

THE EFFECT OF SONG WRITING ON CHRONICALLY  
ILL ASTHMATIC CHILDREN AND  
THEIR MAIN CAREGIVERS

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A THESIS  
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARTS  
IN THE GRADUATE SCHOOL OF THE  
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF  
HUMANITIES AND FINE ARTS

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DENTON, TEXAS  
DECEMBER 1987

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To the Provost of the Graduate School:

I am submitting herewith a thesis written by Anita Marie Greer entitled "The Effect of Song Writing on Family Interactions with Chronically Ill Asthmatic Children and Their Main Caregivers." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Music Therapy.

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Nancy A. Hadsell, Major Professor

We have read this thesis  
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To  
My Parents

### Acknowledgments

Appreciation to several individuals is acknowledged for their assistance in this project. Of paramount importance to the entire effort was the superb cooperation and assistance of Richard B. Silver, M.D., Gerry Degelia, R.N., Pat DeLacy, and the remainder of his office staff in providing essential contacts with appropriate subjects for this study.

Thanks is owed also to the family members who unselfishly participated as subjects of the study. I am indebted to these families who so willingly opened their homes and rearranged their busy schedules.

Appreciation is gratefully expressed to the members of my research committee: to my adviser, Dr. Nancy Hadsell, for her guidance, strength, and support throughout the project; and to committee members, Dr. Richard Rodean and Dr. Jennie Barr, for their research advice and editorial suggestions.

Special thanks is conveyed to my family and friends for their support, encouragement, patience, and prayers which were essential to the completion of this project.

### Abstract

The purpose of this study was to compare the effects of song writing versus no song writing on three family interaction variables (i.e., cohesion, expressiveness, independence).

Nineteen chronically ill asthmatic children between five and twelve years of age and their mothers were randomly divided into the control (N=10), no song writing, and experimental (N=9), song writing, groups. Both groups received pre and post testing over a 30-day period. Experimental subjects received six intervening therapeutic song writing sessions.

The dependent variables were the Family Environment Scale and the Children's Version of the Family Environment Scale.

Six separate one-way analyses of covariance were performed. Significant differences between the control and experimental group mothers' perceptions of family cohesion and expressiveness were found. The experimental group mothers' scores were lower on these two variables. Therapeutically, the song writing treatment produced an

instability within the family. No significant differences were found with the remaining variables.

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## CHAPTER I

### Introduction

The American family is a group of people related by ancestry or marriage. It is the basic unit in the current American lifestyle as it is in many other cultures. Commonly, the family is a social unit consisting of parents and children living in the same house. Not only is a family the accepted form of cohabitation, it often provides certain benefits to its members. These benefits include shelter, security, strength, loyalty, and love. Families of procreation begin with marriage. When children are born, they are nurtured. As children grow, they are encouraged to explore and develop their individualism. As siblings mature and parental needs vary, the needs of family members and the interactions between them change. For instance, adolescence requires adjustments in communication skills between parent and offspring. Therefore, families must relearn methods of interacting (Waechter, 1979).

Families with chronically ill children must constantly make adjustments in the home situation to deal with the illness as it progresses. A chronic illness is accompanied by remissions and exacerbations. Changes in the family

situation, whether brought on by individual maturation or by a catastrophic event precipitated by the child's illness, often cause rifts in the daily patterns of a household. These changes are handled with little difficulty in a healthy family. However, in a dysfunctional family, these changes can cause severe problems in the daily household regime. Families are considered mentally healthy as long as they maintain a functioning balance.

The impact of chronically ill children on their families is extensive. Despite the illness, the family continues to experience the standard life cycle and developmental stages. Family members also must endure frequent hospitalizations and the long-term care requirements associated with the chronically ill child. These additional hardships can cause the family considerably greater financial and psychological burdens. Recent research with chronically ill children and their families has indicated that the problem might be more positively approached by stressing family strengths rather than family weaknesses. Focusing on the strengths will help the family maintain homeostasis during acute exacerbations of the illness which may result in hospitalization (Patterson & McCubbin, 1983).

It is estimated that 30-40% of the children born each

year suffer from some health impairment. If only serious chronic illnesses of a primarily physical origin are considered, this estimate is around 10% of the newborn population (Mattsson, 1972).

Children have many needs beyond those of basic food, shelter, and clothing. Some of these needs include: love, security, affection, approval, recognition, and achievement. Children need a strong constitution for proper physical growth. A child's emotional growth and intellect are further developed by an active exploration of the environment through language, play, and imagination. A child's relationships and interactions with family and friends are often begun early in life through the family as a transmission of culture (Travis, 1976). Children with chronic health conditions often have social and emotional needs beyond those of healthy children. Dimock (1960) described these needs as trust, communication, autonomy, initiative, and socialization. A child's emotional and social needs are generally fulfilled by the child's parents, family, teachers, and friends. Children with chronic health impairments and their parents must learn to adapt to their illnesses and associated limitations. These families have to deal with hospitalization. The children need to learn and employ age-appropriate defense mechanisms to promote

preventive medicine (Schwankovsky & Guthrie, 1982). The family plays an important role in normalizing the home, school, and play environments for the child. Unfortunately, the chronically ill child's emotional and social needs are often overlooked because of the urgency of the child's physical condition. It is important to recognize the total needs of these children by encouraging contact and support from significant others, and by providing play activities which will benefit the family and child.

Music in Therapy. Gaston (1968) described music as a form of non-verbal communication. This communication can be directed to one's self or as a message to others. "Music involves the individual so totally and in such a unique fashion that closeness is felt, and painful aloneness can be alleviated....Music is nearly always an expression of good will, a reaching out to others" (pp. 24-25). Music has been prescribed as a curative and preventive healing technique since Plato and Aristotle, when the Greek philosophers equated the effects of music with the harmony of the whole person (Grout, 1973). Music remained an important aspect of medical healing until the technological revolution of the early twentieth century. Music therapy began as a profession during the pre-World War II period. Music was used during World War II as a psychological stimulant in the

general hospital environment and as a psychiatric treatment (Tyson, 1981). As the discipline developed, music therapy was practiced with a wide variety of populations in as many settings. Music therapy may be defined as the structured use of music under the direct supervision of a professional music therapist to influence desired changes in the physical, emotional, and behavioral aspects of the client, thus helping the client achieve therapeutic goals (Peters, 1987). For the purpose of this research, music therapy was defined as the structured use of song writing under the direct supervision of a board-certified registered music therapist to influence desired changes in cohesion, expressiveness, and independence in the relationship between the mother and her chronically ill child.

Several music therapists have designed treatment programs to assist children in resolving anxiety toward hospitalization. The effects of hospitalization on children can be severe. Hospitalized children are separated from their families and home environments. The hospital is unfamiliar in routine and design. These effects can provoke fearful fantasies not based on reality. The fantasies are often the result of anxieties toward surgery, disfigurement, and dying (Berger, 1983; Mattsson, 1972; Schwankowsky, et al., 1982). Chetta (1981) found that verbal explanation and

music therapy immediately prior to preoperative medication were significantly effective in reducing the child's observed anxiety level (1 min. 15 sec. prior to injection,  $p < .05$ ; 15 sec. prior to injection,  $p < .02$ ). The music therapy procedure involves the child's and the therapist's singing up to eight surgery-related songs. At a pediatric hospital, music therapy was used with terminal cancer patients in the treatment of anxiety and fear related to death and mourning. The creative energy provided by the music was used as a means of self-expression and an outlet for activity. These activities also allowed the child to work through unresolved grief in a creative and less threatening manner. "In working with pediatric cancer patients, one must seek out the healthy aspects of very ill people. The creative life of the child must not be dismissed as secondary in times of illness....Watching children die is draining, but enabling them to live richly, even if only for an hour, quickens the spirit" (Fagen, 1982, p. 22).

Song writing as music therapy can evoke an emotional response and utilize creative energy. It is a structured activity which can be directed toward specific goals. Ruppenthal (1965) used a song writing technique, called scribbling, that encouraged the client to stretch the

imagination without the strict rules of music composition. Scribbling is defined here as the process of allowing the client to experiment in any way on an unfamiliar musical instrument. Scribbling was used to reduce the tension between the therapist and the client. Castellano (1969) and Ficken (1976) used song writing in psychiatric settings to establish rapport, focus on reality orientation, and encourage self-expression. When recorded, songs become an immediate source of feedback for the client. Feedback discussions can then be internalized by the client and result in a therapeutic change.

Music Therapy within a Systemic Design. For many years, music therapy has been developed in conjunction with the psychotherapeutic framework. This approach entails specific therapeutic goals for individual clients. The psychotherapeutic framework often isolates the clients from their familial environments through hospitalization and private therapy. The psychotherapeutic model does not meet the needs of families. Music therapy with families should pursue a systemic or family therapy framework. Systemic intervention focuses on the family in the context of its natural environment. It is based upon the family as a whole. The individual family members relate with each other in an interdependent and interconnected manner. Each .

member's actions must be viewed with respect to the family's reaction of stability or instability. A stable or functional family is able to maintain a harmonic balance among family members, which is contrary to the relationship encountered in a dysfunctional family. Of the two approaches, systemic intervention is more cost effective and efficient, and it reduces the incidence of relapse due to changes in the family structure (Madanes, 1981).

Christman (1967) first suggested using music therapy within a family therapy framework. Within the article, the researcher described specific goals applicable to music therapy and systemic therapy. Bailey (1984) gave a descriptive account of music therapy with cancer patients and their families. Published songs were used as emotional and cognitive stimulators to provide an effective means for support, communication, and growth. This procedure progressed through three emotional stages in which the family worked toward acceptance and understanding.

#### Need for the Study

The foregoing discussion indicates a need for a common approach to the problems of both the parents and the chronically ill child. A structured session for the family in the home might meet the interpersonal needs of those concerned while strengthening the family for periods of



hospitalization. Since studies have described these needs, it appears that research which focuses on the family and the child together is indicated. A music therapy program with a systemic framework could be used to address this issue.

### Purpose of the Study

The purpose of this study was to compare the effects of song writing versus no song writing on three family interaction variables (i.e., cohesion, expressiveness, independence) as measured by the Family Environment Scale (Moos & Moos, 1981) and the Children's Version of the Family Environment Scale (Pino, Simons, & Slawinowski, 1984). Scores on these variables were obtained from the main caregiver (i.e., the mother) and the chronically ill child in each family.

### Hypotheses

H 1: No significant difference will exist in the  
0  
perceived family cohesion scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

H 2: No significant difference will exist in the  
0  
perceived family cohesion scores as measured by the CVFES between the experimental (song writing) group children and the control (no song writing) group children.

H 3: No significant difference will exist in the  
0

perceived family expressiveness scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

H 4: No significant difference will exist in the  
0  
perceived family expressiveness scores as measured by the CVFES between the experimental (song writing) group children and the control (no song writing) group children.

