summary, the foregoing literature suggested that sibling grief is likely a function of the survivors' developmental level and their modeling of parental behaviors. Children's reactions to the loss of a brother or sister may also be motivated by an unconscious emotional conflict which is then manifest through somatic defenses. The exact form that the grief will take is difficult to predict, although the siblings often exhibit gastrointestinal problems, enuresis, sleep disorders, and diminished appetite subsequent to a SIDS death.

Summary

The literature presented in this chapter concentrated on two variables--i.e., children's attitudes toward parental behavior, and the presence of psychosomatic symptoms in children--that are intricately intertwined with emotional adjustment. The death of a sister or brother during the first 10 years of life may have disastrous effects upon the psychological well-being of children and may be inferred from problems with parents and health. Past research has suggested that siblings of leukemia and SIDS victims have difficulty interpersonally and intrapersonally. There have been no studies to date, however, that have compared the two groups with regard to attitudes toward parental behavior and

the presence of psychosomatic symptoms. The current investigation was conducted with this purpose in mind.

CHAPTER III

METHODOLOGY

The purpose of the present study was to examine children's attitudes toward parental behavior, and to document the presence of psychosomatic symptoms in children. This chapter begins with a description of subjects and instrumentation. Explanations of the procedures, research design, and statistical analysis are also included.

Subjects

A total of 83 boys and girls were selected as subjects for this study and were grouped as follows: a) 31 siblings of healthy children; b) 25 siblings of leukemia victims; and c) 27 siblings of SIDS victims. This number of subjects meets the required sample size for power = .80, for a significance level of .05 with a large effect size (Cohen, 1969).

Information obtained from the demographics questionnaire (See Appendix A) revealed that 63% the subjects were boys and 37% were girls (See Table 1). The subjects ranged in age from 5 to 15, with a mean age of 7.2 years. Forty-nine percent reported, or were reported to have no health problems, 40% had one health problem, and 11%

had two health problems.

The mother of each child also was asked to participate (See Table 2). Mothers' ages ranged from 27 to 40, with most mothers being either 34 or 35. Thirty-one percent were homemakers, while 69% worked out of the home. Few health problems were reported, with 61% having no problems and 39% having one problem.

Information obtained in regard to fathers indicated that they were from 27 to 43 years old, the majority being 38 (See Table 2). All fathers were employed, with approximately 43% being professionals. Seventy-two percent claimed no health problems, while 23% had one problem and 5% had two problems.

The control group was composed of 31 volunteer families who had placed children at a day care center in a large, southwestern city over the past 5 years. This group contained subjects who either had been placed at the daycare center themselves, or who had siblings placed at the daycare center at some point in time. The 31 volunteer families were randomly drawn from 42 available families. This sample represented 73.8% of the accessible population. All subjects were healthy children from families with no history of terminal illness or SIDS. They came from two-parent families, each having between one and three children.

Sixty-one percent of the subjects in the control group were boys and 39% were girls (See Table 3). Their ages were

Table 1

Demographic Data for Surviving Siblings

	Gender		Range	Age Mean	Age at death of sibling		Health problems		
	Male	Female			0-5 yrs.	6-10 yrs.	0	1	2
	Siblings	63%			37%	5-15 yrs.	9.5 yrs.	52%	48%

Table 2

Demographic Data for Parents of Surviving Siblings

	Age range	Employed out of home	Health problems		
			0	1	2
Mothers	27 - 40 yrs.	69%	61%	39%	0%
Fathers	27 - 43 yrs.	100%	72%	23%	5%

Table 3

Demographic Data for Each Group of Siblings

	Gender		Age		Health problems		
	Male	Female	Range	Mean	0	1	2
Siblings of healthy children	61%	39%	5 - 15 yrs.	9.7 yrs.	58%	26%	16%
Siblings of leukemia victims	68%	32%	5 - 15 yrs.	9.5 yrs.	36%	52%	12%
Siblings of SIDS victims	59%	41%	5 - 14 yrs.	9.4 yrs.	52%	44%	4%

from 5 to 15 years, the greatest percentage being 7, 8, and 9 years old. Fifty-eight percent had no health problems, 26% had one health problem, and 16% had two health problems.

Mothers of children in the control group were between 27 and 38 years of age, the highest percentage being 34 years old. Sixteen percent were homemakers, while 45% held jobs as salespersons or office workers, and 32% were professionals. In reporting health problems, 65% had none, and 35% identified one.

Fathers' ages ranged from 27 to 41, with a large percentage being 33 and 38. Nearly 39% had professional jobs. Seventy-seven percent reported no health problems, and 23% claimed one health problem.

