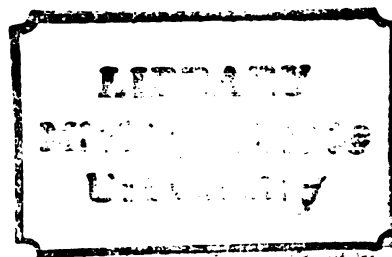


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A STUDY TO DESCRIBE THE PREDOMINANT EXPRESSED COPING
STYLES OF MOTHERS AND FATHERS OF CHILDREN WITH ASTHMA
AND TO DISCRIMINATE BETWEEN MOTHERS AND FATHERS OF
CHILDREN WITH ASTHMA BASED ON THEIR COPING STYLES
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By

Joan Therese Young

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE IN NURSING

College of Nursing

1982

ABSTRACT

A STUDY TO DESCRIBE THE PREDOMINANT EXPRESSED COPING
STYLES OF MOTHERS AND FATHERS OF CHILDREN WITH ASTHMA
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By

Joan Therese Young

Parents who have a child with a chronic illness must cope with concerns and problems that evolve on a daily basis. Little empirical research has focused on parental coping with childhood chronic illness. Thus, the problem under study was to identify the predominant expressed coping styles of parents who had a school-age child with asthma as well as to discriminate between mothers and fathers of asthmatic children based on their coping styles.

A volunteer sample consisted of 30 dyads who were biological parents of asthmatic children. Through mailed questionnaires, descriptive data was collected on the coping styles utilized by parents when faced with a chronically ill child. Predominant coping styles were identified in all parents through Z score calculations. Through discriminant function analysis it was demonstrated that fathers were differentiated from mothers based on their coping styles that were utilized to deal with their child's chronic illness.

ACKNOWLEDGMENTS

This research project could not have been completed without the innumerable words of encouragement and support of many people. To Sharon Parrott, R.N., Sara LeRoy, R.N., Yvonne Milton, R.N., Pamela Scofic, R.N., and Patricia Davison, R.N., a special thanks is offered because without their constant assistance with identification and contact of potential participants, this project would not have been possible. I am also grateful to Rob Hymes for his expertise and patience in explaining the statistical analysis.

A sincere thanks is extended to my committee members: Barbara Given, Ph.D., Chairperson, Patricia Peek, M.S., Brigid Warren, M.S.N., Bonnie Elmassian, M.S., and Jane Elzerman, M.S.N., for their constant understanding, support and encouragement throughout my thesis endeavor. A special thanks to Patricia Peek, M.S. who identified many participants for the study.

I am especially grateful to my parents, Marjorie and Arthur Zimmer, and family for their love and unfailing support throughout my nursing career. Finally, my deepest appreciation is extended to my husband, Dan, whose constant vigil of love, support and trust in me has facilitated my success in my graduate education.

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CHAPTER I

THE PROBLEM

Introduction

A child who develops asthma is forced to live with a chronic illness which necessitates long-term therapy. Often the child's management program requires taking oral medication or respiratory inhalants on a daily basis to control symptoms such as, a cough, rhinorrhea, or wheezing and possibly routine immunotherapeutic injections to desensitize the body to allergens. Because of the chronicity of the illness which affects the child physically, emotionally, socially, and developmentally, the mother, father, and the child must cope with all of these dimensions on a daily basis. The frequent reminders of the chronic illness, medications or an exacerbation of the illness such as an asthmatic attack, seem to have a frequent disintegrative effect on the family system (Magrab, 1978). A study on the impact of chronic illness on the family found that parental worries and family discord were prevalent. Financial difficulties, fatigue, sibling neglect, inability to find babysitters for the chronically ill child and interference with social life activities were a few of the problems that parents encountered since having had a chronically ill child living at home (Pless & Satterwhite, 1976). These

daily problems that parents must encounter with their chronically ill child are one source of stress that can alter their life style. Each parent must comprehend these new circumstances and adapt to them by making suitable role changes, despite the reluctance to do so. If stress is great enough and sufficiently prolonged due to these new circumstances, the role of a family as a buffer for its members to return to a steady state can be permanently impaired or destroyed. To prevent this impairment or destruction, more information about effective individual and family coping must be obtained and guidance given by health care providers to improve this coping (Kaplan et al., 1973).

Each parent has diverse backgrounds with a unique state of emotional and mental health as well as emotional readiness for parenting, individualized capacity for loving, and their own expectations concerning the role of the mother and father (Kapotes, 1977). Because of the individualism, parents may cope differently in similar situations. One parent may be overprotective and the other parent may be underprotective. Some parents may cope similarly with their child's chronic illness by both of them being overprotective of the child, by restricting his or her physical activities or attendance in school (Rees, 1963). The overprotectiveness may not allow the child to achieve normal independence and the child may not be able to achieve the developmental tasks that need to be accomplished during the childhood years, such as developing

peer relationships and participating in group activities (Steele, 1977). The individual's developmental tasks are tasks that arise at a critical time in an individual's life. If the developmental task is not successfully completed at the critical time, the child may have difficulty achieving subsequent tasks. By restricting the child in achieving his developmental tasks through overprotectiveness, this action will foster dependence on the parent. This, however, may be the only way for the parent to cope with the chronic illness of the child.

Most of the psychosocial literature in regard to asthma in a child alludes to a "mother-child" relationship (Burton, 1975; Mattson, 1972; Pless & Pinkerton, 1975; Rees, 1963; Sandler, 1977). The father's role is rarely discussed in the research literature of asthma. The role of the mother has been related to children's health. Because the health professional has become more consciously aware of the effects of the psychological stressors on an individual, the mother's role has been recently viewed to encompass the physical health as well as the psychologic well-being of the child (Steele, 1977). In the literature it has been cited that mothers feel they have the responsibility of caretaker of the child (Burton, 1975). Reddihough et al. (1977) showed that mothers did not feel that fathers shared the "nighttime vigil" when the chronically ill child had an exacerbation during the night. They also noted that family members in general,

including the fathers, bore little responsibility for their child's illness, such as, administering medications, making decisions on attending school, the amount and duration of the child's physical activity, and when to take the child to the physician.

Burton (1975) states that little is known about the father's responses to his child's chronic illness. In Burton's study (1975) it was also noted that because the father was the financial provider for the family, he could not afford to take time off from work to take his child to the physician. This was especially true for families of lower socioeconomic status because of inflexible work hours. A father of a higher socioeconomic status had more flexible hours with employment so that he could leave work to take his child to the physician. Both of these circumstances could have an effect on the parents' coping styles with the child's chronic illness. Thus, there may be socioeconomic differences in the father's manner of coping. Burton (1975) also stated that if a father's attitudes are less positive this can prejudice the mother's ability to cope.

In Kapotes' (1977) study it was noted that in the two-parent home, the mother seemed to be more overt, involved and intense in terms of demonstrating her feelings and attitudes. Since each parent is involved in the management of their child's illness, be it covertly or overtly, it is imperative to know the coping mechanism being utilized so that the nurse

can assist the parent in employing the most effective and adaptive coping strategy. Assessment of each family member's coping style relative to the child's chronic illness is necessary prior to intervention in order to establish a baseline from which to suggest strategies for enhancing coping (Hymovich, 1979).

In Folkman and Lazarus' study (1980) gender influence on coping was examined with little confirmation for gender differences. Folkman and Lazarus (1980) stated that the differences in coping are attributable to sources of stress, such as, stressors related to family, work or health concerns and not to gender.

Purpose of This Study

The research on individual coping styles of a mother and father who have an asthmatic child has dealt with parental coping in general, not with the individualized coping that a parent utilized over time. Research literature has recently emphasized the need to assess not only the mother's coping style with her asthmatic child but also to assess the father's coping style with this chronic illness as well. The purpose of this study is to provide descriptive data on the predominant coping style utilized by each parent of a child with asthma as well as to discriminate between mothers and fathers on the basis of their coping styles in relationship to the child's chronic illness.

Statement of the Problem

What is the predominant expressed coping style of the mother and the predominant expressed coping style of the father when their child has a chronic illness?

Research Subquestions

1. Which individual coping style contributes most to the total coping style of the mothers and to the total coping style of the fathers when they have a chronically ill child?
2. Is it possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping styles (total) through the five variables, vigilant focusing, minimization, capitulating, tackling and avoiding simultaneously?

Hypotheses

1. Given minimization, tackling, capitulating and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, vigilant focusing.
2. Given vigilant focusing, tackling, capitulating and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, minimization.

3. Given capitulating, avoiding, vigilant focusing and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, tackling.
4. Given tackling, avoiding, vigilant focusing and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, capitulating.
5. Given tackling, capitulating, vigilant focusing and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, avoiding.

Definition of Concepts

Coping Style

Coping style is an individual's consistent mode of functioning to deal with challenges and stressors during the individual's lifetime. This mode of functioning includes the predominant use of certain defense mechanisms and manifestations of the individual's cognitive and perceptive styles. Coping styles are affected by an individual's cognition or behavior in response to a stressor (Lipowski, 1970). Coping may be evaluated by its effectiveness or ineffectiveness

depending on its appropriateness to the individual's age and situation, as well as its ability to achieve maximum possible function or compensation (Dwyer, 1979). Coping styles may be used individually, consecutively, or in various combinations (Moos & Tsu, 1977).

Cognitive Coping Styles

Cognitive coping style is a characteristic way of perceiving, thinking and problem-solving that is used by an individual in response to an illness. Examples of cognitive coping styles are vigilant focusing and minimization (Lipowski, 1970).

Vigilant focusing. Vigilant focusing is defined by Lipowski (1970) as an energetic response to perceived signals of danger and persistent attempts to reduce uncertainty and ambiguity about all aspects of the illness. Individuals who tend to use this style of coping are noted to be obsessional, alert, anxiety-prone and intellectualizing (Lipowski, 1970). Vigilant focusing can be considered a continuum in which hypervigilance and exaggerated bodily threats are at one end of the continuum and realistic recognition of threats in an illness, tasks, and rational planning are at the other end of the continuum (Lipowski, 1970).

Minimization. Minimization is an inclination to ignore, deny or rationalize significant personal information related to one's illness and its consequences (Lipowski, 1970). Minimization can be viewed as a continuum with total denial

and reasonable doubt at opposite ends of this continuum (Lipowski, 1970).

Behavioral Coping Styles

Behavioral coping style is the predominant habitual mode of acting which an individual may use in response to an illness. These action tendencies may be altered by intrinsic factors in the individual's current psychological state or by other situational variables. Tackling, capitulating, and avoiding are examples of behavioral coping styles (Lipowski, 1970).

Tackling. Tackling is choosing an active attitude toward challenges and tasks posed by an illness or disability. Tackling can be seen on a continuum with one end being the individual having to "fight" illness at any cost. At the other end of the continuum the individual will display rational activity related to the demands of the illness, recovering from the illness or compensating for any residual disability from the illness (Lipowski, 1970).

Capitulating. Capitulating is defined by passivity and withdrawal from or dependent clinging to others. Individuals that use this coping style demonstrate little initiative or action to fight illness and achieve maximum possible recovery. Capitulating should not be confused with periods of passivity in the service of recovery (Lipowski, 1970).

Avoiding. Avoiding is an active attempt to escape from the demands of illness. This behavioral coping style is

often used by individuals who cannot accept the sick role or have their child accept the sick role as it is a threat to their self-image (Lipowski, 1970).

Chronic Illness

Chronic illness comprises all impairments or deviations from normal which have one or more of the following characteristics:

1. is permanent
2. leaves residual disability
3. is caused by nonreversible pathological alteration
4. requires special training of the patient for rehabilitation
5. may be expected to require a long period of supervision, observation or care (Commission on Chronic Illness, 1957).

Asthma, the chronic illness under study, is a disease characterized by an increased responsiveness of the trachea and bronchi to various stimuli and manifested by a widespread narrowing of the airways that changes in severity either spontaneously or as a result of treatment (American Thoracic Society, Committee on Prognostic Standards, 1962).

Extraneous Variables Effecting Study Outcomes

Development Level of the Child

There are a few extraneous variables that will impose limitations on the outcome of this study. The first extraneous

variable, the developmental level of the child, varies greatly during the childhood years depending on the age and maturational level. Because of this difference and the altered affects on coping that these stages may have on the parents, the study included only parents of children between 5-10 years of age. At this level the child is developing a sense of industry versus feelings of inferiority (Erikson, 1963). Due to the anxiety that parents may experience because of not knowing when their child may have an exacerbation of the asthma, they may cope by being overprotective of their child. This overprotectiveness may severely handicap the child's sense of industry that the child needs to successfully accomplish the developmental tasks in order to proceed with satisfaction to the next developmental stage (Abramson et al., 1977; Reddihough et al., 1977). Since developmental tasks may have an effect on parental coping with asthma, the developmental tasks for the school-age child will be assessed through the collection of data.