H 5: No significant difference will exist in the  
0  
perceived family independence scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

H 6: No significant difference will exist in the  
0  
perceived family independence scores as measured by the FES between the experimental (song writing) group children and the control (no song writing) group children.

### Definitions

The following definitions of terms were developed for this study. Although some of these terms are in common usage, these limited and specific definitions were used throughout this study.

Mattsson (1972) describes chronic illness as "a disorder with a protracted course which can be progressive and fatal, or associated with a relatively normal life span despite impaired physical and mental functioning. Such a

disease frequently shows periods of acute exacerbations requiring intensive medical attention" (p. 802).

Moos and Moos (1981) describe family cohesion as "the degree of commitment, help, and support family members provide for one another" (p. 2).

Moos and Moos (1981) describe family expression as "the extent to which family members are encouraged to act openly and to express their feelings directly" (p. 2).

Moos and Moos (1981) describe family independence as "the extent to which family members are assertive, are self-sufficient, and make their own decisions" (p. 2).

The main caregiver is the parent or guardian who spends the most time with the child in the hospital, as designated by the parent or guardian during the initial interview.

### Limitations

This study was limited in the following ways:

1. Subjects were selected from a group of volunteers referred by a pediatric pulmonary specialist in a large Southwestern city. It was not possible to attain a random selection from this population of chronically ill children; however, volunteers were randomly assigned to the control and experimental groups.
2. The children were limited in age from five years to twelve years as dictated by the limitations of the tests for

the dependent variables.

3. The children were limited to those diagnosed with asthma for a period six months or longer.

4. The children were limited to those previously hospitalized as a result of the diagnosed condition.

## CHAPTER II

### Review of Literature

#### Child Development

Childhood is the foundation for adulthood. Growth and development are inevitable; yet, the outcome for each child is dependent upon several basic components. Piaget, Erikson, Sears, and Montessori are known for their theories of child development (Cowan, 1978; Maier, 1965; Montessori, 1967). Piaget's theory emphasizes a cognitive approach to child development and human behavior. Erikson's theory, which expanded on Freud's psychoanalytic theory, emphasizes an affective approach based on internal needs. Sears' theory suggests that social learning or past satisfying experiences are the basis for child development. Montessori's theory is based on educational readiness. An in-depth study of the theorists would reveal agreements and disagreements regarding the developing child. Each theory is benefited when supplemented with the others (Maier, 1965). Travis (1976) suggested that children develop intellect through the use of language, play, imagination, and environment. They develop relationships and methods of interacting with others through the family's transference of

culture. King (1980) suggested personality differences in children are the result of their interactions with people and the environment. She offered the opinion that each person develops a role in life or function in society early in childhood. Lawson (1981) described three geographical divisions of the child's environment: the home and family, the school, and the neighborhood. The child's personality is dependent upon receiving love, discipline, and independence from these environments.

School aged children, ages five through twelve, have the ability to reason and generalize. School aged children understand the concept of time. This aged child can make requests, take responsibility for personal care, and communicate needs. In many ways, this developmental stage is psychologically calm. The child's energy is often expended by physical growth (May & Sparks, 1983).

#### Children's Response to Chronic Illness

Mattsson (1972) found the following:

Long-term childhood disorders may cause significant and permanent interference with the child's physical and emotional growth and development. This is in contrast to acute non-lifethreatening illnesses in which both physical dysfunctioning and attendant emotional

upset usually are of a limited duration and do not as a rule interfere with the child's overall development (p. 801).

Children develop self-images by comparing themselves with others and by being compared. The visibility of the disease may strongly influence both the child's perceived self-image and peer evaluations. Anderson and Bauwen (1981) conducted a study to determine the effect, if any, of observable disabilities on perceived worth in society. Healthy and disabled children, ages 9 to 11, and adults were asked to rank order pictures of children with various disabilities. Results showed that less value was placed on the person with the most observable disability. Disabled children graded the pictures more severely than the other participants. In general, the preference order from highest to lowest value was as follows: the child with no visible handicap; the child with crutches and a brace; the child in a wheel chair; the child with a left hand amputation; the child with facial disfigurement; and the obese child. Conversely, the same study (Anderson et al., 1981) found that children with an observable disease had less trouble integrating a total body self-image than a child whose symptoms were not observable. No experimental evidence was given to support their suggestions. However, they observed better self-images

among children with tangible disorders. These children could see the evidence of the disorder and how it was to be treated. Children with a non-tangible disease, like juvenile diabetes or asthma, were not able to make these observations. This led to resistance toward medical care during seemingly healthy periods of the child's life.

Children with chronic diseases may have difficulty coping with the stresses of maturing. Cluff (1985) suggested these children are at risk of becoming adults who are limited in their ability to function effectively. Mattsson (1972) stated that poorly adjusted children are particularly dangerous to themselves when confronted with chronic illnesses. Some of these children deny the seriousness of their illnesses by refusing to accept the diagnoses and subsequent treatments. In addition to medical care, these children need emotional support to help them adapt to their situations.

Fear plays an important role in the lives of these children. It is an instinctive reaction concerned mainly with self-preservation. Fear is stimulated when something interferes with the child's sense of security. Beverly (1936) proposed that love and security are essential for normal development. When security is undermined, the child's affective needs are no longer met. Many of these



children associate medicine with the fear of the pain of treatments, permanent injury, and the possibility of death. Closely related to the concept of fear, is that of courage. Courage is the ability to face that which is dangerous and painful. Haase (1985) analyzed the common components of courage experienced by chronically ill adolescents. Studies based on the results of interviews with nine chronically ill children indicated several ingredients necessary for courage. These include: (a) the will to organize and simplify, (b) self-respect, (c) the knowledge of what is at stake without courage, (d) resourcefulness, (e) a view toward the future, (f) practicing courage, (g) the maintenance of daily standards in activities, (h) companionship, and (i) religion and/or a set of beliefs. She suggested that courage is acquired gradually through coping methods and attitude development. Social supports are needed for courage to occur. Social supports include opportunities for creativity, clarification, and coping. Creativity, according to Haase (1985), seems to be the bridge between fear and action. Once courage is established, the children are able to face the reality of their illnesses and their treatments.

### Children's Response to Hospitalization

Gofman, Buckman, and Schede (1957) suggested that most children who are unprepared for the hospital experience may undergo extreme anxiety and demonstrate regressive behavior. Work (1956) agreed, stating that there is a tendency to regress to more dependent, less mature methods of feeling and behaving. Hospitalization generates concerns and needs for children which health team members do not always take into consideration. Outlets for energy and exploration are potentially eliminated in the hospital. Common emotional stresses of hospitalization result from: separation from parents, family, and home environment; inadequate support from parents; isolation; unfamiliar routines; physical constraint; shame and embarrassment; ignorance; and absence from school (Belmont, 1976; Gellert, 1958; Jackson, Winkley, Faust, & Cermak, 1952; King & Ziegler, 1981; Langford, 1961; Schwankovsky et al., 1982). Menke (1981) reported 42 different stress factors identified by hospitalized children, thus supporting the concept that the hospital is a stressful environment for children. More than one-third of the subjects identified the hypodermic needle, the bed, and the hospital gown as stressful. Menke (1981) felt that more emphasis should be placed on identifying each child's stress factors through the cooperation of the child, the family,

and the medical team. Berger (1983) related the child's developmental level to the amount of stress caused by hospitalization. Infants and toddlers were found to respond immediately to separation from parents often causing regressive behavior. Pre-schoolers viewed separation from parents as a punishment. School aged children found separation easier because they had previously developed social relationships outside the home. Many of these children feared anesthesia because the drugs interfered immensely with recently attained self-control. Adolescents, normally striving for independence, found the need to return to dependency. This resulted in feelings of being cut off from the peer group. Berger (1983), Gellert (1958), Gofman et al. (1957), and May et al. (1983) outlined several steps to help alleviate the emotional trauma caused by hospitalization. These include: satisfactory preparation of both the parents and the child for hospital procedures; modifying hospital rules to meet the family's needs; providing a personal approach; and providing age appropriate activities with the child and family or peers to resolve emotional concerns.

### Impact of Chronic Illness on Families

In coping with a chronically ill child and the daily wants of life, some families grow stronger, while others dissolve. Duvall (1977) suggested that chronic illness is a situational crisis which superimposes itself on a family's daily tasks. Illness is a source of stress that requires a redistribution of functions. Regardless of the diagnosis, families face similar problems. The impact of chronic illness causes a disruption within the family that impedes development (Ack, 1983; McHugh, 1984; Minuchin, 1974; Pless & Douglas, 1975). Patterson and McCubbin (1983) summarized the hardships of these families as: strained family relationships; modifications in family goals; increased time commitment; increased financial burden; social isolation; medical concerns; differences in school experiences; and grieving. They found that maintaining family integration and self-esteem for the family and the child were important coping behaviors in a chronic illness situation.

Friedman, Chodoff, Hamburg, and Mason (1963) examined the impact of the continuous stress of chronic illness on families. They found a correlation between poorly adjusted families and the degree of guilt. Most families admitted feeling guilt brought on by the initial diagnosis. Those families retaining guilt become overly indulgent and

protective, often loosing control of their children's behavior. In another study, Stein and Jessop (1982) reported similar information. Siblings were often designated as intermediaries between the parents and child, thus lessening the parental burden.

Travis (1976) and Patterson (1985) studied the impact of home medical care with regard to family compliance. Travis (1976) found compliance depended upon the family's ability to secure competent, understanding medical care. Patterson (1985) identified six variables associated with compliance to prescribed home treatment. These variables were considered critical to 72 families with one or more chronically ill children living at home: (a) age of child; (b) sex of child; (c) active recreation orientation; (d) unemployed mothers; (e) family resource of expressiveness; (f) family coping to maintain integration, cooperation, and optimistic definition of the situation. This study found older children more defiant. Boys were found less compliant with family rules; home medical treatment was no exception. Active recreation association was negatively correlated with home compliance, but positively associated with one of the measures of change in child health. "Families may know best how to allocate their finite resources of time and energy for the benefit of all family members" (Patterson, 1985, p.

88). Non-working mothers had more time to devote to home medical treatment. Family expressiveness was considered vital to communicate a sense of hope and cooperation among family members.

### Family Coping Behaviors

Mattsson (1972) found coping behaviors strongly correlated between the family and the child. Coping strategies for the child involve: the ability to function at home, at school, and with peers; age-appropriate dependence; and age-appropriate self-care responsibility. These strategies are characteristic of children with cognitive flexibility, appropriate physical activity, outlets for emotional release, and a strong sense of family love and support. Krulik (1980) found several normalizing tactics used by parents to encourage their child's success at coping. These include: giving the child adequate preparation for medical procedures; allowing the child active participation in decision making and management; encouraging the child to share the experience with family and friends; and providing security and taking control where control is needed. Successful family coping management depended on continuous support from medical personnel and parental acceptance of the child's disease. The support sought from health care personnel concerned the child's

future and comfort (Hymovich & Baker, 1985).