During a 3-year period (1983-1985), hundreds of families had children admitted to a hospital in the same southwestern city who died of leukemia. The children used in this study came from 25 volunteer families who were randomly chosen from 34 available families. This sample represented 73.5% of the accessible population. Each had two living parents and no more than three children. Sixty-eight percent of the children were boys and 32% were girls (See Table 3). Their ages ranged from 5 to 15, with the largest percentage being both 7 and 11 years of age. Thirty-six percent had no health problems, 52% had one health problem, and 12% had two health problems.

The mothers in the leukemia group were between 27 and

40 years of age. Most mothers were 35 years old. Thirty-six percent were homemakers, and 32% held sales positions or worked in offices. Regarding health problems, 68% reported none, while 32% had one.

Fathers were 28 to 42 years old, with a mode of 38. Forty-eight percent worked as professionals. Seventy-six percent claimed to have no health problems, and 24% admitted to one health problem.

The Medical Examiner's Office in the same city comes in contact with approximately 75 families each year who have lost a child to SIDS. Of the families who experienced a loss in the past 10 years, volunteers were sought to take part in this study. A sample of 27 volunteer families with a history of SIDS was chosen from 36 available families. This sample represented 75% of the accessible population. All were two-parent families, each being composed of between one and three children.

Fifty-nine percent of the children in the SIDS group were boys and 41% were girls (See Table 3). They ranged in age from 5 to 14, with most children being 8 years old. With regard to health problems, 52% had no problems, 44% had one problem, and 4% had two problems.

The mothers of the SIDS group were from 27 to 38 years old, most being 35 years of age. Forty-four percent were homemakers, and 30% worked as salespersons or in office settings. Fifty-two percent had no health problems, while

48% had one health problem.

The fathers of the SIDS group were between 28 and 43 years of age, with the most frequent ages being 38 and 40. Approximately 44% worked as professionals. Sixty-three percent had no health problems, 22% had one health problem, and 15% had two health problems.

Instrumentation

The Cornell Parent Behavior Description (CPBD) (Devereux et al., 1969) was used as one of the instruments for this study (See Appendix B). The questionnaire measures the child's perceptions of how the parents have behaved toward him/her during the past year. It is composed of 30 items, to which the child responds in a Likert-type fashion (i.e., 1 = never, 2 = hardly ever, 3 = sometimes, 4 = fairly often, 5 = very often). Sample items include: When she punishes me, she explains; She cannot bring herself to punish me; She acts cold and unfriendly, if I do something she doesn't like. Spearman-Brown estimates of reliability were .59 for both mothers and fathers. The CPBD was modified when appropriate to be consistent with the developmental-cognitive level of children less than 8 years of age (See Appendix C). This was done by having the instrument checked by an expert in the field of Reading to determine readability level. Fry's formula was applied to the test items, and the instrument was found to have a

third-grade reading level. In order to lower the readability level so that items could be understood by younger children, the expert suggested that the ordering of words in certain test items be changed (for example, She acts cold and unfriendly, if I do something she doesn't like, changed to, If I do something she doesn't like, she acts cold and unfriendly). The expert also indicated that readability could be lowered by changing the difficulty of some words (for example, She expects me to keep my things in good order, changed to, She wants me to keep my things in their place). Reliability for the instrument using the current data was established by applying Cronbach's Alpha. The resultant internal consistency reliability coefficient for the total scale was .64.

The Children's Health Check-List (CHCL) (Cassady, 1982) measures the number of physical complaints of children noted by parents. It consists of a list of physical problems (for example, headaches, nosebleeds, chest pains, upset stomach, enuresis, and tiredness) that may have been reported by children to mothers in the past 3 months. The dependent variable was the sum of symptoms checked by mothers. Internal consistency reliability, using Cronbach's Alpha, was .57 (Cassady, 1982).

Procedures

During the summer of 1986, administrative personnel at

a daycare center, a hospital, and the medical examiner's office were contacted to discuss the possibility of conducting this study with families from their files. After receiving approval from each, lists of prospective participants were provided. There were 83 potential control group families, 94 potential leukemia group families, and 64 potential SIDS group families. For logistical reasons (for example, distance to their homes), the names of a number of families were removed from the lists. Several were one-parent families and were deleted as this factor was contrary to a limitation of the study.

In August of 1986, a consent form describing the nature of the current study was mailed to 55 families of healthy children, 55 families of leukemia victims, and 55 families of SIDS victims (See Appendix D). The correspondence solicited participation, and assured parents of confidentiality and their right to withdraw at any time. The author offered to explain the results after final analyses of the data. The return envelopes were marked at the top to designate whether potential subjects were in the control group, leukemia group, or SIDS group. One hundred twenty-four envelopes were returned, some of which had forms that were partially completed or had not been completed at all. One hundred twelve viable subjects remained with 42 control group families, 34 leukemia group families, and 36 SIDS group families. Random numbers were assigned to each,

and a systematic sampling procedure was employed to include approximately 75% of the accessible populations. This was done for practical reasons, such as the expenditure of time and money traveling to and from volunteers' homes. Thirty-one control group families, 25 leukemia families, and 27 SIDS families remained.