Number of Years Since the Child
Had Been Diagnosed With Asthma

Assumptions have been made in the literature of how parents initially cope with a chronic illness which is usually denial (Burton, 1975), but assumptions have not been made in the literature on parental long-term coping with a chronic illness. Many children with asthma are diagnosed in early childhood (Clark & Godfrey, 1977). Because the length of

time since the child was diagnosed as having asthma may affect parental coping, information in regard to onset of asthma will be obtained so that comparisons can be made at the statistical level in regard to further differences in parental coping styles and length of illness.

Assumptions

In this study the researcher is making the following assumptions:

1. It is assumed that all parents are coping behaviorally and cognitively with their child's chronic illness.
2. It is assumed that the responses by each mother and father are real and honest.
3. It is assumed that each parent will be able to read and understand each instrument.
4. It is assumed that each parent will know if the child can perform certain developmental tasks for the specific age group.
5. It is assumed that the relationship between the coping style of the mother and father can be measured.
6. It is assumed that the testing instrument is sensitive to differences between the mother and father.
7. It is assumed that the questions of the Parent Coping Profile measure the actual behavioral and cognitive coping styles of the mother and father.
8. It is assumed that the mother and father will not discuss any part of the instruments while responding to the questions.

Limitations

In this study the researcher has identified the following limitations:

1. The subjects who agree to participate in the study may be different from the subjects who refuse to participate in the study. Therefore, the research findings may not be representative of all parents coping with the chronic illness of their child.
2. The mailed questionnaires will be completed in the home where the parents have the opportunity to discuss the instruments.
3. An individual's coping style can change over time or with different situations. Therefore the findings in this study may not reflect the coping style of the same participating parents at another point in time.
4. In this study the researcher is not assessing the parent for possible major stressors in the environment that may influence the coping style utilized.
5. Due to the small sample size and convenience sample used in this study, the findings from this study may not be generally applicable to a larger population but only to this group of parents under study.
6. Due to the researcher developing the Parent Coping Profile, reliability and validity have not been established prior to this study.

Overview of the Chapters

This research study is presented in its entirety in six chapters. An introduction, a statement of the problem, the hypothesis, definitions of concepts, assumptions and limitations of the study are presented in Chapter I.

In Chapter II the conceptual framework of the nursing process is presented as it relates to parental coping with a chronically ill child.

In Chapter III a review of the literature that is pertinent to this research is presented and critiqued.

In Chapter IV the research design, methodology and procedures utilized in this study are described.

In Chapter V the description of the data and data analysis are given and discussed.

In Chapter VI a summary interpreting the research findings, conclusions, recommendations and nursing implications of this study are presented.

CHAPTER II

CONCEPTUAL FRAMEWORK

Introduction

Remarkably, little empirical effort has focused on parental coping with childhood chronic illness or the affects of chronic illness on family dynamics. Since a major objective of the nursing profession is to assist an individual to adapt to stressors, such as those stressors posed by a chronically child, the nurse must become cognizant of the unique difficulties associated with parenting an ill child. The amount of energy expended by a parent of a healthy child to merely comply with health maintenance activities (e.g., preventative dental exams, physical exams, eye exams, and immunizations) is staggering. Besides these health maintenance activities, imagine the tasks that must be accomplished by parents who are faced with a chronically ill child--many of them on a daily basis. These parents are continually reminded about their child's chronic illness by daily medications; special treatments which must be administered and are usually delegated to the parent; incessant visits to the health care provider; voluminous medical bills which usually include emergency room fees, clinic and hospitalization fees, and costs of medications. These parents must also adjust to

having a child who may miss school due to sickness which alters the equilibrium in the family; e.g., the employed mother must stay home from work to care for the sick child or find a babysitter at the last possible moment who is willing to care for the child. Needless to say the constant worry these parents face knowing that the next phone call may be about an exacerbation of their child's chronic illness by itself is a constant stressor. These burdens obviously affect how a parent copes with the child's chronic illness.

Mothers of chronically ill children have frequently complained that they are the sole health care provider for the tasks posed by the child's chronic illness. These mothers have indicated that the "night-time vigil" during an exacerbation of the child's illness, taking the child to the doctor for routine visits as well as illness-related visits, administering medication and contacting the school in regard to the child's illness are some of the many responsibilities dealt with on a daily basis (Burton, 1975; Kruger, 1980; Reddihough et al., 1977).

Fathers of chronically ill children have frequently been ignored in research literature. When discussed, fathers are often projected as lacking involvement in illness care and decision-making in relationship to the child's chronic illness (Burton, 1975; McCollum, 1975; Reddihough et al., 1977; Travis, 1976). McCollum (1975) indicated that our society's traditional system of communication about the ill child which

usually involves the doctor-mother-child may have precipitated the father's exclusion from a meaningful role in the child's care. Clearly, empirical data must be obtained to validate what we assume to be true--that fathers are exposed to the same burdens that mothers must face on a daily basis when their child is chronically ill. Nursing professionals need to be sensitive to the responses that mothers as well as fathers utilize to cope with their child's chronic illness so that nursing can more effectively assist parents to adapt to the stressors of the chronic illness.

The primary purpose of this study is to assess the coping styles of mothers and fathers who have a school-age child with the chronic disease, asthma. The outcome of this study is to provide descriptive data on the predominant coping style utilized by each parent when faced with a chronically ill child as well as to discriminate between mothers and fathers on the basis of their coping styles. These outcomes will allow nursing professionals to become more cognizant of the different coping styles utilized by parents of chronically ill children. Through this knowledge nurses can help parents to understand the normative process of coping in relationship to their chronically ill child.

Therefore, the conceptual framework for this study draws upon coping theory and the impact of a school-age child's asthma on the predominant parental coping response of the mother and father.

Conceptual Framework

An adaption of Moos and Tsu's (1977) model of coping and Rogers' (1970) model of nursing will be utilized to develop the conceptual framework for this study. Moos and Tsu's framework is based on the crisis of a physical illness. It is important to note that Moos and Tsu's theory can be useful in the situation of chronic illness because of the constant adaptive responses and coping that a person with a chronic illness or a parent with a child that has a chronic illness must experience on a daily basis. These models and concepts will be presented in detail in the subsequent sections in this chapter.

Factors Influencing Cognitive, Appraisal, Adaptive Tasks and Coping Styles

According to the adaptation of Moos and Tsu's model developed for this study (Figure 1), there are four factors that influence the cognitive appraisal of the chronic illness, the perception of adaptive tasks and the selection of relevant coping styles utilized by the parent when coping with a child's chronic illness. These factors are the child's developmental level, the parents' background and personal factors, the parents' illness-related factors and environmental and social factors. The parents' cognitive appraisal of the child's illness along with the adaptive tasks influence the predominant coping style utilized by parents. The coping style thusly can be supported and/or altered in order

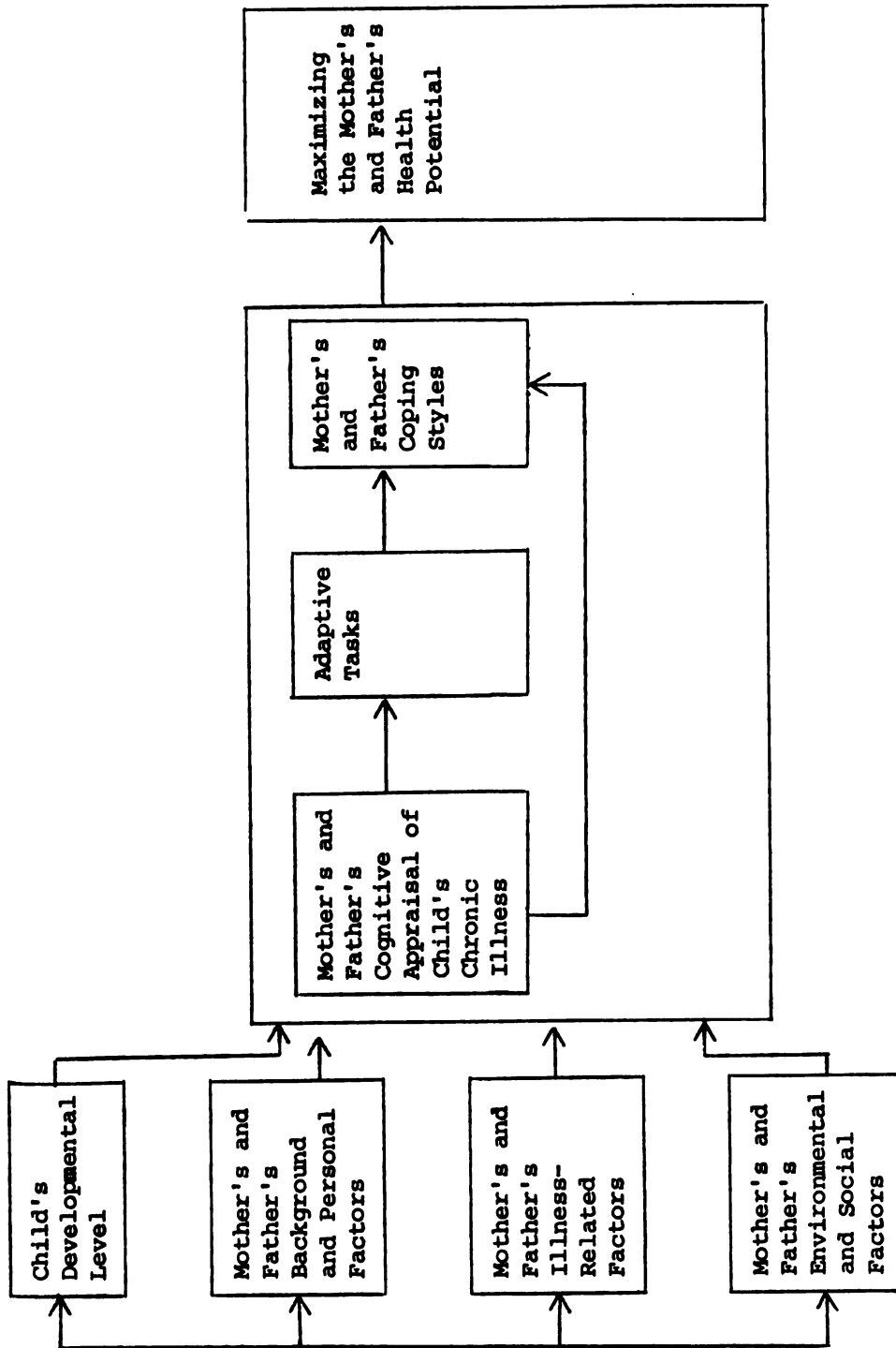


Figure 1. Coping with Physical Illness. Adapted from Rudolf Moos and Vivien Tsu, Coping with Physical Illness, 1977.

to maximize the health potential of mothers and fathers when faced with a child with a chronic illness.

Child's Developmental Level. The developmental tasks of the child is based upon Erikson's eight stages of life in human psychosocial development and has been adapted in this model (Erikson, 1963). The school-age child in this study is in the industry versus inferiority stage when the child's primary aim is productivity by steady attention and pre-serving diligence (Erikson, 1963). Freiberg (1979) indicated that the child strives to bring a productive situation to completion which gives the child pleasure and pride in the accomplishment. Parents can be very influential in developing or negating the sense of industry. As the child enters school he/she has many opportunities to compete for recognition, be it school activities or extracurricular activities. Because the chronically ill child frequently misses days of school the parent often must help the child to barely keep up with his/her school work rather than compete for an award for a school project.

The school-age child has many opportunities to join organized clubs, such as Boy and Girl Scouts as well as sports which yield recognition for the child through pins, trophies, and awards. In group sports children work together to achieve a common goal and the group can share in the accomplishment of victory. Parents of chronically ill children may perceive these activities as strenuous, which may precipitate an

exacerbation of the illness. This often reflects the coping style utilized by the parent to cope with the child's chronic illness. Ultimately, the long term effect can be seen in the child's increasing difficulty in meeting the critical developmental tasks of the school-age period.

Background and Personal Factors. These factors include age, education, intelligence, occupation, income, values, beliefs, emotional state, and cognitive capacity before or at the onset of the illness and throughout its duration (Lipowski, 1970; Moos & Tsu, 1977).

Illness-Related Factors. These factors include type and location of symptoms, whether painful, disabling or in a body region with special importance, in this instance, the respiratory system. The degree of reversibility and other aspects of the pathological process and functional impairment are also included in illness-related factors (Lipowski, 1970; Moos & Tsu, 1977).

Physical and Social Environmental Factors. These factors are made up of surroundings of the individual, such as, the home, hospital, clinic, or work environment. These factors also include the type of relationships the parents have with the family and significant others in these environments (Moos & Tsu, 1977).