Before acceptance and successful coping can be attained, most families have to work through the stages of grief. Grief is caused by the realization and loss of a 'healthy' child. It is further enhanced by the awareness of the chronicity of the disease. The stages of grief include: acute fear and anxiety; shock and disbelief; anger, denial, and guilt; rationalization; intellectualization; need for support groups; bargaining and hope; and acceptance. Families move through these stages at various phases depending upon outside supports (Friedman et al., 1963; Kubler-Ross, 1969; Mattsson, 1972; Pearse, 1977).

Coping within a religious framework is an important solution for many families (Friedman et al., 1963; Pearse, 1977; Venters, 1980). This search for meaning can be perceived as a sign of faith and as a healthy stage within the grief process. Hymovich and Baker (1985) saw praying as a means to attain hope for an altered outcome.

McCubbin, McCubbin, Patterson, Cauble, Wilson, and Warwick (1983) determined that parents receive strength from understanding the medical situation and consulting with the medical personnel. This supported Hymovich and Baker (1985) in their assessment of parental concern for the child. Mattsson (1972) and Pearse (1977) perceived parental medical

interest as a necessary process of grief. They felt parents were attempting to rationalize and intellectualize their fears. Friedman et al. (1963) observed the process of intellectualization or overt medical interest as an unsuccessful coping behavior. Rather than becoming emotionally overwhelmed, the parents created a regime designed to ascertain detailed information regarding their child's health without emotional involvement. Anger and pessimism toward the staff were exhibited whenever the regimen was disturbed.

Mattsson (1972), McCubbin et al. (1983), and Venters (1980) acknowledged the benefits of social support, self-esteem, and family integration in forming successful coping behaviors. Further results of these studies showed an emphasis on family flexibility, cohesiveness, and expressiveness. McCubbin et al. (1983) suggested that strengthening parental coping behaviors should be an objective for health care personnel.

#### Chronic Asthma

Asthma is an episodic, obstructive disease of airways, manifested physiologically by spasmodic contractions of the smooth muscle or contractions of the bronchi, and characterized clinically by shortness of breath, coughing, and wheezing respiration. Hobbs, Perrin, and Ireys (1985).



suggested that asthma is provoked by a variety of environmental stimuli including allergens, aspirin, other non-steroidal anti-inflammatory agents, environmental pollutants, occupational factors, infections, exercise, and emotional stress.

McFadden (1987) and Hobbs et al.(1985) found that 3% of the United States population suffers from asthma. Bronchial asthma occurs primarily in early life, about one-half manifesting before age 10 and another third occurring before age 40. Studies have found that the majority of children diagnosed with asthma will improve within five years of onset. Some will become symptom free or will retain only mild difficulties, while about 10% will continue to have severe problems. Hobbs et al. (1985) referred to asthma as a polygenic disease with clear evidence of genetic etiology in some patients. When no such evidence is found in other patients, the origin is attributed to environmental and psychological factors.

Air is drawn into the lungs by increasing the volume of the thoracic cavity. This is brought about by a contraction (descending movement) of the diaphragm and by raising the ribs through a contraction of the intercostal muscles. Oxygen is provided to the body through the lungs. The airways consist of a series of branching tubes, which like.

the limbs of trees, become narrower and shorter as they penetrate deeper into the lung. Travis (1976) suggested that asthma results from an imbalance in the autonomic nervous system. This imbalance leads to hyperactivity of lung tissue resulting in an asthma attack. These exacerbations can last for several hours. If asthma is not relieved by medication and continues for more than 24 hours, the child is said to be in Status Asthmaticus. This condition varies in severity but is hazardous, requiring medical care and constant supervision.

Treatment of asthma is varied. Immunotherapy with extracts of allergens is common; however, controlled studies are limited and have not proven it to be highly effective. Respiratory therapy is recommended as another means of treatment to develop optimum respiration. Psychological treatments which may consist of psychotherapy and relaxation techniques are used to help decrease anxiety and emotional tension which are closely related to the asthma condition (McFadden, 1987). Four major categories of drugs are commonly used in the treatment of asthma. These include: (a) theophylline, (b) beta-adrenergine, (c) corticosteroids, and (d) cromolyn sodium. Each of these drugs has unsatisfactory side effects. Common side effects of these drugs include: headache, nervousness, insomnia, change in

appetite, nausea, weight gain, rapid heart rate, susceptibility to cataract formation, and increased body hair (Griffith, 1987; Plaut, 1983).

The emotional stresses placed on the family and chronically ill child are immense. These stresses are caused by the uncertain outcome of the disease and the unsatisfactory side effects of the treatment drugs. When the disease is in an acute situation, the family's emotional stability is challenged. The family might benefit from mental health intervention to provide the additional support needed in times of crisis.

#### Mental Health Care Intervention

Patterson and McCubbin (1983) identified several fundamental strategies for prevention-oriented family intervention. These strategies are pertinent to families coping with chronically ill children. They include: helping families maintain a focus on the present family crisis; helping families gain a conscious control of the crisis to enhance problem-solving skills; helping parents maintain self-confidence; assisting families with interpersonal communication; offering basic information and education regarding medical questions; helping provide and develop social support; helping families master the medical procedures involved in home care; and creating avenues to .

community resources. The medical staff can provide some of this information; however, other health care professionals should be consulted for mental health intervention.

Child Life programs in hospitals are designed to meet the needs of children. The main program goals are minimizing the trauma of hospitalization, helping the patient cope, and providing opportunities for normal development as it would occur outside of the hospital. Play therapy is the primary method of helping hospitalized children cope with hospitalization stress. Play has been found to be very effective when dealing with a child's self-expression because the child can gain control of the play environment (Mattsson, 1972). Play therapy is the structured use of play activities designed to meet the specific needs of hospitalized children. MacLennan (1949) used constructive games with hospitalized children to help them work through anxieties caused by hospitalization. Adams (1976) developed a structured group play situation directly related to the hospital experience. This program provided the children with an opportunity to re-enact, face, and master the anxiety associated with hospitalization. It also provided a tool to assist the children in exploring and understanding their feelings. Currant (1985) found play-puppet therapy effective with children who have

learning difficulties and/or emotional problems. The children develop and dramatize their puppets to suit themselves. In this manner, puppetry is an excellent, non-threatening use of role-playing.

### Family Therapy

A family is a social unit consisting of parents and the children that they rear. For purposes of therapy, an extended family of relatives, friends, and social workers is often included.

Healthy families show less interest in understanding motivations. They weather the transitional steps of a family life cycle with inordinate ease, although the crisis points during transition can be difficult. The family life cycle is often perceived as a potential crisis at the point of transition. Berger (1983) described these stages as the nurturing period, the authority period, the interpretive period, the interdependent period, and the retirement period. Duvall (1977) clarified the stages to include specific aspects of the developmental life-cycle. These life-cycle stages include: married couple, childbearing, preschool age, school age, teenage, launching center, middle-age, and aging of family members. Healthy families adhere to cultural practices concerning hierarchical structure and generally do not allow cross-generational

alliances (Stanton, 1981). It is important to note that a family is considered stable as long as its system maintains homeostasis.

In contrast to healthy families, dysfunctional families are unable to adjust to the changes which occur during the family life cycle. These families usually exhibit a confusion in the hierarchical structure. Cross-generational coalitions are common in dysfunctional families (Minuchin, 1974). These alliances usually involve one parent siding with a child against another parent. In a dysfunctional family, a third person is brought into an emotional system when tension develops between two people. This emotional system can be described as a triangle in which the third participant is usually a child (Bowen, 1978). The child protects the family homeostasis by providing a symptom, whether in the form of an illness or an extreme behavior, as a distraction to the family tension. The family responds to this symptom with a response to help the symptom-bearer. The family maintains the dysfunction in the family by giving control to the symptom-bearer and ignoring the parental tension (Liddle, 1983). As long as the child remains a problem, the family balance is undisturbed. Dysfunctional families with chronically ill children encounter additional responsibilities and burdens brought on by their illnesses.

This further unstabilizes the dysfunctional family.

Traditional therapy, whether psychoanalytic or behavioral, involves a counselor and client in an isolated therapeutic situation. This type of therapy is very effective for many people. The family therapy approach is based on the family as a unit. The focus turns from that of the problematic individual to the family members' interactions and interrelationships (Haley & Madanes, 1977). Family therapy is a generic term for a variety of therapies derived from a systemic theory of counseling.

One such theory is based on cybernetics, a science dealing with the comparative study of the operations of complex electronic computers and the human nervous system. Cybernetics was established by Weiner in 1948. Madanes (1981, p. 14) explained cybernetics as "homeostatic systems with feedback processes that cause the system to be self-corrective." Cybernetics can be related to the family since any change affecting one member of the family affects the whole family. Therefore, the family system is dependent on the entire family's ability to adapt to change for continued existence (Minuchin, 1974). Gregory Bateson, an anthropologist working at a neuropsychiatric institute, joined Weiner on a series of Macy Foundation conferences to

incorporate the cybernetic principles in the systemic theory (Stanton, 1981).

Process of Therapy. Haley (1980) outlined a four stage procedure for family therapy. In stage one, the therapist takes the responsibility for the outcome of therapy. This gives the therapist control of planning goals and directing the therapy. The therapist in stage two encourages the family to work toward solving the presenting problem. By giving the family, especially the parents, the responsibility for solving the presenting problem, the family begins communicating positively toward the identified patient. The identified patient is the family member that displays or is said to display the problematic behavior. Stage three occurs as the identified patient grows toward normality. The identified patient will begin achieving self-support by successfully attending school or work and by making close friends. At this time, the family will become unstable causing the identified patient to relapse. This return to problematic behavior will help stabilize the family by defocusing the real issue. It is the therapist's job either to resolve the issue or to remove the identified patient from the family situation. After the intense preoccupation of stage three, stage four calls for rapid detachment. This termination of therapy should begin as



soon as a positive change is noted within the family. The therapist needs to remember the goal of therapy is solving the presenting problem, not resolving all the family's problems. Therapy should only continue if the family desires to re-contract services for a different problem. Otherwise, it negates the progress made by the family. This causes the family to become reliant on the therapist which inhibits self-directed change (Stanton, 1981).

#### Music Therapy within a Family Therapy Framework.

Kuchinsky (1981) tested the difference between the degree of transactional dynamics occurring within a family, whether they are engaged in a primarily verbal family interview session or an evaluative family music session. The family interview was conducted by a family therapist. The family music session was conducted by a music therapist and video-taped for further evaluation by three trained observers. Results indicated a difference with regard to family system participation. Conclusions remain unclear because the music therapy evaluation tool had questionable validity. Bailey (1984) and McDonnell (1984) used music therapy with hospitalized patients and their families to provide an effective means for support, stress reduction, communication, expression, and growth. Bailey (1984) utilized song material to stimulate discussion among cancer

patients and their families. McDonnell (1984) utilized song, rhythm, and sound to encourage interaction with trauma-burn patients and their families. These descriptive studies provided a framework on which more research should be based.