Beginning in October, 1986, the CHCL and the demographics questionnaire were mailed to the families sampled for participation. The CHCL asked that the parents mark the number of somatic complaints voiced by children in the past 3 months. A note accompanying the instrument requested the parents to return the completed forms within two weeks from the date of receipt. The experimenter placed phone calls to parents who had not responded by this time. After the parents returned the forms, appointments were scheduled to administer the CPBD to individual children. When testing was concluded, the parents were reminded of confidentiality and the availability of the final research results.

Research Design

A causal comparative method was employed as the research design for exploring relationships among the chosen variables. This technique allowed for the comparison of groups that differ on critical factors but are otherwise alike. In addition, the causal comparative method may be

used to search for the effects of observed differences between groups. Interpretations of causal comparative findings was limited, however, because it was not known whether the variables were true causes of the behaviors under investigation.

For this study, experience with sibling death served as the independent measure. There were three levels of this variable: a) Siblings of healthy children; b) Siblings of leukemia victims; and c) Siblings of SIDS victims. There were two dependent variables: a) Children's attitudes toward parental behavior (assessed by way of the CPBD), and b) The presence of psychosomatic symptoms (assessed by way of the CHCL) (See Figure 1).

Statistical Analysis

Analysis of the data in this causal comparative research began with computation of descriptive statistics for each comparison group, including the group mean and the standard deviation for dependent measures. A one-way multivariate analysis of variance (MANOVA) was utilized as the test of statistical significance. The fixed independent variable was experience with sibling death, and the dependent variables were attitudes toward parental behavior, and the presence of psychosomatic symptoms. The MANOVA was based on the following assumptions:

1. Random sample;

Figure 1. The research design.

<u>Groups</u>	<u>N</u>	<u>Experience with Death</u>	<u>Test 1</u>	<u>Test 2</u>
1	31	No Death	CHCL	CPBD
2	25	Leukemia	CHCL	CPBD
3	27	SIDS	CHCL	CPBD

2. Multivariate normal distribution;
3. All levels of the independent variable were independent;
4. Variance/covariance was the same for all independent levels;
5. Dependent variables were correlated.

An alpha level = .05 was set to examine relationships among variables, and to reject the null hypotheses when there were measured differences. Because the error correlation value between attitudes toward parental behavior and the presence of psychosomatic symptoms was less than .3, univariate analyses for significance ensued. Simple contrasts and Helmert contrasts were employed as post hoc measures. Univariate strength of association was found when appropriate.

CHAPTER IV

RESULTS

The present study was conducted in order to measure attitudes toward parental behavior and the presence of psychosomatic symptoms in three groups of children. Means and standard deviations of the dependent variables for all levels of the independent variable are presented in Table 4. A one-way multivariate analysis of variance (MANOVA) was used as the test of statistical significance. Univariate analyses, simple contrasts, Helmert contrasts, and strength of association statistics were also computed.

Inspection of the error correlation matrix indicated a low relationship between the two dependent variables, hence there was no need to use the multivariate F value (See Table 5). Univariate F -tests were checked for each dependent variable (See Table 6). The data revealed a significant main effect for attitudes toward parental behavior, $F(2, 80) = 57.41, p < .05$. Post hoc contrasts (See Table 7) showed that siblings of healthy children ($\bar{X} = 111.74$) maintained attitudes toward parental behavior that were significantly more positive in nature than those of either siblings of leukemia victims ($\bar{X} = 101.24$) or siblings of SIDS victims ($\bar{X} = 100.11$). There also was a significant difference noted

Table 4

Means and Standard Deviations for All Levels of Experience
with Sibling Death by Each Dependent Variable

	Control (N = 31)	Leukemia (N = 25)	SIDS (N = 27)
Attitudes toward parental behavior	$\bar{X} = 111.74$ $\underline{sd} = 3.63$	$\bar{X} = 101.24$ $\underline{sd} = 5.07$	$\bar{X} = 100.11$ $\underline{sd} = 5.04$
Presence of psychosomatic symptoms	$\bar{X} = 32.16$ $\underline{sd} = 2.22$	$\bar{X} = 32.40$ $\underline{sd} = 2.04$	$\bar{X} = 33.77$ $\underline{sd} = 2.51$

Table 5

Error Correlation Matrix

	Attitudes toward parental behavior	Presence of psychosomatic symptoms
Attitudes toward parental behavior	4.57 ^a	
Presence of psychosomatic symptoms	-.13 ^b	2.27 ^a

a = average standard deviations

b = correlation of the error terms

Table 6

Analysis of Variance

	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Attitudes toward parental behavior				
Experience	2,404.35	2	1,094.28	57.41*
Error	1,675.16	80	20.85	
Presence of psychosomatic symptoms				
Experience	42.32	2	21.16	4.10*
Error	412.86	80	5.16	

* $p < .05$.