Cognitive Appraisal of the Illness and Adaptive Tasks

In Figure 1 cognitive appraisal is the mother's or father's evaluation of the significance of the child's chronic illness. Through this cognitive appraisal, the parent encounters a set of adaptive tasks to which various coping styles are applied. While these adaptive tasks are considered beyond the scope of this study and will not be operationalized, they are listed in Figure 2 and will be discussed only on a theoretical base. These seven tasks are usually encountered with every illness but their importance does vary depending on the nature of the disease, the individual's personality, and the environmental circumstances.

Illness-related

1. Dealing with pain and incapacitation
2. Dealing with the hospital environment and special treatment procedures
3. Developing adequate relationships with professional staff

General

4. Preserving a reasonable emotional balance
5. Preserving a satisfactory self-image
6. Preserving relationships with family and friends
7. Preparing for an uncertain future

Figure 2. Major Set of Adaptive Tasks. By Rudolf Moos and Vivien Tsu, Coping with Physical Illness, 1977.

The first set of adaptive tasks deals with the discomfort, incapacitation, and other symptoms associated with a chronic illness (Moos & Tsu, 1977). This has been documented with mothers of children with a chronic illness in which they began to have somatic symptoms in response to the child's chronic illness (Green, 1975).

The second set of adaptive tasks deals with certain treatments or technical environments such as the clinic or hospital setting (Moos & Tsu, 1977). Parents frequently have difficulty adapting to their child being hospitalized and subjected to specialized equipment (Barmettler & Fields, 1976; Clark & Godfrey, 1977; Kapotes, 1977; Sandler, 1977). It even seems to be difficult for parents to submit their children to have allergy injections on a weekly basis especially if the child is upset about the injections.

The third set of adaptive tasks consists of forming and maintaining sufficient relationships with providers and other staff (Moos & Tsu, 1977). Some parents are angry with the diagnosis of a chronic illness and they blame the physician which does not foster a healthy client-provider relationship (Battle, 1975; Sandler, 1977).

The fourth set of adaptive tasks consists of maintaining an adequate emotional balance in relation to a chronic illness. This may occur as the parent blames himself for the chronic illness in the child or has feelings of failure with his family (Barmettler & Fields, 1976; Moos & Tsu, 1977; Kapotes, 1977).

The fifth set of adaptive tasks is preserving a sufficient self-image. If parents feel their child cannot physically perform in sports, their self-image may be altered because they may feel they are not adequate parents (Barmettler & Fields, 1976).

The sixth set of adaptive tasks involve maintaining family and friend relationships (Moos & Tsu, 1977). Parents may feel isolated from social relationships because they do not want to leave their child with a babysitter or take the child to a friend's house for fear the child may have an asthmatic attack (Pless & Satterwhite, 1976). This sense of alienation often disrupts these close relationships.

The seventh set of adaptive tasks attempts to prepare the parent for an uncertain future (Moos & Tsu, 1977). This task is necessary so the parent will be somewhat ready for any changes that may occur in their child due to the deterioration that is associated with a chronic illness.

These major adaptive tasks are experienced by all persons with a serious physical illness and also the family members of the ill persons. Through the parents' cognitive appraisal of the chronic illness, the adaptive tasks are utilized to which various coping styles can be applied (Moos & Tsu, 1977). These styles may be used individually or in various combinations (Moos & Tsu, 1977). This study is focusing on the predominant coping style elicited by the mother and father when coping with their child's chronic illness.

Coping Styles

As can be seen from the model the foregoing adaptive tasks influence coping styles. Coping styles refer to any response to external life strains, such as a chronic illness, that serves to prevent, avoid or control emotional distress (Pearlin & Schooler, 1978). Shapiro (1965) defined coping style as an enduring mode of functioning which can be identified in an individual through a range of his specific attitudes and acts. In the present context, it is assumed that parents tend to display their coping styles in characteristic ways of perceiving, thinking, problem-solving and acting as they become involved with their child's chronic illness. For the purposes of this study categories of cognitive and behavioral coping styles will be described in order to expand the conceptual framework presented thus far.

Cognitive coping style characterizes the individual's cognitive functioning and is discernible in his perceptual and intellectual activities (Witkin & Oltman, 1967). The parent will utilize a characteristic way of perceiving, thinking and problem solving on a cognitive level in response to the child's chronic illness.

Vigilant focusing, a cognitive coping style, is an energetic cognitive response to perceived signals of danger and persistent attempts to reduce uncertainty and ambiguity in an illness. Persons using this style will seek out new information which will help them understand the illness.

Parents who are feeling helpless and useless may find that information seeking gives them something to do and restores a sense of having some control (Moos & Tsu, 1977). This often relieves anxiety that may be caused by misconceptions or uncertainties. A mother or father may seek further information about the child's illness to allay fears of guilt for being responsible for the child's illness (Debuskey, 1970; Moos & Tsu, 1977). The parent may scrutinize magazine or newspaper articles to find more information about the illness or treatment.

Minimization, the other cognitive coping style, is characterized by ignoring, denying or rationalizing significant personal information about the illness and its consequences (Lipowski, 1970). The actual extent to which minimization is utilized varies with different individuals and at different stages of the illness, such as an individual newly diagnosed with an illness in contrast to the individual having a chronic illness for several years. It has been noted that some individuals prefer to use this mode of coping regardless of the nature and severity of the illness (Lipowski, 1970). This coping style may be seen when a parent rationalizes that the child will get better from his illness without medical treatment.

Behavioral coping style is the habitual mode of acting which an individual or significant other may use to respond to an illness. In contrast to cognitive coping styles, these

behavioral styles employ active tendencies of the individual or significant other instead of intellectual processes.

Tackling implies an active attitude toward challenges and tasks that accompany an illness. In tackling a parent may encounter a tendency to fight the illness at any cost or may rationally act to the current demands of the illness. This style may be seen when the parent learns specific illness-related procedures such as learning to give adrenalin injections to the child in acute asthmatic attacks. Parents usually find relief in being able to offer concrete help to the child (Moos & Tsu, 1977).

Capitulating is characterized by passivity and withdrawal from or dependent clinging to others. A degree of passive giving in by a parent can be an effective way of coping in the early stages when dealing with a chronically ill child. Parents utilizing this behavior will show little observable initiative or action to combat the child's chronic illness. In acute stages of the illness this form of behavior may be most adaptive but if used over a long period of time, the child will not have the guidance or care needed for the chronic illness (Lipowski, 1970).

Avoiding, the third behavioral coping style, is an active attempt to get away from the illness. This style is seen in parents of children with chronic illness when they attempt to seek separation or divorce during the time of the child's illness (Steinhauer et al., 1974). This style may also be

seen when the parent disbelieves in the diagnosis and may "shop around" for an additional medical opinion to disprove the initial diagnosis (Mattson, 1972). This behavior is usually seen among the parents for whom acceptance of the sick role of the child signifies a severe threat to the parents' self-image of independence and invulnerability (Lipowski, 1970).

It is clear that the determinants of coping are multifactorial. As mentioned previously, intrapersonal factors, such as age, personality, intelligence, values, beliefs and timing of illness in the life cycle may affect the particular coping style utilized by the parent. Physical illness of the parent during childhood or adolescence may alter how he/she will cope as an adult due to the potential inability to gain independence or establish a personal identity in the early years of life (Lipowski, 1970). Environmental factors may also influence the parent's mode of coping as well as disease related factors such as the onset of the child's disease and the degree of reversibility. It should be clear that because of the innumerable variables that can occur, responses to a child's chronic illness by the parent may be quite variable.

The outcome of Moos and Tsu's model was adapted for nursing in order to demonstrate the potential for assisting the parents in meeting their maximum health potential. Through future nursing research effective coping styles of parents may be identified that will allow nurses to counsel

parents to cope more effectively with stressors in their lives, including complications that accompany the child's chronic illness.

In summary, according to Moos and Tsu's model (Figure 1) the researcher is primarily collecting descriptive data on the parent's perception of the child's developmental level, background and personal factors of the parent, illness-related factors of the parent and social and environmental factors of the parent besides collecting data on the coping styles of the parent.

Relationship of the Study Variables to Nursing

Rogers (1970) believes that maximizing the health of an individual is nursing's major goal. Referring to Figure 3 the following narrative will describe the model. Rogers (1970) lists five specific nursing goals: (1) maintenance and promotion of health, (2) prevention of disease, (3) nursing diagnosis, (4) intervention, and (5) rehabilitation. In this model the researcher will only be gathering data on the expressed coping styles of parents who have an asthmatic school-age child. It is beyond the scope of this study to identify the effectiveness or ineffectiveness of the predominant coping style utilized by the parent. Hopefully, through future nursing research, nurses will be able to identify effective and ineffective coping styles of parents who have a chronically ill child so that counseling strategies

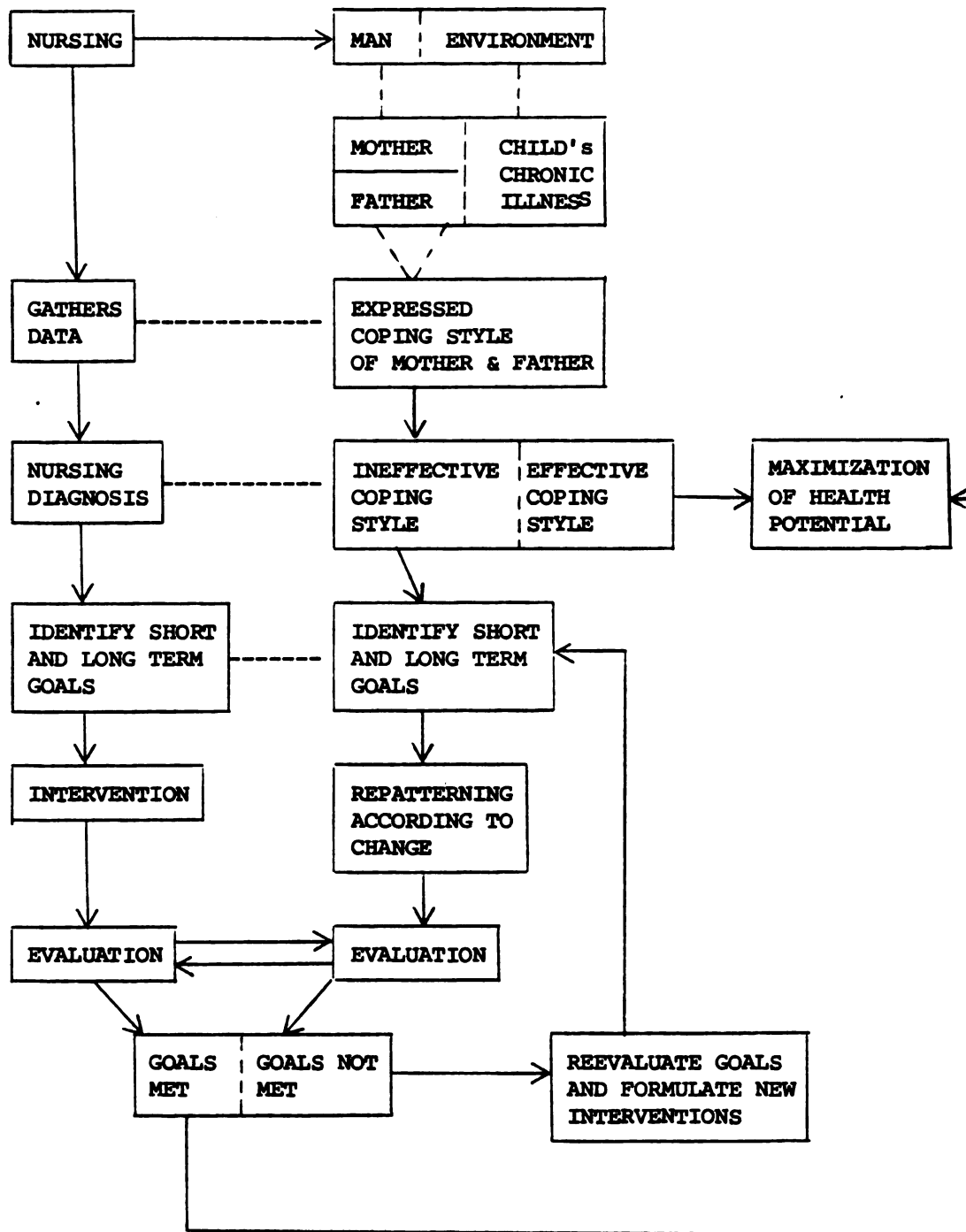


Figure 3. Theoretical Nursing Model. Adapted from Patricia Bednarz's thesis, The Marital Dyads Perception of the Impact of a Mastectomy on Family Functioning Eight to Sixteen Weeks Post-surgery (1980) based on Martha Roger's Theoretical Basis of Nursing (1970).

can be utilized to support and/or alter the coping style to maximize their health potential.