### Creativity and Music Therapy

Gaston (1968) described music as a form of non-verbal communication. Storr (1975) suggested the great appeal of music was aesthetic. Music provides an emotional outlet and a cross-cultural bridge for communication. Crowder (1984) described a harmonic distinction in music which results in perceived emotional change within the context of the music. This distinction occurs with the use of major and minor key signatures. These are perceived, respectively, as happy and sad in our musical culture. Another distinction within music is that of stylistic differences, classical versus popular. Castell (1982) tested children, ages 8 to 11, to determine if they could perceive a difference in the styles. Results showed children are surprisingly sensitive to differences, especially between types of popular music. Tempo and rhythm seemed to be the determining factors for popular music. Instrumentation was the method of distraction for classical extracts. Despite the varieties of descriptions given, music is a medium through which one

can explore and communicate feelings.

Plach (1980) explored adding dimensions to music which evoked feelings and expression among adult clientele. These dimensions included art, drama, and writing. They helped provide an additional therapeutic procedure which maintained on-task behavior. These dimensions created group flexibility because they were applied on an individual basis or in dyads, subgroups, and full groups. Music improvisation was a creativity which utilized rhythm, melody, and song-lyric. It was very effective in assisting the client in self-expression. Plach (1982) described song lyric discussion as less threatening to the client when verbalizing about a personal problem. Apprey and Apprey (1975), Batcheller and Monsour (1972), Ficken (1976), and Priestly (1975) used improvisation and composition in therapy. Improvisation was used to bring about cohesiveness. Composition provided a means to become aware of patterns of interaction. It provided an important agent for self-expression. Both activities allowed the clients to share common concerns and feelings.

#### Music Therapy with the Chronically Ill

Jones (1985) incorporated play therapy and music therapy in a communication program with hospitalized children. It was found that music provided the stimulation.

which encouraged the children to express verbally their play rhetoric. This allowed the therapist to understand the child's insecurities and help them resolve their fears.

Froelich (1984) designed a study to test the strengths of music therapy and play therapy. The dependent variable was the type of verbalization given to four questions at the end of the session. Favorable results showed that music therapy elicited a more involved type of verbalization from the children. Froelich (1984) suggested that music therapy programs be considered for pediatric hospitals. Cooke (1969) utilized music therapy and play therapy with a hospitalized child. It was observed that music helps provide the child with structure, organization, and a means of expression during the session. Signs of anxiety, faster speech, and higher pitched speech were observed during non-music interventions.

In the hospital setting, Bailey (1983), Bonny (1983), Christenberry (1979), Curtis (1986) and Wolfe (1978) found live music and pre-recorded music useful in providing sensory stimulation, pain relief, and relaxation. Wolfe (1978) conducted a music listening and discussion group for patients suffering chronic pain for a period of at least six months. The program was designed to increase patients' activity levels and to increase positive verbalizations.

Results were not significant; however, a positive trend toward improvement was cited. Christenberry (1979) described a program in three stages for burn patients. Stage one is an auditory aid designed to reduce boredom and the tendency to hallucinate as a result of the infection-free, sterile environment. Stage two activities encourage discussions designed to help the patient deal with the burn injury. Stage three is designed to re-establish the patients' self-esteem. Christenberry (1979) attributed effective results to music therapy as the one pain-free activity experienced by the patients during hospitalization for severe burns. Bonny (1983) found pre-recorded music significantly effective in decreasing the heart rate of coronary patients on an intensive coronary care unit. Some patients showed significant changes from negative to positive in emotional condition. Staff observations were also positive. Bailey (1983) compared live music with pre-recorded music on hospitalized cancer patients to determine which medium contributed most to mood states. Live music was more effective. A significant difference was obtained on two factors, tension-anxiety and vigor. Curtis (1986) examined the effect of music with terminally ill patients on patients' perceived degree of pain relief, physical comfort, relaxation, and contentment. Results

showed no significant difference in the dependent variables; however, contentment scores approached significance.

Chetta (1981) tested the effect of music and desensitization on the pre-operative anxiety in children, ages 3 to 8. Results indicated significantly less anxiety in the experimental group that received treatment with music on the morning of surgery immediately prior to induction of pre-operative medication. In a similar study, MacClelland (1979) tested the effect of music in the operating room. Patients with earphones found that music decreased anxiety, muffled noises, and decreased the susceptibility to extraneous stimuli. Staff found music interspersed with silence decreased levels of tension and fatigue.

Gross and Swartz (1982) studied the effects of music therapy on anxiety in chronically ill patients. The purpose was to determine if music therapy would produce changes in the trait and state anxiety of hospitalized, chronically ill adult and elderly patients. Significant results were reported for both trait and state anxiety. Marley (1984) examined the effectiveness of music in decreasing stress behaviors exhibited by hospitalized infants and toddlers. Stress behaviors were defined as crying, throwing objects, absence of vocalization, lethargy, and body tension. Music programming included relaxation, didactic games, movement,

and songs. Results showed that music plus interaction with a music therapist significantly reduced stress-related behaviors.

Gilbert (1977) suggested music therapy be used with terminally ill patients and their families. The recommended procedure was the establishment of mutual support groups with music stimulated participation and discussion. It was felt that music provided a non-threatening vehicle to express emotions and ideas. Fagan (1982), in a similar project, utilized music therapy as a method for grief work with terminal pediatric patients. Both studies provided a framework upon which research needs to be based.

#### Music Therapy and Asthma Research

According to Marks (1974), breathing exercises as a therapeutic program for asthmatics are advocated by physicians. These exercises, however, are often unsatisfactory because of the chore involved in exercising. Marks (1974) suggested that asthmatics learn to play musical wind instruments because wind playing improves pulmonary function and breathing techniques. A survey of band directors with asthmatic band members showed higher absenteeism among non-wind instrumentalists with asthmatic problems than asthmatic wind players. Marks attributed this to the motivational factor and to the practice time involved

in playing a wind instrument as opposed to the daily routine of practicing breathing exercises.

Huttlin (1982) compared lung capacities of college wind instrumentalists and vocalists to those of a control group of college students not majoring in either an instrument or voice. He found the lung capacities of wind instrumentalists and vocalists were generally greater than those of the control subjects.

Behrens (1983) evaluated the effect of pianica blowing on the respiration process of young handicapped children with asthma and the reliability measurement of a modified incentive spirometer with the same population. Results showed a significant increase in the respiratory capabilities of the handicapped children. Indications were that music therapy procedures helped the children control their exhalation and inhalation processes during specific activities.

Schwankovsky et al. (1982) suggested music therapy to help develop proper breathing techniques. In addition, intervention should be used to help develop a healthy self-image and to provide an emotional outlet.



### Summary

The research literature examining child development stresses the importance of meeting children's emotional needs (i.e., love, security, self-worth). These needs are best met by family, friends, and teachers. Children with a chronic illness, such as asthma, have physical impairments which often cause the emotional needs to be overlooked. It is imperative that mental health care professionals recognize these needs by helping these children address the emotional concerns brought about by their illnesses. Traditional health care plays an important role in the physical well being of chronically ill children; however, non-medical interventions are needed to encourage the children to express their emotional concerns. Haase (1985) suggested using creativity as the bridge between fear and courage. Creativity provides the children with an opportunity for clarification and coping.

The impact of chronic illness affects families and their ability to function productively. Chronic illness can be viewed as a situational crisis which takes precedence over daily family tasks (Duvall, 1977). The family encounters financial, physical, and emotional hardships. These burdens cause the family to alter previous functioning strategies to cope. Mental health professionals can assist

the family in developing new coping strategies by emphasizing cohesiveness, flexibility, and expressiveness (McCubbin et al., 1983).

Music therapy within a family therapy framework is beneficial in intervening with families and their chronically ill children. Bailey (1984) and McDonnell (1984) used music therapy to stimulate discussion, encourage support, and reduce stress with hospital patients and their families. Music therapy provides a non-threatening environment for families to express their fears and concerns regarding their children. It also allows families and children to work together productively to establish family cohesion and expressiveness. The research literature supporting music therapy in conjunction with family therapy is limited. This study is designed to provide a bridge between the two disciplines. Since most music therapists are not trained to do family therapy, it was thought this study should employ a technique of song writing which the average music therapist could facilitate.

Research literature supported the use of song writing as a way to bring about cohesiveness and creativity. Song writing also was suggested to develop self-expression and interactional patterns within the family. In this study, the discussion following the song writing procedure was used

as a non-threatening allotment of time during which the family dyad could discuss personal concerns addressed in the procedure. Music therapists are competent in music composition, and song writing has been supported by the research literature as a therapeutic intervention. For this reason, song writing served as the independent variable in this study.

## CHAPTER III

### Methodology

Nineteen chronically ill children between five and twelve years of age and their mothers were randomly divided into two groups. Both groups received pre and post testing. The experimental group received intervening music therapy sessions. The family characteristics analyzed were family cohesion, expressiveness, and independence.

#### Setting

The setting for this study was each family's living room. Potential participants were identified through the office of a pediatric pulmonary specialist.

Initial contact with potential participants was made by telephone. The researcher spoke with the main caregivers to gain verbal consent and to arrange for the initial testing session. The schedule of subsequent sessions was established during the first session.

The researcher presented the questionnaires and supervised their completion. The researcher also conducted the song-writing sessions.

#### Population and Sample

Potential child participants met the following

criteria:

1. The child was between the ages of five and twelve.
2. The child had been diagnosed as having chronic asthma for a period greater than six months.
3. The child had been previously hospitalized as a result of the diagnosed condition.
4. The child had been seen by the pediatric pulmonary specialist at least once in the previous three-month period.

The identity of the main caregiver was determined during the telephone interview by asking the mother which parent spent the most time caring for the child during hospitalization. In all cases, the mothers in this sample (N=19) took the primary responsibility for providing care for their hospitalized children.

The sample for this study was selected from a volunteer group of clients from a private practice of a pediatric pulmonary specialist located in a large southwestern city. An initial letter was sent with a routine monthly statement to inform the parents that subjects were needed for the study (see Appendix A). Three participants notified the office personnel of their interest from this initial contact. Office records were screened to identify additional families who met the criteria for participation in the study. Consultation with the head nurse at the

physician's office identified thirty-three families as potential participants.