Table 7

Post hoc Contrasts for Attitudes Toward Parental Behavior

	Siblings of healthy children	Siblings of leukemia victims	Siblings of SIDS victims	Siblings of Sibling death ^a
Means	111.74	101.24	100.11	100.67
Siblings of healthy children	—			
Siblings of leukemia victims	*	—		
Siblings of SIDS victims	*	NS	—	
Siblings of Sibling death ^a	*	NS	NS	—

a = average value for both leukemia and SIDS groups

* = significant at .05 level

NS = non-significant at .05 level

in the same direction between siblings of healthy children ($\bar{X} = 111.74$) and siblings of unhealthy children ($\bar{X} = 100.67$). Post hoc contrasts indicated no significant difference between the leukemia group ($\bar{X} = 101.24$) and the SIDS group ($\bar{X} = 100.11$). Strength of association using omega-squared indicated that 58% of the variability in the subjects' perceptions of their parents' behavior may be related to experience with sibling death.

The univariate tests supported a significant main effect for the presence of psychosomatic symptoms, $F(2, 80) = 4.10$, $p < .05$. Post hoc contrasts (See Table 8) of the means suggested that siblings of SIDS victims ($\bar{X} = 33.77$) had significantly more psychosomatic symptoms than siblings of healthy children ($\bar{X} = 32.16$). No significant differences were noted between siblings of healthy children ($\bar{X} = 32.16$) and siblings of leukemia victims ($\bar{X} = 32.40$), or siblings of leukemia victims ($\bar{X} = 32.40$) and siblings of SIDS victims ($\bar{X} = 33.77$). Further, there was no significant difference between siblings of healthy children ($\bar{X} = 32.16$) and siblings of unhealthy children as a group ($\bar{X} = 33.08$). The strength of association measure indicated that 9% of the variability in mothers' reports of children's physical complaints may be related to experience with sibling death.

In summary, the findings for hypotheses listed in Chapter I were as follows:

Hypothesis I: There will be no significant difference

Table 8

Post hoc Contrasts for Presence of Psychosomatic Symptoms

	Siblings of healthy children	Siblings of leukemia victims	Siblings of SIDS victims	Siblings of Sibling death ^a
Means	32.16	32.40	33.77	33.08
Siblings of healthy children	—			
Siblings of leukemia victims	NS	—		
Siblings of SIDS victims	*	NS	—	
Siblings of Sibling death ^a	NS	NS	NS	—

a = average value for both leukemia and SIDS groups

* = significant at .05 level

NS = non-significant at .05 level

between siblings of healthy children, siblings of leukemia victims, and siblings of SIDS victims in terms of attitudes toward parental behavior. The results of the statistical analyses indicated a significant main effect for attitudes toward parental behavior, $F(2, 80) = 57.41, p = <.05$. Siblings of healthy children rated their parents more positively than either siblings of leukemia victims or SIDS victims. In addition, the attitudes of siblings of healthy children were significantly more favorable than those of siblings of unhealthy children as a group. There was no significant difference between siblings of leukemia victims and siblings of SIDS victims. Therefore, the null hypothesis was rejected at the .05 level.

Hypothesis II: There will be no significant difference between siblings of healthy children, siblings of leukemia victims, and siblings of SIDS victims with respect to the presence of psychosomatic symptoms. The data revealed a significant main effect for the presence of psychosomatic symptoms, $F(2, 80) = 4.10, p < .05$. Siblings of SIDS victims were reported by their mothers to have significantly more psychosomatic symptoms than siblings of healthy children. There were no significant differences between siblings of healthy children and siblings of leukemia victims, or siblings of leukemia victims and siblings of SIDS victims. In addition, there was no significant difference between siblings of healthy children and siblings

of unhealthy children as a group. Thus, the null hypothesis was rejected at the .05 level

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate two variables thought to be related to the emotional adjustment of three groups of children who differed in their experience with sibling death. More specifically, siblings of healthy children, siblings of leukemia victims, and siblings of SIDS victims were compared in regard to attitudes toward parental behavior and the presence of psychosomatic symptoms. A total of 83 boys and girls served as subjects for this research and were grouped as follows: a) 31 siblings of healthy children; b) 25 siblings of leukemia victims; and c) 27 siblings of SIDS victims. The mother of each child was also asked to participate. The Cornell Parent Behavior Description (CPBD) (Devereux et al., 1969) was administered to evaluate children's attitudes toward parental behavior, and the Children's Health Check-List (CHCL) (Cassady, 1982) was utilized to assess the presence of psychosomatic symptoms. A one-way multivariate analysis of variance (MANOVA) was employed as the test of statistical significance, along with univariate analyses, simple