According to Rogers' theory of nursing, man is central to the nursing process. Rogers (1970) describes man as a unified whole which is more than and different from the sum of its parts. Man is seen as a sentient being and is combined with his environment as one and as open systems which are continuously exchanging energy. Man's life process is unidirectional along a space-time continuum which reflects change in life. The interaction between man and environment may lead to accelerating or decelerating the change along the continuum. To further understand man, Rogers (1970) states that all living things including man are composed of an energy field which imposes patterning and organization, which is in a constant process of evolution. As change occurs new patterns emerge in man and the environment. Through man's self-regulating ability he is able to maintain himself and achieve an increasing complexity of organization. Through self-regulation, man is directed toward fulfilling the potentials of life, such as maximizing his health potential. Rogers (1970) implies that health and illness are expressions of the life process and are inseparable from man and environment. Whatever meaning they have to man depends on the understanding of the life process in its entirety.

Now that man, environment, health, and illness have been described, the nursing process will be discussed in more

detail. Gathering data about the individual is the first step in the nursing process (Figure 3). This is a crucial step in the nursing process because it forms a basis for the subsequent steps. During this step the nurse can obtain pertinent information regarding the family and focus in on their individual coping style in regard to the child's chronic illness. The second step, nursing diagnosis, encompasses the man-environment relationship which seeks to identify sequential, cross-sectional patterning in the process of life. This step allows the nurse to identify the specific coping styles utilized that may cause problems when coping with the child's chronic illness. At this stage the nurse would evaluate if the parent was coping effectively or ineffectively with the child's chronic illness.

The third step, identifying short- and long-term goals, would assist the individual to set goals to enhance the meaningfulness of life and thus, maximize the health potential. A mother or father who is not effectively coping with their child's illness will need to establish goals to effectively cope with the illness through active participation with the nurse to identify goals that will promote effective coping and maximize the health potential. The nurse will assist the parent to be more cognizant of the coping style utilized to cope with the stressors of the child's chronic illness and provide the parent with better skills to evaluate and use the coping styles more effectively. The parent may need to set

goals related to achieving better communication patterns or reestablishing social or family relationships to improve the coping style utilized when dealing with the child's chronic illness.

Nursing intervention, the fourth step in Rogers' nursing process (1970) will assist the individual to achieve the goals through repatterning of man and environment to fulfill life's capabilities. These life's capabilities are composed of man's humanness, his creativity, his feelings, and knowledge. By consciously utilizing these capabilities, coping styles can be altered appropriately to cope with the child's chronic illness.

Evaluation, the final step in this nursing process, allows the nurse and the patient to determine if the goals are met. If the mother and father are coping effectively they have met their goal and maximized their health potential. If the parent is not coping effectively with his/her child's chronic illness, then the nursing process must begin again to attempt to assist the parent to learn ways of coping effectively but realizing that he/she cannot experience the same situation again in the same way--that man is in constant change on a unidirectional continuum.

The mother and father, through effective coping with the chronic illness of their child, may learn to utilize this effective coping in their everyday lives to deal with other stressors, such as the stressors associated with raising

children, stressors with employment and stressors of the home in regard to the family and social relationships.

Implications for Nursing

There are several implications for nursing practice in regard to the differences of expressed coping styles of a mother and father when their child has a chronic illness. Rogers (1970) states that nursing is not only a science but also an art and that the practice of nursing encompasses the art of nursing and is the utilization of nursing's body of abstract knowledge to assist the parent to reach his maximized health potential. She views the professional nursing practice as creative and imaginative with descriptive, explanatory and predictive principles. Through this research study, contributions will be made in the field of nursing through the utilization of the principles of professional nursing practice by relating the influences of a child's chronic illness to his/her parent's coping style.

Since the research literature has given little attention to describing or explaining the different coping styles of mothers and fathers of a chronically ill child or predicting the potential outcomes that these styles may have on the child and/or the family, this study has an important contribution to make to the nursing literature. This study will provide descriptive data on predominant coping styles of parents when faced with a chronically ill child. With these data as a base, future nursing research can be conducted in an attempt

to identify effective and ineffective coping styles. If this research is accomplished in the future, nurses can support effective coping styles or assist in altering ineffective coping styles to promote maximization of the parent's health potential which may enhance the family's health potential.

In this chapter the conceptual framework was presented as it relates to the study variables. In Chapter III the review of literature with respect to asthma, childhood chronic illness and coping will be presented.

CHAPTER III

REVIEW OF THE LITERATURE

Introduction

The major focus of the literature review is on research studies relating to parental coping with a child who is chronically ill. There is a significant lack of pertinent literature concerning the topic. It is important to closely examine the information known about fathers' and mothers' coping styles to fully demonstrate the lack of knowledge concerning this topic. In the chapter, general literature related to coping will be presented initially followed by literature about parental coping.

General Coping

Definitions of Coping

Coping has been defined by many theorists in different ways. Mechanic (1962) referred to coping as one of the basic components of adaptation. This component of adaptation was defined as a behavior which assists an individual in dealing with a stressful situation.

Lazarus (1966) interpreted coping through integrating concepts from psychological stress theory wherein coping is utilized to deal with a threat. Lazarus (1966) stated that

the coping process was dependent upon cognitive activity to perceive the threat and, thus, to mobilize the individual in order to reduce a threatening situation.

Lipowski (1970) defined coping broadly as all cognitive and motor activities that a person employs to preserve his/her bodily and psychic integrity, to recover reversibly impaired function and to compensate for any irreversible impairment. Lipowski's coping styles (1970) are divided into cognitive coping styles (i.e., vigilant focusing and minimization) and behavioral coping styles (i.e., tackling, capitulating and avoiding). These styles have been conceptualized and operationalized in Chapters II and IV of this thesis and will be discussed further in a later section of Chapter III related to parental coping.

Moos and Tsu (1977) indicated that coping is a skill that can be taught to a person and used as a response to demands in certain situations. These skills can be used individually, consecutively or in various combinations (Moos & Tsu, 1977). Many of the coping skills identified by Moos and Tsu (1977) such as, denial, seeking relevant information, intellectualization or learning specific illness-related procedures, have been similarly described categorically by other authors (Ilfeld, 1980; Lipowski, 1970; McCollum, 1975; Pearling & Schooler, 1978; White, 1974). Moos and Tsu (1977) differed from Lipowski (1970) by suggesting that all coping skills have cognitive and behavioral components.

In more recent literature Folkman and Lazarus (1980) defined coping as the cognitive and behavioral efforts made to master, tolerate or decrease external and internal demands and conflicts. Folkman and Lazarus (1980) also indicated that these coping efforts serve two functions: (1) the management or alteration of the person-environment relationship, that is the source of stress (problem-focused coping), and (2) the regulation of emotions that are stressful to the person (emotion-focused coping).

In summary, the definition of coping was viewed in terms of defense mechanisms by Mechanic (1962) and some of the earlier theorists or as a response to a perceived threat (Lazarus, 1966). Lipowski (1970) proposed that coping could be utilized to preserve or maintain an individual's integrity as well as to respond to a stressful situation, thus, providing an all-encompassing definition. Moos and Tsu (1977) and Folkman and Lazarus (1980) agree that coping skills have cognitive and behavioral components which are used as responses to demands in certain situations or conflicts.

Background and personal factors, illness-related factors, and social and environmental factors. It has been speculated by Moos and Tsu (1977) and Lipowski (1970) that in order for an individual to cope effectively with a situation (such as, when a parent faces the chronic illness of a child with all its ramifications), a variety of factors influence the coping styles utilized. The three general determinants of coping as

described by Lipowski (1970) and Moos and Tsu (1977) are background and personal factors (i.e., age, education, occupation, income, values, beliefs, emotional state, and cognitive capacity before or at the onset of the illness and throughout its duration), illness-related factors (i.e., type and location of symptoms, degree of reversibility and functional impairment), and social and environmental factors (i.e., home, hospital, clinic, and employment as well as the types or relationships with family and significant others in the surroundings, see Conceptual Framework). There is little recent research literature offering conclusions regarding these factors and their association with coping. Research studies pertaining to these factors affecting coping will be presented in the remainder of this section.

Friedrich (1979) studied demographic and psychosocial variables in an attempt to determine which combination could most accurately predict the current level of coping behavior for parents of handicapped children. The random sample consisted of 98 mothers who were selected from a larger sample of 360 mothers of handicapped children. The Questionnaire on Resources and Stress (QRS) developed by Holroyd in 1974 was used to measure coping ability (Criterion Variable; Friedrich, 1979).

In addition to assessing basic demographic variables, i.e., race, age, sex of the child, residence of the child, education, occupation, etc., a battery of tests was administered to evaluate marital satisfaction, mental health, social

support and religiosity (predictor variables). The Marital Adjustment Inventory (MAI) developed by Lock and Wallace (1959) measured marital satisfaction in the study. The Psychological Well-Being Index (WBI) developed by Bradburn and Caplowitz (1965) was used as an indicator of mental health. Friedrich (1979) indicated that "the MAI and WBI are widely used single-score indices" but did not report the reliability or validity of these indices.

Social support was measured by a shorter version of the social support index developed by Nuckolls, Cassel, and Kaplan (1972) as was the religiosity index developed by Zuk, Miller, Bertram, and Kling in 1961 (Friedrich, 1979). The author validated the shorter versions of the social support and religiosity indices with the original versions of the indices by using a different sample before using it in the study. Although the shorter versions of the indices correlated greater than .91 with the original versions, the author did not report the significance levels of these correlations (Freidrich, 1979). The coefficient alpha for the reliability measurement was .73 for the social support index and .87 for the religiosity index, indicating high reliability.

A step-wise multiple regression analysis showed that marital satisfaction, child's residence and child's sex were significant predictors of coping behavior (Fredrich, 1979). The most significant predictor was the mother's feeling of security in the marital relationships. This factor alone

accounted for 79% of the predictor ability. In addition, a positive relationship was shown between the child's residence and the mother's coping behavior. Mothers also were noted to be under more stress when their handicapped child was female. Friedrich (1979) also indicated that the social support and well-being indices were negatively correlated with the total QRS score ($r = -.24$ social support and $r = -.46$ well-being). The religiosity index did not correlate with the QRS total score. These three variables (social support, well-being, and religiosity) did not show any significance in the data analysis. No other demographic variables indicated predictor ability in regard to coping behavior of mothers of handicapped children. A limitation in the study was the author's failure to consistently report the significance levels of correlations which in turn made it difficult to interpret the results.

Ilfeld (1980) conducted interviews with 2,300 Chicago adults and assessed demographic dimensions to determine their effects on coping styles. Multiple regression analyses were calculated with each coping style as a dependent variable and the demographic dimensions as the independent variables. The results indicated that the influences of the demographic variables upon the coping styles were generally weak. In general, older persons utilized an acceptance coping style when faced with a stressor and were less willing to seek outside help to overcome a stressor ($p < .01$). More women than men utilized outside resources and rationalization to cope with daily stressors ($p < .01$).

Ilfeld also indicated that the higher the income level, the more actively a person coped with his/her job but less actively contributed to daily financial situations, such as budgeting or purchasing items ($p < .01$). It was also noted that employees with higher education utilized active coping styles in daily stressful situations ($p < .01$). In assessing parental coping styles associated with demographic predictors, it was noted that the more education a parent had, the less likely he/she would use avoidance and more likely he/she would use outside help or acceptance ($p < .01$).

Folkman and Lazarus (1980) studied 100 middle-aged men and women with respect to their ability to cope with daily stressors. Age and gender were two demographic variables analyzed. Analysis of variance was utilized to examine the relationship between age and coping. When an age stratification of four intervals of five years each was utilized, no age related effect was found in regard to problem or emotion-focused coping. An age stratification of two, ten-year age intervals also demonstrated no age related effect in problem or emotion-focused coping. These negative results may be due to the highly restricted age range of the sample (i.e., 45-64 years). If the researchers had included older and younger individuals, an age related effect on coping may have been found.

Gender differences and their relationship to coping were assessed by Folkman and Lazarus (1980). Men were found to

use more problem-focused coping than women ($p \leq .05$), but only at work and in situations that were appraised as requiring acceptance or needing more information ($p \leq .05$). The authors indicated that this result may have been due to the administrative positions in which more men are placed and that another study should be conducted with occupationally matched samples of males and females to assess the results more accurately. There were no gender differences in the utilization of emotion-focused coping in the study.

In conclusion, little research has assessed intrapersonal, environmental, or illness-related factors as predictors of coping behaviors. According to Moos and Tsu's model of adaptation to a crisis (1977) these factors have an effect on the coping skills of individuals when faced with a crisis, such as that faced by a parent when he/she has a chronically ill child. More research needs to be conducted to accurately assess the effect of these factors on coping.

Coping Styles

Coping styles refer to an individual's consistent mode of functioning to deal with challenges and stressors through certain techniques or coping strategies (Lipowski, 1970). These coping strategies are an expression of the coping styles and of the endeavors to try new approaches to specific challenges posed by the illness (Lipowski, 1970). Cognitive coping styles are characterized as perceptual, intellectual processes. Minimization as a cognitive coping style that is

characterized by a tendency to ignore, deny or rationalize information about the disease (Lipowski, 1970). Minimization is prominent in the coping literature although usually referred to as denial.