The researcher then contacted subjects who initially expressed interest and others identified as meeting the criteria by telephone. After the subjects agreed to take part in the study, the researcher established random group assignment on the basis of a coin flip, "heads" for control group and "tails" for experimental group. The researcher then continued the telephone interviews with further clarification for participants in each group (see Appendix B). Upon final agreement by each participant, an appointment was made for the first session. The subjects read and signed the consent forms (see Appendixes C and D) prior to completing the Family Environment Scale (Moos and Moos, 1981) and the Children's Version of the Family Environment Scale (Pino et al., 1984).

Appropriate procedures were followed in compliance with the rules and regulations of Texas Woman's University Human Subjects Review Committee (see Appendix E) and the Graduate School at Texas Woman's University. Agency permission was obtained also from the cooperating pediatric specialist (see Appendix F).

#### Testing Instrument

The instruments used were the Family Environment Scale

(FES) and the Children's Version of the Family Environment Scale (CVFES). The FES is a self-report questionnaire which consists of 90 true-false items pertaining to characteristics of the subject's family. The FES was used with the mothers. The CVFES is a pictorial, multiple choice measure consisting of 30 items with three similarly analogous pictures. The CVFES was used with the children. The FES/CVFES return scores on ten subscales. Each subscale describes a specific characteristic of families. The subscales describing family cohesion, expressiveness, and independence were used as dependent variables in this study.

Family Environment Scale. The FES began as a 200-item questionnaire, referred to as Form A. These items were developed from information gathered in structured interviews with members from different types of families and adapted from other Social Climate Scales by Moos (1974b). After determining that each item could reflect an aspect of the family environment with an emphasis on interpersonal relationships, personal growth, and family organization, Form A was administered to 1000 people in 285 families. The sample was used to ensure that the FES was applicable to a wide range of ethnic and cultural family settings. Five psychometric criteria were used to evaluate the items for the final form of the FES. Accepted items scored as close

to 50-50 as possible to avoid items that were characteristic to unusual families. Within each subscale, the items correlated more highly with their own subscales. The subscales had a low to moderate intercorrelation. The 90 items in the final form, Form R, of the FES met these criteria.

1125 normal and 500 distressed families were involved in the normative data on the Form R subscales. Represented in the sample for normal families were intact, single-parent, multigenerational, and ethnic minority families of all age groups. These families were drawn randomly from all areas of the country (Moos, Finney, and Chan, 1981). The subscale means and standard deviations are similar among several subsamples within the normal family sample, indicating that the results of Form R represent the range of normal families. Distressed families represented in the sample were selected from psychiatrically-oriented family clinics and probation and parole departments. Other subsamples were made up of families of alcohol abusers, of general psychiatric patients, and of families in which a child was in a crisis situation. The distressed families, when compared to normal families, scored lower on subscales of cohesion, expressiveness, and independence. After statistical controls were instituted for group differences



on socioeconomic and family background characteristics, the differences between the distressed family and normal family samples remained evident (Moos & Moos, 1981).

Test-retest reliability of scores for the 10 subscales were computed for 47 people in 9 families who took Form R twice with an 8 week interval between testings. The test-retest reliabilities varied from a low of .68 for independence to a high of .86 for cohesion. Two month test-retest reliability was .73 for expressiveness.

Test-retest stabilities were also calculated for a 4-month interval with 35 families and for a 12-month interval with 241 families. Cohesion coefficients were .72 and .63, expressiveness coefficients were .70 and .69, and independence coefficients were .54 and .52, respectively (Moos & Moos, 1981). Overall, the subscales have moderate to high internal consistencies (Cronbach's Alpha) ranging from .61 to .78 using the Kuder-Richardson Formula 20, and acceptable test-retest reliability ranging from .68 to .86 (Moos, 1974)

Construct validity of the FES subscales was supported in a study by Barrera, Sandler, and Ramsay (1981). Significant relationships were found between cohesion, expressiveness, and lack of conflict in the family and the number of household tasks performed jointly by the spouses.

They found that persons with high perceptions of family cohesion reported receiving more socially-supportive behaviors from family members.

The FES was studied to determine whether gender differences and parent-child differences are apparent in family perceptions. The data indicated that few gender differences were perceived, although wives had a tendency to perceive their families' in a slightly more positive manner. Boys and girls viewed their families in a similar manner. Parent-child differences were slight, although systematic. Children perceived less emphasis on cohesion, expressiveness, and independence (Moos & Moos, 1981).

Reinhart (1977) used the FES to determine if one-parent families could provide a stable environment conducive to the personal growth of family members. He compared two-parent families with one-parent families composed of divorced mothers and one or more children. The results indicated that one-parent families should be identified as potentially well-functioning family units.

Christensen (1976/1977) conducted an eight-week program of treatment intended to change delinquent behavior by changing the family system. Christensen found the FES sensitive to changes that occurred in the family environments during the eight-week period. The treatment

group perceived more cohesion and less conflict after the program, while no significant changes were perceived in the control group. Bader (1976) used the FES to study the changes in the family before, immediately after, and two months following a one-week multiple-family therapy workshop. Control group families did not change significantly over time on any of the FES subscales. The families in the experimental group, however, showed significant increases in cohesion, expressiveness, and independence immediately following the workshop. Additional increases were observed in these three areas at the two-month follow-up interval.

#### Children's Version of the Family Environment Scale.

Initial normative data on the CVFES was tested on a population of 158 Buffalo, N.Y. area children, grades one through six. Families were mainly drawn from lower and middle socioeconomic groups. The religious grouping was largely Roman Catholic. Means for cohesion, expressiveness, and independence were 6.6, 5.9 and 5.8, respectively. Standard deviations were 1.6, 1.4, and 1.5, respectively. The CVFES was found to have high reliability over a four-week test-retest interval ( $R=.80$ ).

Content validity was conducted using a small sample of children ( $N=16$ ) who were asked to write out their

perceptions of the meaning of each of the pictures on all the scales. The children were between the ages of six and twelve. Using a reliability rate of .90, two clinicians ranked each picture according to agreement between the children's responses with the intent of each picture. Inter-rater reliability was found to be .84. Z values were calculated to determine how well the clinicians agreed with the children's analysis of each CVFES scale. All ten scales were shown to be correctly identified ( $p < .01$ ). Older children above grade four rated the test with more accuracy. Although the pictures on the CVFES show a family of four, most of the children had no difficulty relating the pictures to their own family situations. More children from single parent families were able to respond and relate to the pictures than not. Further research in this area is currently in progress (Pino et al., 1984). At this time, the validity of the CVFES rests on whether the child perceives each sub-scale as representing the FES dimension, upon which it was based. The raw scores from the CVFES can be converted to standardized scores with a table of norms. These standard scores enable the researcher to compare the CVFES to the FES.

#### Data Collection

The researcher went to the family dyad's home at the

appointed time. Mothers were asked to read and sign consent forms.

Pre-Intervention. Dyads from the control and experimental groups were asked to complete a paper and pencil test about family interactions. Test instructions were read aloud with the subjects. The mothers took the FES, while the children took the CVFES. The experimenter read the test questions to children below eight years of age. Both tests took approximately thirty minutes to complete. Upon completion, the researcher and dyad scheduled the remaining seven sessions for the experimental group and the last session for the control group.

Intervention. The experimental group dyads received six therapeutic song writing sessions. The control group received no therapeutic intervention.

The researcher used her own materials for the song writing sessions. A 21 chord Oscar Schmidt Autoharp, model number OS-81G, was used to accompany the songs written during the sessions. A Toshiba FM/MV/SW1/SW2 Stereo Radio Cassette Recorder, model number RT-7085, was used to record the dyad's songs. Each experimental dyad was assigned a BASF 60 cassette tape on which the songs were recorded. An 11" x 14" Grumbacher's Big Drawing Paper Pad with 100 sheets was used to record the brainstorming ideas and new song

words.

The song writing procedure took place approximately twice each week. Exceptions were made to accommodate child hospitalizations and family schedule conflicts. Sessions were rescheduled for the closest available date. Family dyads wrote one new song each session. The experimenter met privately with each family dyad. The music sessions were recorded so the tape could be returned to the family after the research was concluded. The tapes were considered the property of the subjects, and privacy was observed.

The step-by-step song writing procedure was as follows:

1. The process of song writing was explained to the participants in the following manner: everyone works together on the song; everyone has a say in the final product; everyone's opinion is important; brainstorming is important; every response is valid; strange or unusual musical sounds are not mistakes, but ways of expressing oneself; the words can be written as a poem, a story, or a series of unconnected words; the melody is ad-libbed once the words have been written; and percussive noises can be included.

2. The subject pairs heard examples of three song styles (rock, ballad, country-western). After hearing the examples, the subjects were asked to select their preferred

style. The example for the rock style was Girls Just Want To Have Fun (Hazard, 1983). The autoharp strum for the rock style was 1 2& &4& in 4/4 meter. The example for the ballad style was That's What Friends Are For (Sager & Bacharach, 1982). The autoharp strum for the ballad style was a picked ascending triad in 3/4 meter, and a picked Alberti in 4/4 meter. The example for the country-western style was King Of The Road (Miller, 1964). The autoharp strum for the country-western style was a combination pick and strum, beats one and three were picked, beats two and four were strummed in 4/4 meter.

3. The subject pairs were given a topic for the day. Session topics, respectively, included: life at home; who am I?; all about my friends; being sick; being in the hospital; all about my family.

4. Through brainstorming, subject pairs were encouraged to write the lyrics and title for each song.

5. The subject pairs heard an example of the preferred song style played in major and harmonic minor scales. The preferred style examples were reused as major scale examples. Example songs in the minor scale included: the rock style, Rain On The Scarecrow (Mellencamp & Green, 1985); the ballad style, Time In A Bottle (Croce, 1971); and the country-western style, Lady (Richie, 1980). After

hearing the examples, subjects were asked to select their preferred mode.

6. With song style and mode selected, experimenter provided an accompaniment and improvised the melody after the subjects composed the lyrics.

7. The subject pairs heard the song played back on the tape.

8. The session ended with a processing procedure. The experimenter guided the child and mother in a discussion about the new song. Focus was on the lyrics and the role of both participants.

Post-Intervention. Dyads from the control and experimental groups were asked again to complete the FES/CVFES. The tests were identical to those taken at the first session. Upon completion, the subjects were thanked for their cooperation, given their tape, and the children received a certificate of appreciation from the researcher (see Appendix G).

#### Treatment of Data

The design of this study was The Pretest-Posttest Control Group Design (Campbell & Stanley, 1963, p. 13). The independent variable was song writing intervention. The three dependent variables were: (a) perceived family cohesion; (b) perceived family expressiveness; and (c)



perceived family independence. The descriptive statistical analysis technique was used to test the six hypotheses using six one-way analyses of covariance. The experimenter used the Statistical Package for the Social Sciences Version 10 (SPSSX) computer program MANOVA to obtain statistical results. A t-test for independent samples was used to confirm similarity of groups after the random assignment procedure. The SPSSX computer program T-TEST was used for this analysis.