contrasts, Helmert contrasts, and strength of association measures. The results indicated a significant main effect for attitudes toward parental behavior. Siblings of healthy children rated their parents more favorably than siblings of either leukemia victims or SIDS victims. Further, siblings of healthy children held attitudes toward parental behavior that were significantly more favorable than those of siblings of unhealthy children as a group. There was no significant difference between siblings of leukemia victims and siblings of SIDS victims. The results also revealed a significant main effect for the presence of psychosomatic symptoms. Siblings of SIDS victims were reported to have significantly more psychosomatic symptoms than siblings of healthy children. Siblings of leukemia victims did not differ significantly from siblings of healthy children, nor did siblings of leukemia victims differ significantly from siblings of SIDS victims. Further, there was no significant difference between siblings of healthy children and siblings of unhealthy children as a group.

Conclusions

There are two basic conclusions that may be drawn from the results of this study, which relate directly to the hypotheses stated in Chapter I:

1. A significant main effect was found for attitudes toward parental behavior. Upon closer inspection, this main

effect was largely due to siblings of healthy children perceiving parental behavior more favorably than either the siblings of leukemia victims or the siblings of SIDS victims. The post hoc strength of association value suggested that the aforementioned difference between groups was very likely related to children's experience with sibling death. How, then, have the experiences of siblings of leukemia victims and SIDS victims deviated from those of siblings of healthy children? The most obvious difference is that they have lost a brother or sister, and those in the control group have not. Bank and Kahn (1982, p. 271) have stated that ". . . death ends only a life: it does not end a relationship." The extent and quality of the pre-existing relationship thus have a tremendous impact on the surviving siblings and color their reactions to death.

Another variable that may have influenced the results is the age of the siblings at the time of death. Sixteen percent of the leukemia group and 52% of the SIDS group were 5 years old or younger when a brother or sister died. Seventy-two percent of the leukemia group and 48% of the SIDS group were between 5 and 10 years of age. These data are important for the reason that many of the subjects may not have progressed developmentally to a point that a full understanding of death would be expected. Children under 2 years old appear to have no concept of death, although they take note of the absence of a significant other and react to

this (Nagy, 1948). Children who are between the ages of 2 and 5 typically view death as a transient state with little appreciation for the permanence of it. Five-year-old children begin to have some vague ideas about the permanence of death but do not grasp the fact that everyone dies. In order to comprehend the finality, irreversibility, and universality of death, children must be approximately 9 or 10.

Given that a large number of the subjects may not have developed a clear understanding of the concept of death by the time the loss occurred, they likely have had difficulty accommodating to their parents' behavior in the aftermath. Wold and Townes (1969) have indicated that parental communication was one of the central factors determining the adequacy of adjustment of surviving siblings. Williams (1981), however, found that in the months following the death of a child, parental communication with the remaining children was limited, particularly with those less than 10 years of age. Information that was provided tended to be superficial and incomplete. The combination of an immature developmental/cognitive level and a lack of verbal communication from the mother may have caused confusion on the part of the siblings in the treatment groups and led them to formulate attitudes toward parental behavior that were not as favorable as those voiced by the control group.

Communication has both verbal and non-verbal elements,

with the latter possibly having the greatest impact upon individuals receiving a message. Throughout the review of literature, references were made to parental bereavement and the forms that this may take. Fife et al. (1987), for example, noted that mothers' grief was often associated with clinical depression. Some of the signs of depression include a diminished energy level, withdrawal, and appetite and sleep disturbances. Assuming that depression was a mitigating factor in this study, children observing their mother's lowered energy level and withdrawal, for instance, may have personalized these behaviors and, in turn, felt abandoned by their parent. This process may have created conditions in which the surviving siblings became depressed themselves and began to see their parents in a negative light.

The grief reactions of parents typically include both verbal and non-verbal communications. Tooley (1975) has suggested that parents sometimes scapegoat the remaining children in an effort to alleviate their own anger and guilt. In such a situation, the siblings sometimes become objects of displacement and must contend with verbal blows and sadistic behaviors that challenge their self-esteem. Occasionally, parents seek to replace the dead child with surviving siblings (Cain & Cain, 1964). In this case, they seem to be narcissistic extensions of the parents and must live up to explicit and implicit expectations. Scapegoating

and replacing would both seem to be distancing phenomena, and as Price et al. (1985) have found, children respond more positively when parents make attempts to foster a sense of closeness in the family. These processes may have been at work in the current study, and if so, may have motivated the siblings of leukemia and SIDS victims to rate their parents more harshly than siblings of healthy children.