Through observations made in a psychiatric practice by Harding et al. (1979) and Bruhn (1977) it was discovered that fathers often exhibited denial and rejection of their chronically ill child and his/her illness for a longer period of time than did mothers of chronically ill children. The conclusion is highly limited in generalizability because of potential observer bias. Through Crosby's (1977) experience as a pediatric nurse specializing in diabetes, it was noted that parents of a diabetic child go through a stage of "defensive retreat" in which the coping style, denial or minimization, is utilized to deal with the crisis of the diagnosis. F. Voorhorst-Smeenk's (1977) observations of asthmatic children and their parents, indicated that some parents deny the illness and its ramifications by not discussing it, although they panic when the child develops tightness in the chest.

The other cognitive coping style, vigilant focusing, is characterized by intellectually seeking new information about the illness. In the parental coping literature, vigilant focusing has been identified as parental overconcern or over-protectiveness. Vigilant focusing assists the parent to obtain information in order to intellectualize about the illness which promotes security (Abramson et al., 1977;

Crosby, 1977; Lipowski, 1970; McCollum, 1975; Mattson, 1972; Voorhorst-Smeenk, 1977). Vigilant focusing is predominant in mothers of chronically ill children.

Behavioral coping styles emphasize action tendencies of the individual dealing with the illness rather than intellectual processes. Tackling, a behavioral coping style, is reflected through an active attitude toward challenges and tasks posed by the illness (Lipowski, 1970). McKeever (1981) interviewed ten biological fathers of children who had hemophilia, asthma, renal disease, or thalassemia major and noted that most fathers admitted to sharing responsibility for the child's care equally with their spouses. This finding is unusual in that it has frequently been reported that mothers lack support from their spouses in caring for the chronically ill child, thus, implying that the mother is the primary care person and has accepted responsibility for the management of the illness, thereby "tackling" the child's illness (Bruhn, 1977; Harding et al., 1979; Kruger, 1980; McCollum, 1975; Mandelbaum & Wheeler, 1960; Travis, 1976). Realizing McKeever's sample is heterogeneous but small (n=10) and not randomized, this finding cannot be generalized to a larger population of fathers who are faced with a chronically ill child. The observation may reflect an interviewer bias or a societal change in which there is an alteration in the coping styles of fathers who have a chronically ill child.

Capitulation, another behavioral coping style, is characterized by passivity and either withdrawal from or

dependent clinging to others (Lipowski, 1970). Capitulation has frequently been cited as a coping style utilized by families of chronically ill children. An example of capitulation is staying at home instead of going on vacation because of the fear of exacerbating the illness or not being able to find available medical care that may be needed for the chronically ill child (Kruger et al., 1980).

The last behavioral coping style described by Lipowski (1970) is avoidance. The coping style, avoidance, allows active attempts to flee from problems of the illness (Lipowski, 1970). In the parental coping literature it has been noted that fathers in particular have utilized avoidance. Harding et al. (1979) indicated that fathers tended to avoid general involvement with the family, especially with the ill child. Travis (1976) indicated that in many different types of childhood chronic illnesses (i.e., asthma, hemophilia, muscular dystrophy) the father could not endure the problems associated with the illness and tended to separate himself from the child and the ramifications of the illness.

In summary, the previous section presented the different types of coping styles as described by Lipowski (1970) and illustrated by health practitioners through their work with chronically ill children and the parents of chronically ill children. It must be stressed that the observations of these health practitioners were subjective in nature and cannot be generalized. The following section will present recent research studies on adult coping.

Pertinent Research Studies on Adult Coping

In a few research studies adult coping styles have been identified (Folkman & Lazarus, 1980; Ilfeld, 1980; and Pearlin & Schooler, 1978). Pearlin and Schooler (1978) viewed coping as any response to external lifestrains that assist adults to prevent, avoid or control distress. The focus of Pearlin and Schooler (1978) was not on the exceptional person who experiences unusual problems in rare situations but was on structured social encounters arising within the boundaries of the multi-roles that people engage in on a daily basis. In their study (Pearlin & Schooler, 1978) interviews were conducted on 2,300 persons of a representative urban sample between the ages of 18-65. One aspect of the study focused on asking questions that elicited coping responses to potential daily stresses in marriage, parenting, occupation, and finances.

The questions were developed from interview materials obtained by open-ended exploratory interviews that were gradually developed, tested and standardized (Pearlin & Schooler, 1978). The authors did not provide any information about reliability or validity of the questionnaire. Furthermore, the authors reported only some of the items with the appropriate factor loadings from the factor analysis. With the lack of complete results it is difficult to assess the questionnaire.

Pearlin and Schooler (1978) identified 17 coping responses in the study and indicated that the coping responses were only

a portion of the many responses that individuals may utilize to deal with daily life strains. The responses identified are classified by their functional nature. The first set of coping responses alter the situation from which a strainful experience arises (i.e., negotiation in the marriage role, the use of punitive discipline in the parenting role, the "optimistic action" in the occupational role) (Pearlin & Schooler, 1978). The second set of coping responses controls the meaning of the strainful encounter after it occurs but before the stress occurs (i.e., positive comparisons and selective ignoring in all four role areas) (Pearlin & Schooler, 1978). The third set of coping responses assists adults in the management of stress (i.e., emotional discharge vs. controlled reflectiveness, potency vs. helpless resignation, and optimistic faith for the financial future) (Pearlin & Schooler, 1978).

In summary, it was noted that certain coping responses such as selective ignoring or making positive comparisons were identified across all four role areas, whereas other coping responses were identified in only one role area. The most common type of coping response utilized in the study was the response of controlling the meaning of the strainful encounter after it occurs but before the stress occurs.

A conclusion of this study reflects that there may be variability and consistency when coping is viewed across situations (Folkman & Lazarus, 1980). Pearlin and Schooler

(1978) indicated that coping is more effective when one is faced with problems that involve a close interpersonal relationship, such as marriage and parenting and less effective when a person is faced with impersonal problems in a situation such as occupation.

A limitation of Pearlin and Schooler's study (1978) is that data on coping styles utilized in commonly experienced life strains were collected on adults--normal life cycle transitional or unanticipated crises were not tested--so these results may be limited in terms of allowing for generalizations. Interviews were completed on a representative cluster sample of 2,300 persons but the authors failed to indicate whether any training sessions were held for the interviewers which could introduce an interviewer bias effect. Another limitation in this study is the wide age range of the participants. The researchers did not subcategorize responses of different age groups as a function of marital, financial, parental, or occupational factors.

Ilfeld (1980) participated as a research associate in the same study as Pearlin and Schooler (1978). Ilfeld (1980) viewed coping from a broad perspective and defined it as attempts by an individual to resolve life stressors and emotional pain. He also indicated that coping strategies may precede or follow life stressors, thus resolving life stressors and/or mediating distress. In his study, Ilfeld (1980) identified three major coping patterns from the interviews of 2,300

persons. The patterns identified were direct action, rationalization/avoidance and acceptance.

Action and rationalization/avoidance coping strategies were identified in all four role areas studied--marriage, parenting, finances, and occupation. The acceptance coping strategies were identified only in parenting and financial roles. Ilfeld (1980) evaluated the frequency of use for the two most prominent coping patterns: action and rationalization/avoidance. Ilfeld (1980) stated that the majority of individuals sampled did not consistently use the same coping style across several role areas; they employed each of these coping patterns in one or two role areas. Sixty-five percent of the participants used action in one or two role areas; 52% used rationalization/avoidance in one or two role areas; none of the participants used action or rationalization in all four role areas. This finding may indicate that coping styles are related more to the environmental context (i.e., facing the burdens that are posed by a chronically ill child) than to the manifestations of a personality type (Ilfeld, 1980).

Folkman and Lazarus (1980) analyzed the coping styles of middle-aged men and women in relationship to daily stressful events during one year. The random sample consisted of 100 respondents between the ages of 45-64 all of whom were caucasian and 93% Protestant. Monthly interviews as well as self-report questionnaires were obtained on each participant. This self-report questionnaire, The Ways of Coping Checklist,

was developed by Folkman and Lazarus. Cronbach's alpha for the checklist was .80 for the problem-focused scale and .81 for the emotion-focused scale. Content validity was established by a team of experts in psychology.

Of the two major types of coping measured in the study through the Ways of Coping Checklist (i.e., problem and emotion-focused coping) 98% of the 1,332 coping episodes showed that the participants utilized both types of coping. This finding supports coping theorists in that coping styles can be used in various combinations (Lipowski, 1970; Moos & Tsu, 1977). Also, intraindividual analyses were completed which showed that the participants were more variable than consistent in their coping patterns. The coping pattern analysis was not correlated to certain situations as Ilfeld (1980) accomplished which would have supported the idea that coping styles are more related to the environmental context than to a personality type.

In summary, coping has been defined and studied in many different ways but with the same major concepts being utilized. Coping is presented as a skill or response that is composed of behavioral and/or cognitive processes which are drawn upon to manage internal and external stressors.

The research literature presented in the following section pertains specifically to parental coping responses to a child's chronic illness.

Pertinent Research Studies Regarding Parental Coping Responses to a Child's Chronic Illness

A parent of a chronically ill child must face many complex issues when coping with the chronic illness. Besides the diagnosis, which represents a crisis within the family, practical issues must be dealt with on an ongoing basis. Such issues include confronting problems of social isolation, finances, medical procedures, losses and role changes (Harding et al., 1979; Kruger, 1980; Lawson, 1977; McCollum, 1975; McCubbin et al., 1979; and Steinhauer et al., 1974).

Much of the literature on parental coping with the daily stressors of a child's chronic illness has consisted of the opinions of or observations made by health professionals based on their experiences with parents of chronically ill children. The literature has assisted the health professional to more fully understand the chronically ill child's effects on the parents and family unit and has been cited in the previous section of this chapter. Little scientific research which includes control groups and random samples has focused on the mother's or father's coping responses to the child's chronic illness. More research is needed to further identify and examine the responses.

Father's Coping Responses to the Child's Chronic Illness

Cummings (1976) conducted a study on psychological assessments of fathers of mentally retarded, neurotic, chronically ill and healthy children. Each group had 60

fathers that were matched on the basis of many demographic characteristics. The volunteer sample was recruited through clinics, social agencies, and community physicians. Four self-administered tests were completed by each father in the study. Central personality variables were assessed through a sentence completion test, a self-acceptance inventory and a child-rearing attitudes questionnaire. The father's psychological needs were measured by a fourth test, the standardized personality inventory or Edwards Personality Preference Schedule (EPPS).

The results indicated that fathers of chronically ill children revealed significant negative effects from the experience of fathering a health-deficient child but these effects were not as significant as those of fathers of mentally retarded children. The fathers of chronically ill children were noted to have more depressive feelings when compared to fathers of healthy children ($p < .01$). It was also noted that these fathers had a sense of paternal incompetence when compared with fathers of healthy children ($p < .01$). The fathers of chronically ill children also experienced significantly lower levels of gratification in relationships with the chronically ill child ($p < .01$), with other children ($p < .05$), and with neighbors ($p < .05$). The results of the psychological assessments of fathers of neurotic children were not published, and the author did not provide any reason for not publishing these data. Cummings

concluded that one must recognize and deal with fathers' efforts to avoid painful contact with inner feelings of loss and lowered self-esteem associated with the fathering role so that they can more effectively cope with the child's chronic illness.

Few generalizations should be drawn from the results of the study due to the nature of sampling techniques, that is, a convenience, volunteer sample. Because of the possibility of many confounding variables that could have skewed the results of the study, e.g., other factors that may have contributed to depressed feelings or lower level of gratifications in relationships with fathers of chronically ill children, the results are again limited in scope to the sample in the study.

McKeever (1981) studied the effects of chronically ill children on fathers. A structured interview was conducted on ten fathers of chronically ill children with asthma, hemophilia, thalassemia major or renal disease. The interview was conducted by the researcher and elicited information on communication with health professionals, the effects of the child's illness on the father, the father's involvement of care with his chronically ill child, coping mechanisms and the father's main concerns.

The results of the exploratory, descriptive study supported other conclusions in the literature on childhood chronic illness. Fathers indicated that they rarely spoke

with the health care provider about the child's illness. A large majority of the fathers indicated that they would not move out of the geographic area for a better job promotion unless equivalent medical facilities were available for the child in the new location. Fathers also indicated they enjoyed less leisure activity and 90% of them (n=9) went out with their wives without their children less than once a month. The reasons given for this social isolation were lack of time, energy, or fear of leaving the child with a baby-sitter. Fifty percent of the fathers (n=5) thought their marital relationships had been weakened due to the constant worry and tension over the chronic illness, whereas, the other half of the sample thought the experience of having a chronically ill child strengthened their marital relationship.