## CHAPTER IV

### Results

#### Preliminary Data Analysis

Pre-test scores on the dependent variables (i.e., cohesion, expressiveness, independence) were analyzed using the t-test to determine if the control and experimental group mothers were similar prior to treatment. These results are summarized in Table 1. No significant difference was found between the groups confirming similarity on all three variables.

Children's control and experimental group pre-test scores were analyzed in the same manner. These analyses confirm similarity between the groups on the cohesion and independence variables. A significant difference was found between the control and experimental groups on the expressiveness variable. Since subjects were assigned to the groups randomly, this can probably be explained by the small size of groups. Pre-test scores on dependent variables were used as covariates in data analyses to compensate for any possible differences which might have existed between the groups. These data are summarized in Table 2.

Table 1

t-Test to Confirm Similarity between Groups of Mothers


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Variation	<u>N</u>	<u>X</u>	<u>SD</u>	<u>t</u>	<u>p</u>
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Pre Cohesion					
Exp. group	9	55.444	15.322	0.05	.964
Con. group	10	55.100	16.954		

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Pre Expressiveness					
Exp. group	9	58.333	8.846	1.17	.257
Con. group	10	54.200	6.460		

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Pre Independence					
Exp. group	9	40.889	11.900	0.52	.607
Con. group	10	43.800	12.255		

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Table 2

t-Test to Confirm Similarity between Groups of Children


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Variation	<u>N</u>	<u>X</u>	<u>SD</u>	<u>t</u>	<u>p</u>
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Pre Cohesion					
Exp. group	9	44.778	17.648	0.36	.724
Con. group	10	47.100	9.938		

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Pre Expressiveness					
Exp. group	9	46.111	12.180	2.46	.025*
Con. group	10	57.100	6.839		

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Pre Independence					
Exp. group	9	47.444	10.596	0.32	.751
Con. group	10	49.000	10.392		

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### Data Analysis

Six one-way analyses of covariance were performed on control and experimental group data. The data analysis representing mothers' perceived family cohesion is outlined in Table 3. Results indicate a significant difference was present between the control and experimental cohesion post-test scores. The group means for cohesion (experimental = 46.399; control = 60.557) show the control group perceived greater cohesion at the end of treatment than the experimental group. The data analysis representing children's perceived family cohesion is outlined in Table 4. Results indicate that no significant difference was present. The data analysis representing mothers' perceived family expressiveness is outlined in Table 5. Results indicate a significant difference was present between the control and experimental expressiveness post-test scores. The group means for expressiveness (experimental = 52.239; control = 59.527) show that the control group perceived greater expressiveness at the end of treatment than the experimental group. The data analysis representing children's perceived family expressiveness is outlined in Table 6. Results indicate that no significant difference was present. The data analysis representing mothers' perceived family independence is outlined in Table 7. Results indicate that

no significant difference was present. The data analysis representing children's perceived family independence is outlined in Table 8. Results indicate that no significant difference was present.

Table 3

One-Way ANCOVA for Mothers' Perceived  
Family Cohesion

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	949.372	949.372	6.858	0.019*
Within groups	16	2215.022	138.439		
Total	17	3164.394			

---

Table 4

One-Way ANCOVA for Children's Perceived  
Family Cohesion

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	0.915	0.915	0.010	0.921
Within groups	16	1425.982	89.124		
Total	17	1426.897			

---

Table 5

One-Way ANCOVA for Mothers' Perceived  
Family Expressiveness

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	232.802	232.802	5.040	0.039*
Within groups	16	739.077	46.192		
Total	17	971.879			

---



Table 6

One-Way ANCOVA for Children's Perceived  
Family Expressiveness

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	40.901	40.901	0.280	0.604
Within groups	16	2334.849	145.928		
Total	17	2375.750			

---

Table 7

One-Way ANCOVA for Mothers' Perceived  
Family Independence

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	3.786	3.786	0.018	0.894
Within groups	16	3336.699	208.544		
Total	17	3340.485			

---

Table 8

One-Way ANCOVA for Children's Perceived  
Family Independence

---

Variation	<u>df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
<hr/>					
Between groups	1	97.526	97.527	1.578	0.227
Within groups	16	988.689	61.793		
Total	17	1086.215			

---

## CHAPTER V

### Summary, Discussion, and Recommendations

The purpose of this study was to compare the effects of song writing versus no song writing on three family interaction variables (i.e., cohesion, expressiveness, independence) as measured by the Family Environment Scale (FES) and the Children's Version of the Family Environment Scale (CVFES). Scores on these variables were obtained from each mother and chronically ill child.

Nineteen chronically ill children, ages 5 to 12, and their mothers were assigned by coin toss to control (N=10) and experimental (N=9) groups. Experimental subjects attended eight sessions over a 30 day period. During this time, they were tested before and after they wrote six therapeutic songs. Control subjects were pre-tested and post-tested during the same time frame. The experimenter for the study was a Board Certified Registered Music Therapist, and all treatment sessions were conducted by this therapist. Testing and song-writing intervention took place in the subjects' living rooms.

Dependent measures for the study were the Family Environment Scale and the Children's Version of the Family

Environment Scale. The six therapeutic song topics included: (a) life at home, (b) who am I?, (c) all about my friends, (d) being sick, (e) being in the hospital, and (f) all about my family. The subject dyads selected their preferred song style (i.e., rock, ballad, and country-western) and mode (i.e., major, minor). In addition, with minimal assistance, they wrote the melody and lyrics for each finished product.

Six null hypotheses for the study were tested using one-way analyses of covariance from the Statistical Package for the Social Sciences--SPSSX. Results of these analyses can be summarized as follows:

H 1: No significant difference will exist in the  
0  
perceived family cohesion scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

H 3: No significant difference will exist in the  
0  
perceived family expressiveness scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

H 5: No significant difference will exist in the  
0  
perceived family independence scores as measured by the FES between the experimental (song writing) group mothers and the control (no song writing) group mothers.

Null hypotheses one and three were rejected because significant treatment effects were found at an alpha level of  $p \leq .05$ . Although these relationships were significant, the adjusted group means suggest a decline in the experimental group mothers' perceptions of family cohesion and expressiveness. It appears in a therapeutic sense that the song writing treatment caused the mothers perceptions of cohesion and expressiveness within the family to get worse. This raises questions regarding the mothers' cognizance of family cohesion and expressiveness prior to treatment and the mothers' response to the changed family perception. The beginning stage within the therapeutic process may indeed produce an instability within the family structure. This instability may lead to reorganization and insight within the family (Haley, 1980). Research is needed to clarify these questions. Hypothesis five was accepted because no significant treatment effects were found.

H 2: No significant difference will exist in the  
0  
perceived family cohesion scores as measured by the CVFES between the experimental (song writing) group children and the control (no song writing) group children.

H 4: No significant difference will exist in the  
0  
perceived family expressiveness scores as measured by the CVFES between the experimental (song writing) group children

and the control (no song writing) group children.

H 6: No significant difference will exist in the  
0  
perceived family independence scores as measured by the  
CVFES between the experimental (song writing) group children  
and the control (no song writing) group children.

These three hypotheses were accepted because no  
significant treatment effects were found.

The difference in findings between mothers and children  
is difficult to explain. It may be that the FES was more  
sensitive to family perceptions than the CVFES. Even though  
the CVFES was based on the FES, assessment of content  
validity regarding the stimulus pictures was in preliminary  
stages. These pictures could have been interpreted  
incorrectly by the children. Another possibility is that  
the children enjoyed and/or participated in the song writing  
sessions without processing the implications of the  
therapeutic procedure. The researcher anticipated a  
positive treatment effect with both the experimental group  
mothers and experimental group children. Any change within  
the families, whether positive or negative could also be  
related to the disruption of the family's routines to  
accommodate the song writing sessions. More research is  
needed to explain these findings.

The non-significant treatment effects could have been

attributed to several factors. Song writing may not be an effective treatment when working with families. The small number of subjects within the study may have decreased the power of the selected statistical procedure. The short period of time allotted to the therapeutic song writing procedure may not have allowed the families time to work through the problems presented within the sessions. Three families were referred for further counseling. And finally, the number and length of hospitalizations per family were not taken into account. Five children in the experimental group were hospitalized during the study as a result of acute asthmatic exacerbations. No children in the control group were hospitalized during this time.

Many subjects who participated in the treatment group stated verbally that they enjoyed the sessions. Several mothers indicated that they enjoyed working one on one with their children. They felt the experience was beneficial to their relationships. Because the children looked forward to the procedure, the mothers indicated that they did not regard it as an inconvenience.

It is important to realize comparisons were made in this study among mothers and among children. No attempt was made to compare family dyads. Mother with child comparisons were not made because the present study did not address



these questions. Research with the entire family would be valuable and interesting for the music therapy profession.

## References

- Ack, M. (1983). Psychosocial effects of illness, hospitalization and surgery. Children's Health Care, 11, 132-136.
- Adams, M. A. (1976). A hospital play program: Helping children with serious illness. American Journal of Orthopsychiatry, 46, 416-425.
- Anderson, S. V., & Bauwen, E. E. (1981). Chronic health problems: Concepts and application. St. Louis, MO: C. V. Mosby.
- Apprey, Z. R., & Apprey, M. (1975). Applied music therapy: Collected papers on a technique and a point of view. London, England, Great Britain: International University, Institute of Music Therapy and Humanistic Psychology.
- Bader, E. (1976). Redecisions in family therapy: A study of change in an intensive family therapy workshop (Doctoral dissertation, California School of Professional Psychology, 1976). Dissertation Abstracts International, 37, 2491B.
- Bailey, L. M. (1983). The effects of live music versus tape-recorded music on hospitalized cancer patients.

Music Therapy, 3, 17-28.

Bailey, L. M. (1984). The use of songs in music therapy with cancer patients and their families. Music Therapy, 4, 5-17.

Barrera, M., Sandler, I., & Ramsay, T. (1981). Preliminary development of a scale of social support: Studies on college students. American Journal of Community Psychology, 9, 435-447.

Batcheller, J., & Monsour, S. (1972). Music in recreation and leisure. Dubuque, IA: Brown.

Behrens, G. A. (1983). Music therapy and asthma in preschool handicapped children. Unpublished master's thesis, Kent State University, Kent, OH.

Belmont, H. (1970). Hospitalization and its effect upon the total child. Clinical Pediatrics, 9, 472-483.

Berger, K. S. (1983). The developing person through the life span. New York, NY: Worth.

Beverly, B. I. (1936). The effect of illness upon emotional development. The Journal of Pediatrics, 8, 533-543.

Bonny, H. L. (1983). Music listening for intensive coronary care units: A pilot project. Music Therapy, 3, 4-16.