2. As mentioned at the start of this chapter, the results revealed a significant main effect for the presence of psychosomatic symptoms. Siblings of SIDS victims were reported to have significantly more physical complaints than siblings of healthy children. The strength of association value was too small to make a definitive statement regarding the results being due to the subjects' experience with sibling death. It may be speculated, however, that the tragedy of losing a brother or sister gave rise to negative affect in the sibling survivors as evidenced by depression and anxiety. These children then may have employed unconscious defense mechanisms to help reduce the tension that developed from the build-up of these emotions. Somatization allowed for the indirect expression of their underlying feelings, and thus served to dissipate psychic tension. The particular kind of physical complaints may be related to psychosexual development, such that children who were more orally fixated may have had more difficulties with the teeth, mouth, and weight, while others who were more

anally organized may have had more gastrointestinal problems. Looked at psychodynamically, the presence of psychosomatic symptoms in siblings of unhealthy children also may have constituted some sort of self-punishment for having had aggressive impulses (due to sibling rivalry, for example) toward the dead child.

The fact that siblings of SIDS victims had significantly more psychosomatic symptoms than the control group also may be attributable to a modeling effect. While 64.5% of the control group mothers claimed to have no health problems and 35.5% had one health problem, 51.9% of mothers of SIDS victims reported no health problems and 48.1% had one health problem. Perhaps the sibling survivors of the SIDS victims observed illnesses in their mothers, unconsciously identified with them, and began to display symptoms themselves. Further, the remaining children may have complied with an unconscious wish that they become sick so that their mothers could undo their guilt over death by taking care of them (Sperling, 1978). Alternatively, if the mothers' health problems were such that they were significantly depressed or otherwise emotionally unavailable to the children, physical symptoms may have evolved from a secondary depression (i.e., depression that has developed more from the perceived loss of the mother and/or her love than from the actual death of a sibling). A secondary depression may have resulted from the surviving children

being treated as scapegoats or replacement children. Psychosomatic symptoms may have been presented in response to physical and/or emotional abuse, as well as to the frustration of failing to meet the unrealistic expectations of parents.

Recommendations for Future Research

To date, the major thrust of research has been to investigate the reactions of parents to the loss of a child and the response of children to the death of a parent. This study was a beginning attempt not only to examine certain aspects of sibling grief, but to compare one condition in which death comes after months or years of illness with another condition in which there is no time to prepare for death. Recommendations for future research are as follows:

1. Increase the sample sizes to improve reliability and to allow for stratification of groups.
2. Stratify samples by developmental-cognitive level to check on differences within groups.
3. Add a group of siblings of accident victims, as death is often attributed to an external force in this case.
4. Include fathers as well as mothers so as to permit contrasts by gender.
5. Use parents' previous experience with death as a covariate and look at differences in dependent measures.
6. Utilize dependent variables that have a strong

positive correlation to be consistent with the assumptions of MANOVA.

7. Employ instruments that have been normed on the populations from which the samples are drawn so that inferences can be made about the populations.

Recommendations for Practice

Based on material from the preceding review of literature and conclusions that were drawn from the current study, the following recommendations for practice are made:

1. Psychologists (i.e., counseling and clinical) need to be well-versed in developmental psychology (e.g., with attachment and separation theory, and with the concepts of egocentricity and magical thinking) in order to have a full understanding of the meanings that children of different cognitive levels may give to the sickness or loss of a sibling.

2. Psychologists are encouraged to complete grief therapy training so as to be aware of personal issues that may influence their work with the bereaved.

3. Psychologists, as members of interdisciplinary treatment teams, should make contact with leukemic families who express an interest at the time of diagnosis, and make themselves available for therapy throughout the period of illness and subsequent to the death of the child.

4. Psychologists may serve as consultants to their

local Medical Examiner's Office to follow-up with families who have experienced a loss due to SIDS and who wish to be involved in therapy.

5. Psychologists must be sensitive to the signs of unresolved grief in surviving siblings. In addition to the characteristic signs of depression and anxiety, these children will likely maintain attitudes toward parental behavior that are harsher than those of siblings of healthy children. Further, the surviving siblings may exhibit more psychosomatic symptoms than siblings of healthy children.

6. Psychologists ought to tailor their intervention methods to the cognitive capabilities of the bereaved children. It will be particularly important for the psychologist to provide play materials for children less than 10 years of age so that they may communicate their feelings more readily as they relate to the ill or dead sibling.

7. Psychologists may recommend individual therapy for the surviving siblings prior to the start of family therapy. In this way, the children can disclose their feelings more freely concerning themselves, the ill or dead child, and their parents. Individual or conjoint therapy may be indicated for the parents at this time as well.

8. Psychologists also must have an appreciation for family systems theory and how the family constellation may be affected by the therapeutic process. It is incumbent

upon the psychologist to anticipate changes and forewarn family members.

9. Psychologists are urged to take a lead in grief work with surviving siblings and their families. These professionals are often the best prepared in terms of diagnostic and therapeutic skills.