Another observation from McKeever's study (1981) was that many fathers indicated they were equally involved with the mothers in their child's care and that all of them indicated that they were involved in the care to some extent. This finding does not support the literature in that the mother is typically viewed as the parent who is responsible for the overall care of the child (Burton, 1975; Reddiough et al., 1977; Steele, 1977). McKeever (1981) noted that the fathers in the study used denial to cope with the child's chronic illness. They admitted to not discussing the child's illness with extended family members or friends and did not participate in support groups. The author stated that these activities

allowed the father to maintain his denial. The last finding was that the major concern of fathers was the unpredictable nature of the child's disease.

As indicated earlier, McKeever (1981) did not use a heterogeneous sample but generalizations are limited due to the small sample size ($n=10$) and the volunteer nature of the sample which may bias results. This researcher is in agreement with McKeever (1981) in that the study should be replicated with a larger, more representative sample that would allow for statistical manipulation of variables.

Mother's Coping Responses to the Child's Chronic Illness

Cummings et al. (1966) conducted a study on psychological assessments of mothers of mentally retarded, chronically, physically ill, neurotic and healthy children. The authors were particularly interested in mother's personality development with changes in care-taking functions derived from the perceptions of having a deficient child. The methodology was similar to that of the 1976 study as presented in the previous section of this chapter (Cummings, 1976). Five self-administered tests were completed by each mother in the study. Central personality variables were assessed through the Shoben Parental Attitudes Inventory, child-rearing attitudes questionnaire, a self-acceptance inventory and a sentence completion test. The mother's psychological needs were measured by the Edwards Personality Preference Schedule (EPPS).

The results of the study indicated that mothers of retarded children were under more stress than mothers of chronically, physically ill children. The mothers of the chronically, physically ill children deviated only slightly from those of healthy children. The authors speculated that the significance of these results could have been obscured by the use of several different types of chronic illnesses in the study. Also, the deficiency state of the child as experienced by the mother may not have been as visible because the child was usually not acutely ill (Cummings et al., 1966). It is interesting to note that mothers of chronically ill children had a tendency toward reduced enjoyment of relationships with neighbors which is similar to the avoiding coping style.

The authors (Cummings et al., 1966) concluded that research designs utilizing small, cross-sectional samples are inadequate and that a longitudinal design utilizing larger samples is necessary. Cummings et al. (1966) also concluded that efforts to support parents' self-esteem and instill confidence in their ability to care for their children will assist them to cope more effectively with the ramifications of the chronic illness.

Pertinent Research Studies Regarding Mothers' and
Fathers' Coping Responses to the Child's
Chronic Illness

Dunlap and Hollinsworth (1977) conducted a study on the effect of the handicapped child on the family. Dunlap and

Hollinsworth (1977) utilized families who had a mentally retarded, epileptic or cerebral palsied child as a member. Interviews were conducted on 404 families using a series of standardized questions about the handicapped child and his/her effect on the family. Questions pertaining to the effect on the family unit of a developmentally disabled member included information about parental employment decisions, locations to live, vacations, finances and relationships of parents and siblings. The researchers indicated in their findings that the majority of the families interviewed did not perceive any effect on the family's relationships and activities because of the handicapped person. There was one notable exception. Approximately one-third of the families interviewed stated that recreational activities and vacations had been restricted due to the physical demands of the handicapped person. Only 4% of the parents stated they had adjustment difficulties with raising the child. This researcher agrees with Dunlap and Hollinsworth (1977) that the differences in their results in comparison to other literature may be due to the non-heterogeneous sample in the study (i.e., primarily rural, low socioeconomic status, large percentage of sample were of black racial background).

A major limitation in Dunlap and Hollinsworth's (1977) study involves unexplained inconsistencies in reporting the data, as can be seen in the figures which follow. The findings indicated that the parents' perceptions of the

family's time demands (45%; 100 participants), financial problems (27%; 60 participants), and physical demands of caring for the handicapped child (23%; 50 participants) were more of a burden than social stigma (7%; 15 participants), lack of services (8%; 17 participants) or discipline problems (14%; 30 participants). The authors speculated that the findings regarding physical and monetary demands would be more significant with a lower socioeconomic class due to a general lack of knowledge regarding available resources and/or lack of health insurance, both of which might be more accessible to members of higher socioeconomic classes.

Inconsistencies also persisted in other tables in Dunlap and Hollinsworth's (1977) research article (i.e., total sample results were not reported). The inconsistencies caused difficulty in interpreting the results as well as generalizing the results to a larger population.

McCubbin et al. (1979) studied a volunteer sample of 100 families having a child with cystic fibrosis. The purpose of the study was to assess coping patterns utilized by parents to manage family life and health when a child in the family has a chronic illness. An 80 item checklist entitled CHIP (Coping Health Inventory for Parents) provided self-report information on how parents perceived their responses to the family life management with a cystic fibrosis child (McCubbin et al., 1979).

The results identified three coping patterns: (1) maintaining family integration, cooperation and an optimistic

definition of the situation; (2) maintaining social support, self-esteem and psychological stability, and (3) understanding the medical situation through communication with other parents and consultation with the medical staff. A Cronbach alpha was computed for each of these coping pattern scales with the reliabilities noted as .79, .79, and .71 respectively (McCubbin et al., 1979).

The parents' coping patterns were validated by the Family Environment Scale (FES) developed in 1974 by Moos (McCubbin et al., 1979). This instrument measures family dynamics in the areas of interpersonal relationships of family members, personal growth in the family and organizational structure of the family. The authors indicated that the FES was validated from a representative sample of 285 families with over 1,000 participants with "high internal consistencies ranging from .64 to .79 using the Kuder-Richardson Formula 20 and acceptable test-retest reliabilities ranging from .68 to .86."

The results indicated that the mother's coping patterns of maintaining family integration, cooperation . . . (coping pattern #1) and understanding of the medical situation . . . (coping pattern #3) were correlated with family cohesiveness on the FES with the alphas noted as $p < .01$ and $p < .05$ respectively. The mothers' coping pattern of maintaining social support . . . (coping pattern #2) was associated with family expressiveness on the FES with the alpha $p < .05$. Only two

coping patterns of fathers in the study were validated by the FES. The coping pattern of fathers directed at family integration, cooperation . . . (coping pattern #1) was associated with family organization ($p < .01$) and family cohesiveness ($p < .01$). The same coping pattern was also noted to have an inverse relationship with conflict. The fathers' coping pattern of understanding the medical situation through communication . . . (coping pattern #3) was associated with family organization ($p < .05$) and family control ($p < .05$).

The results indicated that the three coping patterns utilized by mothers of this sample assisted to maintain family cohesiveness and family expressiveness when correlated with the FES. Fathers' coping patterns assisted to reduce conflict and anger within the family as well as helping to support the maintenance dimension of family life on a broader scale. McCubbin et al. (1979) concluded that the study points out "the need for parents to balance this concentrated care with personal investments in themselves, in the family as a whole and in their understanding of the medical situation." The results of the study support the theme that each parent's coping efforts are an important and integral part of maintaining family integration, cooperation and organization which can potentiate maximizing the health potential of the parent and other family members (see Conceptual Framework).

Kruger et al. (1980) conducted an exploratory, descriptive study investigating the behavioral patterns of families

having children with cystic fibrosis. Fourteen families voluntarily agreed to be interviewed. Open-ended interviews were conducted with the parents as well as the siblings. All of the family members were caucasian and of lower to middle socioeconomic status. Financial burdens were a major concern of the families. All of the families perceived the mother as the primary care-taker of the child with cystic fibrosis whereas the fathers were responsible for "paying the bills" (Kruger et al., 1980). Mothers utilized help from neighbors and relatives and the families utilized the cystic fibrosis clinic services as needed.

Parents tended to vigilantly focus on the child's condition for fear that the child would become ill as well as worrying about maintaining the proper altitude and high humidity levels and avoiding extreme heat and cold. The constant threat of the cystic fibrosis child becoming ill was verbalized through expressions of fear of leaving the child at home alone, of worry over slight symptoms and of constant observations of the child (Kruger et al., 1980). The most frequently expressed behavioral change within the family was the need for solitude and social interaction. Family activities were decreased due to the fear of an exacerbation of the illness.

The exploratory study of Kruger et al. (1980) provided many examples that reflect the coping styles parents utilize in certain situations when faced with the problems of a

chronically ill child. The limitation of a volunteer, small sample must be taken into consideration when interpreting these data.

Parental Coping Responses to a Child with Asthma

Literature related to childhood asthma usually alludes to the disturbance in the mother-child relationship by rejection of the child by the mother, engulfment by the mother and the ambivalent holding on yet letting go of the child, representing a maternal conflict between dependence and independence (Abramson et al., 1977; Block et al., 1966; Kapotes, 1977; Miller & Baruch, 1957; Rhyne, 1970; Sandler, 1977; Sperling, 1949; and Travis, 1976). These concepts evolved after French and Alexander (1941) initially presented the mother-child relationship as the etiological factor of childhood asthma. Block et al. (1966) introduced the concept of the "asthmagenic" mother in which particular features of personality or behavior may have exerted an adverse effect on the frequency and severity of asthmatic attacks in the child. There have been few controlled, objective, experimental studies of the mother's responses to the asthmatic child.

Literature on asthma will be presented as it relates to parental coping responses to a child with asthma. Block et al. (1966) studied the evaluations of characteristics of "asthmagenic" mothers made by 14 clinicians who were actively working with asthmatics. Each clinician completed 100 items which

were descriptors of personality which permitted a complex evaluation of an individual (i.e., mother of an asthmatic child).

The results indicated three types of asthmatogenic mothers: (1) deprived; (2) achievement-oriented, and (3) assertive. It was concluded that the deprived mother appeared to lack coping mechanisms for dealing with anxieties and conflicts and viewed interpersonally as distrustful, constrained and isolated. The achievement-oriented mother was viewed as being more able to cope with situations posed by the child's illness. She was viewed as thoughtful and intellectualizing; interpersonally she established positive, warm relationships. The assertive mother was viewed as actively coping with the child's illness. Interpersonally, the clinicians evaluated these mothers as expressive and forthright.

The validity of these asthmatogenic descriptions was tested by relating them to actual mothers of asthmatic ($n=62$) and non-asthmatic children ($n=50$). The deprived mother syndrome was found statistically more often among mothers of asthmatic children than of mothers of non-asthmatic children ($p < .05$), thus offering support for the validity that the asthmatogenic mother is associated with the "deprived type" syndrome. The achievement-oriented and assertive syndromes did not support validity based on the results.

The authors (Block et al., 1966) indicated that when evaluating the significance of this research the number of

clinicians (n=14) and the nature of the participating clinicians (i.e., psychiatrists, clinical psychologists, and pediatricians) had to be considered. There was no indication in the study of the percentages of the types of professionals that did participate in the study. It was indicated that the results may be reflective of contemporary psychiatric opinion about the nature of the asthmatic mother thus increasing the subjectivity of the responses.

Byrne and Murrell (1976) studied self-descriptions of mothers of asthmatic children. It was hypothesized that if mothers of asthmatic children portrayed a sense of anxiety and overprotectiveness to their children, they would also describe themselves through adjectives depicting these two behaviors. This study had 65 mothers of school-age asthmatic children in the experimental group and 100 mothers of school-age children with no history of asthma or a chronic illness in the control group. All mothers occupied a wide range of socioeconomic backgrounds. Mean ages of the children were 9.1 years and 10.3 years respectively. No other demographic data were presented. Each mother rated herself on 70 adjectives which may have described herself. The 70 adjectives were selected by 10 experienced clinical psychologists and psychiatrists from a list of 300 self-descriptive items developed by Gurch and Heilbrum (1965). These clinicians were asked to choose those adjectives that best allowed subjective self-descriptions of ways in which individuals might respond

to a significant stressor as well as maternal qualities (Byrne & Murrell, 1977). The most frequently chosen items were selected to compose the questionnaire used for the study. The results indicated no significant difference between the experimental and control group on adjectives measuring anxiety but mothers of asthmatic children possessed overprotectiveness and obsessional self-descriptive qualities, whereas the mothers of the non-asthmatic children lacked these qualities.

The authors did conclude that cautious interpretations must be made due to other influences that may have affected the results (i.e., efficacy of the questionnaire and response bias). Byrne and Murrell speculated that these aspects of the mother's behavior may reinforce and prolong asthmatic symptoms in the child but pointed out that an interventive study would have to be utilized to test this speculation.

Crummette (1979) studied the effects that childhood asthma had on mothers. The researcher conducted a study of 30 black mothers of low socioeconomic background who had a school-age child with asthma. A single interview with open-ended questions was utilized with each mother. It focused upon maternal concerns in regard to the child's asthma and the mother's perceptions of how the asthma had affected her life.