- Bowen, M. (1978). Family therapy in clinical practice. New York, NY: Aronson.
- Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Boston, MA: Houghton Mifflin.
- Castell, K. C. (1982). Children's sensitivity to stylistic differences in "classical" and "popular" music. Psychology of Music [Special issue], 22-25.
- Castellano, J. A. (1969). Music composition in a music therapy program. Journal of Music Therapy, 6, 12-14.
- Chetta, H. D. (1981). The effect of music and desensitization on preoperative anxiety in children. Journal of Music Therapy, 18, 74-87.
- Christenberry, E. B. (1979). The use of music therapy with burn patients. Journal of Music Therapy, 16, 138-148.
- Christensen, B. (1977). A family systems treatment program for families of delinquent adolescent boys (Doctoral dissertation, Brigham Young University, 1976). Dissertation Abstracts International, 37, 6092A.
- Christman, C. (1967). Family group therapy: Implications for music therapy. Journal of Music Therapy, 4, 100-105.
- Cluff, L. E. (1985). Chronic disability of infants and

- children: A foundation's experience. Journal of Chronic Disabilities, 38, 113-124.
- Cooke, R. M. (1969). The use of music in play therapy. Journal of Music Therapy, 6, 66-75.
- Cowan, P. A. (1967). Piaget with feeling: Cognitive, social, and emotional dimensions. New York, NY: Holt, Rinehart and Winston.
- Croce, J. (Composer). (1971). Time in a bottle[song]. New York, NY: Denjac Music (ASCAP).
- Crowder, R. G. (1984). Perception of the major/minor distinction: I. Historical and theoretical foundations. Psychomusicology, 4, 3-12.
- Currant, N. (1985). The expansive educational value of puppets. Academic Therapy, 21, 55-57.
- Curtis, S. L. (1986). The effect of music on pain relief and relaxation of the terminally ill. Journal of Music Therapy, 23, 10-24.
- Dimock, H. G. (1960). The child in the hospital. Philadelphia, PA: F. A. Davis.
- Duvall, E. M. (1977). Marriage and family development (5th ed.). Philadelphia, PA: J. B. Lippincott.
- Fagen, T. S. (1982). Music therapy in the treatment of anxiety and fear in terminal pediatric patients. Music Therapy, 2, 13-23.

- Ficken, T. (1976). The use of songwriting in a psychiatric setting. Journal of Music Therapy, 13, 163-172.
- Friedman, S. B., Chodoff, J. W., Hamburg, D. H., & Mason, J. W. (1963). Behavioral observations on parents anticipating the death of a child. Pediatrics, 32, 610-625.
- Froelick, M. R. (1984). A comparison of the effect of music therapy and medical play therapy on the verbalization behavior of pediatric patients. Journal of Music Therapy, 21, 2-15.
- Gaston, E. T. (1968). Music in therapy. New York, NY: MacMillan.
- Gellert, E. (1958). Reducing the emotional stresses of hospitalization for children. American Journal of Occupational Therapy, 12, 125-129.
- Gilbert, J. P. (1977). Music therapy perspectives on death and dying. Journal of Music Therapy, 14, 165-171.
- Gofman, H., Buckman, W., & Schede, G. H. (1957). The child's emotional response to hospitalization. AMA Journal of Diseases of Children, 93, 157-163.
- Griffith, H. W. (1987). Complete guide to prescription & non-prescription drugs: Side effects, warnings & vital data for safe use. Tucson, AZ: H. P. Books.
- Gross, J. L., & Swartz, R. (1982). The effects of music

- therapy on anxiety in chronically ill patients. Music Therapy, 2, 43-52.
- Grout, D. J. (1973). A history of western music (2nd ed.). New York, NY: W. W. Norton.
- Haase, J. E. (1985). The components of courage in chronically ill adolescents: A phenomenological study (Doctoral dissertation, Texas Woman's University, 1985). Dissertation Abstracts International, 46, 1869B.
- Haley, J. (1980). Leaving home: The therapy of disturbed young people. New York, NY: McGraw-Hill.
- Haley, J., & Madanes, C. (1977). Dimensions of family therapy. Journal of Nervous and Mental Disease, 165, 88-98.
- Hazard, R. (Composer). (1983). Girls just want to have fun[song]. New York, NY: Heroic Music (ASCAP).
- Hobbs, N., Perrin, J. M., & Ireys, H. T. (1985). Chronically ill children and their families: Problems, prospects, and proposals from the Vanderbilt Study. San Francisco, CA: Jossey-Bass.
- Huttlin, E. J. (1982). A study of capacities in wind instrumentalists and vocalists (Doctoral dissertation, Michigan State University, 1982). Dissertation Abstracts International, 43, 301A.
- Hymovich, D. P. & Baker, C. D. (1985). The needs, concerns

and coping of parents of children with cystic fibrosis.

Family Relations, 34, 91-97.

Jackson, K., Winkley, R., Faust, O. A., & Cermak, E. (1952).

The problem of emotional trauma in the hospital treatment of children. Journal of the American Medical Association, 149, 1536-1538.

Jones, M. L. (1985). Home care for the chronically ill or disabled child: A manual and sourcebook for parents and professionals. New York, NY: Harper & Row.

King, E. H. (1980). Child rearing practices: Child with chronic illness and well sibling (Doctoral dissertation, Texas Woman's University, 1980). Dissertation Abstracts International, 41, 2969B.

King, J., & Ziegler, S. (1981). The effect of hospitalization on children's behavior: A review of the literature. Children's Health Care, 10, 20-28.

Krulik, T. (1980). Successful "normalizing" tactics of parents of chronically ill children. Journal of Advanced Nursing, 5, 155-165.

Kubler-Ross, E. (1969). On death and dying. New York, NY: Macmillan.

Kuchinsky, R. H. (1981). Music as an evaluative technique within normal family systems. Unpublished master's thesis, Hahneman Medical College, Philadelphia, PA.



- Langford, W. S. (1961). The child in the pediatric hospital: Adaptation to illness and hospitalization. American Journal of Ortho-psychiatry, 31, 667-684.
- Lawson, B. A. (1981). Chronic illness in the school-aged child: Effects on the total family. In S. A. VanDam & E. E. Bauwen (Eds.), Chronic health problems: Concepts and application (pp. 30-39). St. Louis, MO: C. V. Mosby.
- Liddle, H. A. (1983). Diagnosis and assessment in family therapy: A comparative analysis of six schools of thought. In J. C. Hansen & B. P. Keeney (Eds.), The family therapy collections: Vol. 4. Diagnosis and assessment in family therapy (pp. 1-34). Rockville, MD: Aspen.
- MacClelland, D. C. (1979). Music in the operating room. Association of Operating Room Nurses, 29, 252-260.
- MacLennan, B. W. (1949). Non-medical care of chronically ill children in hospital. The Lancet, 257, 209-210.
- Madanes, C. (1981). Strategic family therapy. San Francisco, CA: Joosey-Bass.
- Maier, H. W. (1965). Three theories of child development: The contributions of Erik H Erikson, Jean Piaget, and Robert R. Sears, and their applications. New York, NY:

Harper & Row.

Marks, M. B. (1974). Musical wind instruments in rehabilitation of asthmatic children. Annals of Allergy, 33, 313-319.

Marley, L. S. (1984). The use of music with hospitalized infants and toddlers: A descriptive study. Journal of Music Therapy, 21, 126-132.

Mattsson, A. (1972). Long-term physical illness in childhood: A challenge to psychosocial adaptation. Pediatrics, 50, 801-811.

May, B. K., & Sparks, M. (1983). School age children: Are their needs recognized and met in the hospital setting? Children's Health Care, 11, 118-123.

McCubbin, H. I., McCubbin, M. A., Patterson, J. M., Cauble, A. E., Wilson, L. R., & Warwick, W. (1983). CHIP--Coping health inventory for parents: An assessment of parental coping patterns in the care of the chronically ill child. Journal of Marriage and the Family, 45, 359-370.

McDonnell, L. (1984). Music therapy with trauma patients and their families on a pediatric service. Music Therapy, 4, 55-63.

McFadden, E. R. Jr. (1987). Asthma. In E. Braunwald, K. J. Isselbacher, R. G. Petersdorf, J. D. Wilson, &

A. S. Fauci (Eds.), Harrison's principles of internal medicine (11th ed., pp. 1060-1065).

New York, NY: McGraw-Hill.

McHugh, K. (1984). The impact of chronic childhood illness on the family as perceived by the mother. Unpublished master's thesis, Texas Woman's University, Denton, TX.

Mellencamp, J., & Green, G. M. (Composer). (1985). Rain on the scarecrow[song]. Secaucus, NJ: Warner Brothers & Riva Music.

Menke, E. M. (1981). School-aged children's perception of stress in the hospital. Journal of the Association for the Care of Children's Health, 9, 80-85.

Miller, R. (Composer). (1964). King of the road[song]. Nashville, TN: Tree.

Minuchin, S. R. (1974). Families and family therapy. Cambridge, MA: Harvard University.

Montessori, M. (1967). The absorbent mind. New York, NY: Holt, Rinehart and Winston.

Moos, R. (1974). Family environment scales (Research instrument). Palo Alto, CA: Consulting Psychologists Press.

Moos, R. (1974b). The social climate scales: An overview. Palo Alto, CA: Consulting Psychologists Press.

Moos, R., Finney, J., & Chan, D. (1981). The process of

recovery from alcoholism. I. Comparing alcoholic patients and matched community controls. Journal of Studies on Alcohol, 42, 383-402.

Moos, R., & Moos, B. (1981). Family environment scale manual. Palo Alto, CA: Consulting Psychologists Press.

Patterson, J. M. (1985). Critical factors affecting family compliance with home treatment for children with cystic fibrosis. Family Relations, 34, 79-89.

Patterson, J. M., & McCubbin, H. I. (1983). Chronic illness: Family stress and coping. In C. R. Figley & H. I. McCubbin (Eds.), Stress and the family: Vol. 2. Coping with catastrophe. New York, NY: Brunner/Mazel.

Pearse, M. (1977). The child with cancer: Impact on the family. The Journal of School Health, 47, 174-178.

Peters, J. S. (1987). Music therapy: An Introduction. Springfield, IL: Charles C. Thomas.

Pino, C. J., Simons, N., & Slawinowski, M. J. (1984). The children's version of the family environment scale. New York, NY: Slasson Educational.

Plach, T. (1980). The creative use of music in group therapy. Springfield, IL: Charles C. Thomas.

Plaut, T. F. (1983). Children with asthma: A manual for

parents. Amherst, MA: Pedipress.

Pless, I. B., & Douglas, W. B. (1975). Chronic illness in childhood: Epidemiological and clinical characteristics. Pediatrics, 47, 405-414.

Priestley, M. (1975). Music therapy in action. New York, NY: St. Martin's Press.

Reinhart, G. (1977). One-parent families: A study of divorced mothers and adolescents using social climate and relationship styles (Doctoral dissertation, California School of Professional Psychology, 1977). Dissertations Abstracts International, 38, 2881B.