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APPENDIXES

APPENDIX A
DEMOGRAPHICS QUESTIONNAIRE

Demographics Questionnaire

Child's Name: _____

Date of Birth: _____

Place of Birth: _____

Race: _____

Age at Death of Sibling (years): _____

Sibling's Gender: _____

Older/Younger: _____

Age at Death (months): _____

Time since Death (years): _____

Father's Age: _____

Occupational Level: _____

- | | |
|-----------------|----------------------|
| 1 = unemployed | 6 = sales/bookkeeper |
| 2 = unskilled | 7 = owner |
| 3 = semiskilled | 8 = professional |
| 4 = service | 9 = executive |
| 5 = skilled | 10 = doctor/lawyer |

Educational Level: _____

- 1 = elementary school
- 2 = partially completed high school
- 3 = high school graduate
- 4 = technical
- 5 = partially completed college
- 6 = college graduate
- 7 = completed graduate school

Mother's Age: _____

Occupational Level: _____

- | | |
|-----------------|----------------------|
| 1 = unemployed | 6 = sales/bookkeeper |
| 2 = unskilled | 7 = owner |
| 3 = semiskilled | 8 = professional |
| 4 = service | 9 = executive |
| 5 = skilled | 10 = doctor/lawyer |

Educational Level: _____

- 1 = elementary school
- 2 = partially completed high school
- 3 = high school graduate
- 4 = technical
- 5 = partially completed college
- 6 = college graduate
- 7 = completed graduate school

Income Level:

- | | |
|-----------------------|-----------------------|
| ___ Below \$12,000 | ___ \$25,000-\$50,000 |
| ___ \$12,000-\$18,000 | ___ Above \$50,000 |
| ___ \$18,000-\$25,000 | |

Religious Preference: _____

- | | |
|----------------|------------|
| 1 = Protestant | 5 = Hindu |
| 2 = Catholic | 6 = Muslim |
| 3 = Jewish | 7 = none |
| 4 = Buddhist | |

Parent Health:

Poor	-->	Fair	-->	OK	-->	Good	-->	Excellent
1	2	3	4	5	6	7	8	9

Father's Health (number of problems): _____

Mother's Health (number of problems): _____

Child's Health (number of problems): _____

Number of Siblings: _____

Gender of Each: _____

Age(s): _____

Education Level(s): _____

1 = kindergarten

2 = elementary school

3 = partially completed high school

4 = high school graduate

5 = partially completed college

6 = college graduate

7 = completed graduate school

8 = not in school

APPENDIX B
CORNELL PARENT BEHAVIOR DESCRIPTION

Cornell Parent Behavior Description

Mother*

Here are some descriptions of the kinds of things mothers do. Read each statement below and make a check mark above the answer which best describes your mother as she has been during the past year. Be sure to answer every statement. Please do not leave any out. Remember, you are describing your mother as she has been just during the past year.

If a woman who is not your mother has taken your real mother's place during most of the last year, put check marks for the answers which best describe that person. If you have not lived with either your own mother or someone taking her place for most of the last year, leave these questions blank.

If you have any questions, please raise your hand.

1. She expects me to keep my things in good order.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

2. She won't have anything to do with me for a while, if I do something she doesn't like.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

3. She teaches me things I want to learn.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

4. She lets me off easy when I do something she doesn't like.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

*Wording is the same for father. Only the appropriate pronouns are changed.

5. She worries that I cannot take care of myself.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

6. She scolds me if I do something wrong.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

7. When she punishes me, she explains why.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

8. She says she will hit me or smack me, if I do something she doesn't like.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

9. She makes me feel she is there if I need her.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

10. She keeps after me to do well in school.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

11. She won't let me do things with my friends, when I have done something she doesn't like.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

12. She slaps me.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

13. She lets me make my own plans for things I want to do.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

14. I know what she expects of me and how she wants me to act.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

15. She says nice things about me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

16. She acts cold and unfriendly, if I do something she doesn't like.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

17. She cannot bring herself to punish me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

18. She helps me with my school work, if there is something I don't understand.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

19. She lets me decide things for myself.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

20. When I do something she doesn't like, I know exactly what to expect of her.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

21. She spans me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

22. She expects me to help around the house or yard.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

23. She bawls me out if I do something she doesn't like.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

24. When she wants me to do something, she explains why.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

25. She is very strict toward me, if I don't do what is expected of me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

26. I count on her to help me out if I have some kind of problem.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

27. She punishes me by not letting me use my favorite things for awhile.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

28. She keeps pushing me to do my best in whatever I do.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

29. She won't let me go places because something might happen to me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

30. When I do something especially well, she goes out of her way to let me know that I did a good job.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

Whom were you thinking of when you answered these statements? (Check one)

_____ My own mother

_____ My stepmother

_____ Another woman who takes care of me.

APPENDIX C

CORNELL PARENT BEHAVIOR DESCRIPTION (Modified)

Cornell Parent Behavior Description (Modified)

Mother*

Here are some descriptions of the kinds of things mothers do. Read each statement below and make a check mark above the answer which best describes your mother as she has been during the past year. Be sure to answer every statement. Please do not leave any out. Remember, you are describing your mother as she has been just during the past year.