The results of the study indicated that of the total 3,779 maternal behaviors classified, three-fifths were related to observing, sustaining or limiting the children, one-fifth

were related to interceding with, maintaining or providing the appropriate environment for the child, and one-fifth were concerned with alterations in the mother's lifestyle due to the asthma. These results support the majority of the literature on chronic illness in that mothers are typically viewed as the primary care provider of the ill child and that the mothers have very little time left for their own interests. These results are skewed because the researcher did not control for marital integrity. Half of her sample was composed of single parents who had the responsibility of the total care for the child. The present study controls for this skewness of data by including both biological parents of school-age asthmatics who are living in the same household, and are thus exposed to similar burdens of the chronic illness. Also, the results from Crummette's study (1979) allow limited generalizability due to the non-heterogeneous, small sample and interview method.

Rees (1963) investigated whether faulty parental attitudes caused emotional reactions which precipitated attacks of asthma in children of such parents. Two groups, one consisting of 170 asthmatic children who were successively admitted to an asthma clinic and the other consisting of 160 children who attended an accident unit of the same institution, were matched for sex, age, and socioeconomic status (Rees, 1963). The researcher assessed parental attitudes through interviews with the parents and from significant others who provided

relevant information. Rees (1963) used Kanner's criteria for classification of parental attitudes. Satisfactory parental attitudes tended to promote security in the child and normal mental and physical development (Rees, 1963). Unsatisfactory parental attitudes tended to impede healthy personality development and promoted insecurity, sadness and maladjustment in the child (Rees, 1963).

Rees (1963) noted that 44% of the asthmatic group had satisfactory parental attitudes and 56% of the asthmatic group had unsatisfactory parental attitudes. In contrast, the control group had 82% of the participants assessed with satisfactory parental attitudes and 18% of the participants had unsatisfactory parental attitudes. These differences were statistically significant. Rees (1963) also noted that only 4% of the total group of parents of asthmatics expressed overprotective attitudes; 1.7% expressed perfectionist attitudes, and 4.5% expressed overt rejection attitudes.

The results of the study could have been affected by how acutely ill the child was at the time of the study. Also, this study is another example which interviewer bias may have affected the outcome of the study. It must, however, be taken into consideration that this study was conducted 18 years ago and should be considered an exploratory study on which to base future research.

Reddihough et al. (1977) studied the level of understanding that the parents of asthmatic children had in regard to the disease, and also assessed the effect asthma had on

the child and the family. The random sample consisted of 41 asthmatic children and their families. The parent's interview consisted of answering 43 open- and closed-ended questions about their child's illness.

The results indicated that besides the basic misconceptions about the disease and drug therapy, parents had many anxieties about the child's chronic illness that were rarely discussed with the physician. Fifty percent of the parents thought their child could die during an acute attack and many mothers felt the need to be close to the asthmatic child because of a possible exacerbation. Sixty-eight percent of the mothers perceived themselves as making the decision regarding medication administration during an acute asthmatic attack and 80% perceived themselves as making the decision about school attendance for the chronically ill child. The mothers perceived the fathers never making a sole decision about school attendance or medication administration during an acute asthmatic attack. The children supported their mothers' view of perceiving their fathers as noninvolved in decision-making regarding their care.

Generalizations must be limited in this study. As the authors noted, the small sample was not a true cross section of asthmatic children and the question construction may have been leading.

In summary, studies dealing with childhood asthma reported a variety of parental coping styles. Some studies

portrayed mothers as being unable to deal with the anxieties of the illness. Other studies reported mothers as intellectualizing about the illness or actively expressing themselves in regard to the child's illness. Mothers were also noted to vigilantly focus on the asthmatic child and to "tackle" the illness by being more activated in seeking information from significant others as well as by usually being the sole care-provider of the child. The research studies are limited in regard to the father's coping responses to an asthmatic child. It has, however, been indicated that fathers may tend to utilize minimization or avoiding when attempting to cope with the child's illness. A more recent study indicated that fathers are becoming "tacklers" in regard to their child's illness.

Maternal and paternal responses when faced with a chronically ill child have been described in the previous section. Many of these studies were subjected to biases due primarily to interview methodology, non-reliable questionnaires, non-randomization and small sample size. The present study offers a method for evaluating these coping responses of parents who have a chronically ill child. It is obvious that more research needs to be conducted in order to obtain reliable and valid tools to assess coping responses of parents so that health professionals can more effectively evaluate the responses and offer guidance to the parents as needed.

Developmental Level of the School-age Child and
Its Effect on Parental Coping

There has been essentially no scientific research on the effect of the developmental level of the chronically ill or healthy school-age child on particular parental coping styles. In contrast, the literature related to infancy has focused on developmental issues of handicapped infants (e.g., congenital abnormalities) and the effect of the handicapped infant on parental responses. It is beyond the scope of the present study to present this literature.

Issues presented in the literature have alluded to parental fears that may prevent the chronically ill child from participating in mentally or physically stressful activities, in that it may cause detrimental effects on the chronic illness (Lawson, 1977; Sedlacek, 1978; and Travis, 1976). Because of these fears, parents have been known to display overprotectiveness by focusing on the disability which could, in turn, prevent or retard the child from progressing developmentally to his/her maximum potential (Abramson et al., 1977; Bentley, 1975; and Neill, 1979).

Again, many of the statements on development of the chronically ill child as they relate to parental coping have been observations of psychologists, physicians and nurses as was the case in many of the articles on parental coping. Thus, they have, for the most part, not been based on scientific data. It is obvious that the developmental level

of the child and its effect on parental coping is an area in need of empirical research.

Summary of Literature Review on Parental Coping
With a Child Who Is Chronically Ill

In summary, the literature does indicate to a limited extent that mothers and fathers utilize a variety of coping styles to cope with the stressors in life, including the stressor of a family member with a chronic illness. The literature does not scientifically establish predominant coping styles that mothers and fathers utilize to cope with the chronic illness. There is no evidence in the literature that supports using coping styles concurrently or consecutively as has been proposed by Lipowski (1970) and Moos and Tsu (1977).

The conceptual framework presented in Chapter II indicates that certain factors affect the coping process. The literature weakly supports the notion that certain factors (i.e., background and personal factors, illness-related factors and social and environmental factors) affect the way mothers and fathers cope with the child's illness. The literature lacked evidence in regard to factors that would have an effect on particular styles utilized by mothers and fathers.

The conceptual framework also includes the coping style that parents may utilize when faced with a stressful situation, such as a child's illness. Many observations have been made indicating that mothers tend to be "vigilant focusers"

and "tacklers," whereas fathers tend to be "minimizers" or "avoiders." The literature lacked scientific evidence to support the assumption that these coping styles are exclusively predominant for mothers and fathers. There have also been no studies attempting to discriminate between mothers and fathers on the basis of their coping styles.

There are several implications for research from the literature review for this study on parental coping responses to a child who is chronically ill. The necessity for studying coping responses of parents in relationship to a chronically ill child is evident by the lack of empirical research on the topic. Assessment and identification of the coping responses of parents as well as obtaining data from the parents may have a major influence on the coping response. Thus, assessment of coping styles provides an important link for counseling and guiding parents to be cognizant of and to utilize the coping process more effectively.

In Chapter IV the operational definitions, the instruments and scoring, statistical techniques used in the data analysis, sample population and data collection procedure will be presented.

CHAPTER IV

METHODOLOGY AND PROCEDURE

Overview

When a child has asthma, parents need to cope with daily treatment regimens. These regimens include medications, restriction of certain activities of the child or dustproofing the child's room. The threat of exacerbation of the chronic illness, which may cause frequent trips to the emergency room or even hospitalization of the child, must also be dealt with by parents on a daily basis. A review of the literature shows a limited focus on parental coping responses to a child's chronic illness. Thus, there is a need to examine the coping of the maternal and paternal parent and compare their coping styles in relation to their child's illness.

The study was designed to determine the predominantly expressed coping styles of biological mothers and fathers who have a child that has been diagnosed with asthma after the first year of life and at least one year duration, and to compare the coping styles to evaluate if each parent was coping similarly or differently from each other. Besides providing descriptive data on the predominant coping styles utilized by parents of asthmatic children, the study was also designed to determine the discrimination between mothers

and fathers on the basis of their coping styles in relation to the child's chronic illness.

The purpose of Chapter IV is to present the methodology and procedures utilized in the thesis. Within the chapter the operational definitions, the research questions and hypotheses, the instrument, scoring, statistical techniques used in the data analysis, population characteristics, data collection procedure and human rights protection will be presented in detail.

Operational Definitions

In the study coping styles have been adapted from Lipowski's (1970) classification of cognitive and behavioral categories. The cognitive subcategories consist of vigilant focusing and minimization whereas the behavioral subcategories consist of tackling, capitulating, and avoiding. In this section these concepts will be defined operationally.

Coping Style

Coping style is an individual's consistent mode of functioning to deal with challenges and stressors during the individual's lifetime. Behavioral and cognitive coping styles were measured for each parent. Coping styles are affected by an individual's cognition or behavior in response to a stressor (Lipowski, 1970). Coping styles may be used individually, consecutively, or in various combinations (Moos & Tsu, 1977).

Cognitive Coping Style

Cognitive coping style is a characteristic way of perceiving, thinking, and problem-solving that is used by an individual in response to an illness. This coping style was measured through questions that measured vigilant focusing and minimization which are two types of cognitive styles of coping.

Vigilant Focusing. This cognitive style is a cognitive energetic response to perceived signals of dangers and persistent attempts to reduce uncertainty and ambiguity about all aspects of the illness (Lipowski, 1970). Individuals who tend to use this type of coping are noted to be obsessional, alert, anxiety-prone and intellectualizing. Vigilant focusing can be considered a continuum in which hypervigilance and exaggerated bodily threats are at one end of the continuum and realistic recognition of threats in an illness, tasks, and rational planning are at the other end of the continuum (Lipowski, 1970). The style, vigilant focusing, was measured by items in the Parent Coping Profile: 1,7,16,19,22,27,36, 38,40,41 (see Appendix A).

Minimization. This cognitive coping style is an inclination to ignore, deny or rationalize significant personal information related to one's illness and its consequences. Minimization can be viewed as a continuum with total denial and reasonable doubt at opposite ends of this continuum (Lipowski, 1970). The coping style, minimization, was

measured by items in the Parent Coping Profile: 13,14,28,35, 37,42,43,45,47,48 (see Appendix A).

Behavioral Coping Style

Behavioral coping style is the predominant habitual mode of acting which an individual may use in response to an illness. These action tendencies may be altered by intrinsic factors in the individual's current psychological state or by other situational variables. Tackling, capitulating, and avoiding are examples of behavioral coping styles (Lipowski, 1970).

Tackling. This behavioral coping style is choosing an active attitude toward challenges and tasks posed by an illness or disability. Tackling can be seen on a continuum with one end being the individual having to "fight" illness at any cost. At the other end of the continuum the individual will display rational activity related to the demands of the illness, recovering from an illness or compensating for any residual disability (Lipowski, 1970). The coping style, tackling, was measured by the items in the Parent Coping Profile: 5,8,9,18,20,29,31,39,44,49 (see Appendix A).

Capitulating. This behavioral coping style is characterized by passivity and withdrawal from or dependent clinging to others. Individuals that utilize this coping style demonstrate little initiative or action to fight illness and achieve maximum possible recovery (Lipowski, 1970). The coping style, capitulating, was measured by the items in the

Parent Coping Profile: 2,3,4,11,15,17,21,25,30,33 (see Appendix A).

Avoiding. This behavioral coping style is an active attempt to escape from the demands of the illness. This behavioral coping style is often used by individuals who cannot accept the sick role or have their child accept the sick role as it is a threat to their self-image (Lipowski, 1970). The coping style, avoiding, was measured by the items in the Parent Coping Profile: 6,10,12,23,24,26,32,34,46,50 (see Appendix A).

Chronic Illness

All impairments or deviations from normal which have one or more of the following characteristics comprises a chronic illness: it must be permanent, leave a residual disability, be caused by nonreversible pathological alterations, requires special training of the patient for rehabilitation and may be expected to require a long period of medical supervision, observation, or care (Commission on the Prevention of Chronic Illness, 1957).

Asthma is a disease characterized by an increased responsiveness of the trachea and bronchi to various stimuli and manifested by a widespread narrowing of the airways that changes in severity either spontaneously or as a result of treatment (American Thoracic Society, Committee on Prognostic Standards, 1962). Since the management of asthma usually requires regular medical supervision and observing the child

for any complications or exacerbations, asthma met the criteria for a chronic illness used in the research study.

Research Questions

1. What is the predominant expressed coping style of the mother and the predominant expressed coping style of the father when their child has a chronic illness?
2. Which individual coping style contributes most to the total coping style of the mothers and to the total coping style of the fathers when they have a chronically ill child?

The primary aim of these two research questions in this descriptive study is to describe these phenomena so as to provide a foundation for later research on parental coping with a chronically ill child. Because of the descriptive nature of these questions, hypotheses were not developed.

3. Is it possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping styles through the five variables, vigilant focusing, minimization, capitulating, tackling, and avoiding simultaneously?