Richie, L. (Composer). (1980). Lady[song]. Beverly Hills, CA: Brockman Music.

Ruppenthal, W. (1965). "Scribbling" in music therapy. Journal of Music Therapy, 2, 8-10.

Sagar, C. B., & Bacharach, B. (Composers). (1982). That's what friends are for[song]. Secaucus, NJ: Warner Brothers & Warner-Tamerlane.

Schwankovsky, L. M., & Guthrie, P. T. (1982). Music therapy for handicapped children: Other health impaired. Music Monograph Series of the National Association for Music Therapy (Grant No. G007091336).

Stanton, M. D. (1981). Strategic approaches to family therapy. In A. S. Gurman & D. P. Kniskern (Eds.),

- Handbook of family therapy (pp. 361-402). New York, NY: Brunner/Mazel.
- Stein, R. E. K., & Jessop, D. J. (1982). A noncatagorical approach to chronic childhood illness. Public Health Reports, 97, 354-362.
- Storr, A. (1975). Creativity in music. Psychology of Music, 3, 9-16.
- Travis, G. (1976). Chronic illness in children: Its impact on child and family. Stanford, CA: Stanford University.
- Tyson, F. (1981). Psychiatric music therapy: Origins and development. New York, NY: Fred Weidner and Sons.
- Venters, M. (1980). Chronic childhood illness, disability and familial coping: The care of cystic fibrosis (Doctoral dissertation, University of Minnesota, 1980). Dissertation Abstracts International, 41, 1234A.
- Waechter, E. H. (1979). The adolescent with a handicapping, chronic, or life-threatening illness. In R. T. Mercer (Ed.), Perspectives on adolescent care (pp. 123-148). Philadelphia, PA: J. B. Lippincott.
- Wolfe, D. E. (1978). Pain rehabilitation and music therapy. Journal of Music Therapy, 15, 162-178.
- Work, H. H. (1956). Making hospitalization easier for children. Children, 3, 83-86.

## Appendix A

### Initial Letter to Parents

Dear Parents,

This office is conducting a research project in conjunction with Texas Woman's University. Anita Greer, RMT-BC, a candidate for a Master of Arts Degree in Music Therapy, will be working with us to complete the project. Music therapy promotes the acquisition of non-music skills such as self-expression and creativity.

This study involves family interaction and music therapy. The maximum time commitment for each family is eight one-hour sessions with Ms. Greer over a one-month duration. The meeting times will be flexible to your schedule. The meeting place will be in your home. All information gathered will be confidential.

If your child is between the age of 5 and 12, and has been hospitalized at least once, we would like you to consider volunteering. This is a wonderful opportunity to spend some valuable structured time with your child.

Participants are needed for the study. If you and your child would like to participate in this study. Please return the bottom portion of this letter to the office as

soon as possible or call the office and leave a message with Gerry. We appreciate your help and speedy response.

Sincerely, Richard B. Silver, M.D.

\_\_\_ Yes, my child and I would like to participate.

Please contact me with more information.

\_\_\_ I am not sure.

Please contact me with more information about this study.

Parent's Name:

Child's Name:

Child's Age:

Work Phone Number:

Best time to be reached:

Home Phone Number:

Best time to be reached:



## Appendix B

### Telephone Explanation To Subject Main Caregivers

My name is Anita Marie Greer, and I am working in conjunction with Dr. Silver's office on a study involving chronically ill children, music therapy, and family interactions. I am a Board Certified and Registered Music Therapist working toward my Master's degree in music therapy at Texas Woman's University.

You may have received a letter enclosed in your last billing from Dr. Silver's office outlining some of the details of the study. The study involves family interaction and music therapy. The maximum time commitment for each family is eight one-hour sessions with me over a one-month duration. The meeting times will be flexible to your schedule. The meeting place will be in your home. All information gathered will be confidential.

When your child is hospitalized, which parent (you or your husband) would spend the most time caring for your child in the hospital? (If husband, ask to speak with him. Remainder of conversation is with main caregiver).

You and your son(child's name)/daughter(child's name) are being contacted because your child meets the

requirements needed for this study. Your child is between the age of 5 and 12, correct? (If yes, continue) He/she has been hospitalized at least once due to his/her asthma, correct? (If yes, continue) With the understanding that you and your child are under no obligation to begin or continue with this study, would you and (child's name) be willing to participate in this study? (If yes, toss coin, heads=control, tails=experimental)

Control Group (Heads):

Your time commitment to this study will include 2 one-hour sessions in your home. The sessions will be scheduled approximately 30 days apart. Both you and your son/daughter will need to be present. At both sessions, you will take a 90 statement paper and pencil test about family relationships. At both sessions, your child (child's name) will take a 30 statement paper and pencil test designed for children about family relationships. Both tests involve a low-risk factor and all information obtained will be confidential. Would you and your child be willing to participate in this study? (If yes, continue) I would like to set up a date and time for our first session.

Experimental Group (Tails):

Your time commitment to this study will include 8 one-hour sessions in your home. The sessions will be

scheduled approximately twice a week for one month. Both you and your son/daughter will need to be present. At the first and last session, you will take a 90 statement paper and pencil test about family relationships. At the first and last session, your child (child's name) will take a 30 statement paper and pencil test designed for children about family relationships. Both tests involve a low-risk factor and all information obtained will be confidential. The six intervening sessions involve song writing. You and (child's name) will work together with my guidance to create the words, melody, and music for a song on a topic I will supply at each session. These song-writing sessions will allow you and (child's name) to work productively together for approximately one-hour each session. Would you and your child be willing to participate in this study? (If yes, continue) I would like to set up a date and time for our first session.

## Appendix C

### Texas Woman's University Human Subjects Review Committee

#### Consent Form - Control Group

#### Consent to Act as a Subject for Research and Investigation:

The following information is to be read to or read by the subject. One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

1. I hereby authorize Anita Marie Greer to perform the following procedure: The experimenter will meet privately with each family dyad. Confidentiality of records identifying the subjects will be maintained at all times. The subjects will participate in a study about family relationships with a parent/guardian and a chronically ill child. The participants will take pencil and paper tests about family relationships.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Anita Marie Greer.

3. (a) I understand that the procedures or investigations described in Paragraph 1 involve the

following possible risks or discomforts: The participants will be involved in a low-risk pencil and paper test. It is possible that the participants will waste their time. (b) I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or child to productively work together. (c) I understand that - No medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

4. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. A description of the possible attendant discomfort and risks reasonably expected have been discussed with me. I understand that I may terminate my participation in the study at any time.

Main Caregiver's Signature	Child's Name and Age	Date
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## Appendix D

### Texas Woman's University Human Subjects Review Committee

#### Consent Form - Experimental Group

Consent to Act as a Subject for Research and Investigation:

The following information is to be read to or read by the subject. One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

1. I hereby authorize Anita Marie Greer to perform the following procedure: The experimenter will meet privately with each family dyad. Confidentiality of records identifying the subjects will be maintained at all times. The subjects will participate in a study about family relationships with a parent/guardian and a chronically ill child. The participants will write songs and take pencil and paper tests about family relationships.

2. The procedure or investigation listed in Paragraph 1 has been explained to me by Anita Marie Greer.

3. (a) I understand that the procedures or investigations described in Paragraph 1 involve the

following possible risks or discomforts: The participants will be involved in a low-risk pencil and paper test and music writing procedure. It is possible that the participants will disagree on the style of music to be selected. (b) I understand that the procedures and investigations described in Paragraph 1 have the following potential benefits to myself and/or others: The procedure will allow the main caregiver and the child to productively work together for approximately one hour each day. (c) I understand that - No medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

4. An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. A description of the possible attendant discomfort and risks reasonably expected have been discussed with me. I understand that I may terminate my participation in the study at any time.

Main Caregiver's Signature	Child's Name and Age	Date
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## Appendix E

TEXAS WOMAN'S UNIVERSITY  
Box 22939, TWU Station  
RESEARCH AND GRANTS ADMINISTRATION  
DENTON, TEXAS 76204

### HUMAN SUBJECTS REVIEW COMMITTEE

Name of Investigator: Anita Marie Greer Center: Denton

Address: P.O. Box 22255, TWU Station Date: 6-2-86

Denton, Texas

Dear Anita Marie Greer:

Your study entitled The Effect of Song Writing on Family  
Interactions With Chronically Ill Children and Their Main Caregivers

has been reviewed by a committee of the Human Subjects Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education, and Welfare regulations typically require that signatures indicating informed consent be obtained from all human subjects in your studies. These are to be filed with the Human Subjects Review Committee. Any exception to this requirement is noted below. Furthermore, according to DHEW regulations, another review by the Committee is required if your project changes.

Any special provisions pertaining to your study are noted below:

\_\_\_\_ Add to informed consent form: No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

\_\_\_\_ Add to informed consent form: I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

\_\_\_\_ The filing of signatures of subjects with the Human Subjects Review Committee is not required.

✓ Other: If as a result of the study, family problems surface, the investigator should do some extensive debriefing and appraise the family of available counseling resources.

\_\_\_\_ No special provisions apply.

cc: Graduate School  
Project Director  
Director of School or  
Chairman of Department

Sincerely,

*Jan S. Jeter*  
Chairman, Human Subjects  
Review Committee



Appendix F

TEXAS WOMAN'S UNIVERSITY  
DEPARTMENT OF MUSIC AND DRAMA  
DENTON, TEXAS 76204

AGENCY PERMISSION FOR CONDUCTING STUDY\*

THE Richard B. Silver, M.D., P.A., Pediatric Pulmonary Diseases

GRANTS TO Anita Marie Greer, RMT-BC

a student enrolled in a program of music therapy leading to a Master's Degree at Texas Woman's University, the privilege of its facilities in order to study the following problem:

The effect of song writing on Family Interactions with chronically ill children and their main caregivers.

The conditions mutually agreed upon are as follows:

1. The agency (may) (may not) be identified in the final report.
2. The names of consultative or administrative personnel in the agency (may) (may not) be identified in the final report.
3. The agency (wants) (does not want) a conference with the student when the report is completed.
4. The agency is (willing) (unwilling) to allow the completed report to be circulated through interlibrary loan.
5. Other \_\_\_\_\_

Date: 4-30-87

Richard B. Silver  
Signature of Agency Personnel

Anita Marie Greer  
Signature of Student

Nancy A. Hadwell  
Signature of Faculty Advisor

- \* Fill out and sign three copies to be distributed as follows:  
Original-Student; First copy-Agency; Second copy-TWU  
Department of Music and Drama.

Appendix G

Participation Certificate

The Research Project

SONG WRITING AND FAMILY INTERACTION

**Texas Woman's University**



presents this certificate to

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For Successful Completion and Distinguished Contribution  
to a Scholarly Endeavor

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DATE

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INVESTIGATOR