If a woman who is not your mother has taken your real mother's place during most of the last year, put check marks for the answers which best describe that person. If you have not lived with either your own mother or someone taking her place for most of the last year, leave these questions blank.

If you have any questions, please raise your hand.

1. She wants me to keep my things in their place.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

2. If I do something she doesn't like, she won't talk to me or play with me for a while.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

3. She teaches me things I want to learn.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

4. She lets me off easy when I do something she doesn't like.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

*Wording is the same for father. Only the appropriate pronouns are changed.

5. She thinks that I cannot take care of myself.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

6. If I do something wrong, she is mad at me.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

7. When she punishes me, she tells me why.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

8. If I do something she doesn't like, she says she will hit me or smack me.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

9. She makes me feel she is there if I need her.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

10. She keeps after me to do well in school.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

11. When I have done something she doesn't like, she won't let me do things with my friends.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

12. She slaps me.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

13. She lets me make my own plans for things I want to do.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

14. I know what she wants of me and how she wants me to act.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

15. She says nice things about me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

16. If I do something she doesn't like, she is not nice to me.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

17. She cannot bring herself to punish me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

18. If there is something I don't know how to do, she helps me with my school work.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

19. She lets me make up my mind about things.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

20. When I do something she doesn't like, I know what she will say and do.

() () () () ()
VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

21. She spans me.

() () () () ()
NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

22. She wants me to help around the house or yard.

() () () () ()
VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

23. If I do something she doesn't like, she yells at me.

() () () () ()
NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

24. When she wants me to do something, she tells me why.

() () () () ()
VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

25. If I don't do what she wants me to, she is hard on me.

() () () () ()
NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

26. If I have some kind of problem, she is there to help me out.

() () () () ()
VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

27. She punishes me by not letting me use my favorite things for awhile.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

28. She keeps pushing me to do my best in whatever I do.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

29. She won't let me go places because something might happen to me.

() () () () ()
 NEVER HARDLY EVER SOMETIMES FAIRLY OFTEN VERY OFTEN

30. When I do something really well, she lets me know that I did a good job.

() () () () ()
 VERY OFTEN FAIRLY OFTEN SOMETIMES HARDLY EVER NEVER

Whom were you thinking of when you answered these statements? (Check one)

_____ My own mother

_____ My stepmother

_____ Another woman who takes care of me.

APPENDIX D
CONSENT FORM

Consent Form

Dear Parent/Parents:

You and your child are invited to take part in a study that has been designed to obtain information about medically healthy children who have experienced the death of a brother or sister due to illness. I hope to learn how children respond to the loss of a sibling and, based on the findings of this study, would like to develop specific methods of counseling bereaved children.

If you and your child decide to participate, I will request the parent to complete the Demographics Questionnaire and the Children's Health Check-List. This should take 5-10 minutes of your time. The child will be asked to take a paper and pencil test, the Cornell Parent Behavior Description, which will take approximately 15 minutes to finish. It may be necessary for the experimenter or one of his associates to read the items contained in the test instrument to your child, depending upon his/her age and reading ability. There is no reason to expect that you or your child will be harmed or receive any direct benefits as a result of participation in this study.

Any information that is obtained in connection with this study and that may be identified with you or your child will remain confidential and will be disclosed only with your written permission.

Your decision whether or not to take part in this study will in no way prejudice your future relations with your physician, social worker, or support group. Should you opt to participate, you are free to withdraw your consent and to discontinue your child's participation at any time with no prejudice.

If you have any questions now or during the course of this study, please do not hesitate to contact me. You may call me collect at (214)369-2386, or call (214)696-7355 and leave a message.

YOU ARE MAKING A DECISION WHETHER OR NOT TO TAKE PART IN THIS STUDY. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ THE INFORMATION PROVIDED ABOVE.

Date

Signature

Paul J. Taaffe, M.Ed.

VITA ²

Paul J. Taaffe

Candidate for the Degree of
Doctor of Philosophy

Thesis: THE EMOTIONAL ADJUSTMENT OF SIBLING SURVIVORS OF
LEUKEMIA AND SIDS VICTIMS AS EVIDENCED BY ATTITUDES
TOWARD PARENTAL BEHAVIOR AND PRESENCE OF
PSYCHOSOMATIC SYMPTOMS

Major Field: Applied Behavioral Studies

Biographical:

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