The following hypotheses were developed for the third question. The predictor variables are the coping styles and the criterion variable is the sex of the parent.

Hypotheses

1. Given minimization, tackling, capitulating and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, vigilant focusing.
2. Given vigilant focusing, tackling, capitulating, and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, minimization.
3. Given capitulating, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, tackling.
4. Given tackling, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, capitulating.
5. Given tackling, capitulating, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, avoiding.

Extraneous Variables

There were two major extraneous variables that were measured in the study. The variables included the developmental level of the child and the length of time since the child was diagnosed as having asthma. The variables were analyzed through correlation matrices and used descriptively in the study.

Developmental Level of the Child

The developmental stages that a child must go through during infancy and the childhood years may have a profound effect on the coping style that a parent may utilize when coping with the child's chronic illness. Due to the variability of developmental levels, this study was restricted to the school-age child. In most of the literature it is noted that the parent, usually the mother, is overprotective of the asthmatic child (Abramson et al., 1977; Hirt, 1965; Kapotes, 1977; Mattson, 1972; Rees, 1963; Steele, 1977; Steinhauer et al., 1974; and Williams & McNicol, 1975). This overprotectiveness may be associated with the developmental stage of a sense of industry versus feelings of inferiority. Since the developmental level of the child may have an effect on the coping style of the parent, information in regard to the developmental tasks was obtained from each parent. The parent was asked to complete a section in the sociodemographic questionnaire to measure the child's developmental level.

The Child Health Questionnaire (Appendix B) was utilized to measure the child's developmental level. The mean scores for each coping style of the mothers, fathers, and the total sample (i.e., combination of mothers' and fathers' scores) were correlated using the Pearson Product Moment Correlation with the mean scores of the Child Health Questionnaire for the mothers, fathers, and the total sample. These correlations were used to assess the effect of the developmental level on the parents' coping styles. In addition, reliability was established for the Child Health Questionnaire using coefficient alpha.

Number of Years Since the Child
Had Been Diagnosed with Asthma

Since the school-age child (5-10 years of age) was utilized in the study, there could have been a wide variability of number of years since the child had been diagnosed with asthma. To provide control for this extraneous variable the child who had been diagnosed as having asthma after one year of age was included in the study. The completion of the first year of life was selected as an inclusion criteria because the child becomes less dependent upon the significant other and autonomy begins to develop in all developmental areas. If the child becomes chronically ill during the first year of life, it may alter the parental bonding which may alter the coping style utilized by the parent when coping with the child's chronic illness. Another criterion was that

the child had to have been diagnosed with asthma for at least one year prior to the study to control for initial denial of the parents to the chronic illness. Questions pertaining to this information were posed in the sociodemographic questionnaire (see Appendix C, questions 22,23).

Instruments

Parent Coping Profile (PCP)

A standard instrument to measure specific coping styles of parents who have a chronically ill child had not been developed prior to this study. A few instruments have recently been developed that described general coping patterns of adults or parents toward illness but none of them measured specific coping styles in relationship to a child's chronic illness. The researcher developed the PCP (Appendix A) which was based on literature review and in consultation with faculty members. Some statements were used from Dwyer's questionnaire (1979) on coping (refer to Appendix D). All statements in the PCP were derived from the five coping styles described by Lipowski (1970).

Each of the five coping styles of the PCP were operationalized through the development of ten statements that conceptually represented each style. The PCP consisted of 50 statements written in a clear and understandable manner that measured five coping styles being utilized by a parent of a child with a chronic illness. The responses of each coping

style statement were measured on a five point Likert scale: Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree. Crano and Brewer (1973) indicated that Likert's scale construction technique typifies a process that is not only more efficient in terms of resource expenditure but also more effective in developing scales of high reliability. In summary, a Likert scale was used in the PCP which was developed by the researcher based on literature review.

Child Health Questionnaire (CHQ)

The CHQ is an instrument developed by Butler (1979) as a means to measure psychological health in school-age children (Appendix B). Psychological health is defined as a positive, creative, growth-oriented condition which can be observed in the behavior of the child in five categories. These categories include (1) physical: a child who has good physical health and accepts his/her own body; (2) cognitive: a child who is original, creative, and possesses a wide range of interests; (3) social: a child who is comfortable with others and who demonstrates some leadership and responsibility; (4) emotional: a child who makes appropriate use of a variety of affective responses; and (5) play: a child whose play activities reflect freedom, spontaneity and flexibility (Butler, 1979). (See Appendix E for the items that measure the five categories of psychological health in the CHQ.)

The CHQ consisted of a 20-item rating scale that listed 20 descriptive items that pertained to a child who was psychologically healthy. Three choices for answers were utilized: "certainly applies," "applies somewhat," and "doesn't apply." This instrument was developed for the rater to draw upon his/her direct and indirect knowledge of the child and to make value judgments about the child. It was not developed to be used as an observational tool (Butler, 1979). The CHQ was initially used by teachers to rate the psychological health of children in their classroom. Butler (1979) had parents rate their children and found that there was greater parental bias and less differentiation of scores when compared with ratings of teachers.

The development of the questionnaire was based on a theoretical model of health as a creative, growth-oriented process (Butler, 1979). After meetings with parents, teachers, and practicing child health clinicians who assured the items in the scale reflected true health patterns of children, a pilot study was conducted on 50 children in two first grade classes in a middle-class Midwestern elementary school. Interrater reliabilities involved the judgment of the current first grade teacher and the past kindergarten teacher. The coefficient was 0.76 for 50 urban middle-class children and 0.79 for 20 rural lower class children. Odd-even internal consistency coefficients for four kindergarten and first grade teachers ranged from 0.82-0.89. Butler (1979) indicated

that these coefficients may be reflecting consistency in the teachers' shared value systems and shared opinions of the child. In summary, the CHQ was used in the study to measure the developmental level as it relates to the school-age child. The rating was done by each parent of all the children in the study. The data will be used descriptively to assess the parent's perception of the child's developmental level.

Sociodemographic Questionnaire

Besides including the CHQ the sociodemographic questionnaire obtained basic information on the parent as it related to his/her background and personal factors (Appendix C, questions 1,3,4,5,6,7,8,9); his/her illness-related factors (Appendix C, questions 10,11,12,13,14,15,16,17); his/her social and environmental factors (Appendix C, questions 18,19,20,21, 29). Certain descriptive information on the asthmatic child was obtained such as number of days missed from school and number of visits to his/her physician (Appendix C, questions 22,23,24,25,26,27,28,30).

Scoring and Analysis

Parent Coping Profile (PCP)

The following section presents the procedure for scoring and analysis of the PCP. Using the Likert scale for statements 1-50, a range from 1-5 points were assigned to each of the responses depending on the endorsement or non-endorsement of the coping style being measured. The point assignment was done by the researcher before keypunching the data.

The total number of items in each coping style scale was summed and divided by the number of items in the scale to standardize the data in the same metric. All scores were rounded to the nearest whole number. The mean and standard deviation were calculated for each coping style.

Predominant Expressed Coping Style. A Z score was computed for each parent on each coping style scale. A Z score is obtained by subtracting from a person's raw score the mean score of the total group and then dividing the results by the standard deviation of the group (Borg & Gall, 1979). The highest Z score was designated the parent's predominant coping style.

Discriminant Function Analysis. In the following section the procedure for discriminant function analysis will be presented. Group means and standard deviations were calculated for each coping scale. Then an F-ratio statistic was utilized to test the variance between groups on each coping style. If the F-ratio is statistically significant ($p < .05$) then the means are likely to have been taken from different populations (Borg & Gall, 1979). The F-ratios and significance levels for each coping style were evaluated for the most significant coping style of all the coping styles. The highest significance level indicated the most significant coping style. This style was considered the coping style that contributed most to the total coping style of mothers and fathers who had a chronically ill child. After the F-ratio and the

significance levels were calculated for each coping style a stepwise selection method for entry into the discriminant function analysis was completed. By this method predictor variables were selected for entry on the basis of their discriminating power, that is the significance level of the F-ratio (Nie et al., 1975). As variables are selected for inclusion in the stepwise method, some variables may lose their discriminating power and should be eliminated. A variable may reenter at a later step if it meets the selection criterion at that time (Nie et al., 1975).

After the stepwise method was completed on each coping style the canonical correlation was completed. According to Borg and Gall (1979) canonical correlation tests the strength of the relationship between several predictor variables (in this study the coping styles) and the criterion variable (in this study the sex of the parent). The higher the canonical correlation the better the fit of the discriminant function to the data.

After the canonical correlation was completed beta weights were developed for each coping style. The beta weight is derived from tabulating each parent's raw score on a graph and drawing a line that best fits the data with the least minimum error. After these beta weights were calculated, the group mean discriminant score for the fathers and the group mean discriminant score for the mothers were obtained by utilizing the beta weights and group Z scores that were

calculated from the individual Z scores computed in the earlier analysis. The discriminant function formula can be found in Appendix F.

After the group mean discriminant scores were calculated, an individual discriminant score was computed for each parent. The score was compared with the group mean discriminant scores for mothers and fathers. After comparisons were made the sex of the parent was revealed to note if the prediction was correct, that is, each mother's score matched the group mean discriminant score for mothers and each father's score matched the group mean discriminant score for fathers.

Extraneous Variables

Developmental Level of the Child. The CHQ was developed by Butler (1979) and utilized to measure the developmental level of the child in this study through parental rating. Scores were assigned to the answers as follows: each "certainly applies" answer = 2 points; each "applies somewhat" answer = 1 point; each "doesn't apply" answer = 0 points (Butler, 1979). A cutoff score of 1 standard deviation or at least 34 points was arbitrarily established to indicate a psychologically healthy child (Butler, 1979). A correlation matrix was developed to correlate the total scores of the CHQ obtained through mothers and fathers with the parental coping styles by using the Pearson Product Moment Correlation Coefficient. The value of the Pearson Product Moment Coefficient may vary from -1.00 to +1.00, the sign being an indicator of

the direction of the relationship (Crano & Brewer, 1973). The interpretation of this coefficient computed between the variables in this study was:

1. A correlation from .20 to .35 indicates a slight relationship between the variables even though this relationship may be statistically significant. Correlations at this level are not valuable in prediction.
2. A correlation ranging from .35 to .65 indicates a moderate relationship. Crude group predictions can be made with correlations of .50.
3. A correlation ranging from .65 to .85 indicates a marked or somewhat high relationship with group predictions possible.
4. A correlation over .85 indicates high or close relationships. Individual or group predictions can be made at this level (Borg & Gall, 1979).

The size of the correlation coefficient is representative of the degree of the relationship between the variables. A low correlation indicates a low relationship even if it is significant at the .01 level. The confidence level was set at .05 in this study in order for correlations to be considered statistically significant, thus, indicating relationships between the variables.

Number of Years Since the Child Had Been Diagnosed with Asthma. The number of years that the child has been diagnosed

with asthma may have affected the coping styles used by parents. A correlation matrix utilizing the Pearson Product Moment Correlation Coefficient was designed to correlate length of time the child was diagnosed with asthma and the coping styles utilized by the parent.

In summary the scoring methods and statistical techniques used in the data analysis were presented in this section of Chapter IV.

Reliability

The reliability of a measuring instrument is a major criterion for evaluating its quality and adequacy (Polit & Hungler, 1978). A scale's reliability tests the degree of interrelationship among items (Crano & Brewer, 1973). Internal consistency most effectively describes the condition in which there is high reliability (Crano & Brewer, 1973). Coefficient alpha, the average interitem correlation of all items that constitutes a scale (Crano & Brewer, 1973) was the reliability test for internal consistency that was completed for each coping style. The normal range of values for coefficient alpha is between 0.0 and +1.00. If the coefficient alpha is .80 or higher the scale has satisfied the criterion of internal consistency (Crano & Brewer, 1973). The reliabilities for each of the coping scales in the PCP were calculated and are presented in Chapter V.

In summary, coefficient alpha is an index of homogeneity or internal consistency which estimates the extent to which

different subparts of an instrument are equivalent in terms of measuring the critical attribute (Polit & Hungler, 1978).

Validity

In addition to reliability, the quality of an instrument is evaluated by examining its validity. The degree to which a measure actually measures the characteristic it claims to measure is called validity (Borg & Gall, 1979). Many kinds of validity can be established in an instrument. In this study content validity was the major concern of the researcher. Content validity is the degree to which the sample of scale items represents the content that the scale is designed to measure (Borg & Gall, 1979). The researcher is required to review applicable literature before developing items for the scales utilized in the study. Items are developed by the researcher based on literature and with the assistance of experts in the content area to evaluate that the items are representative of the appropriate scale. Assumptions of an acceptable degree of content validity are based almost entirely upon the subjective judgment of the researcher (Crano & Brewer, 1973). For the study content validity was estimated by the judgments of the researcher and faculty members in nursing based upon literature review because no other parent coping instrument was available.

Population

For purposes of this study the family is defined as the traditional nuclear family consisting of two legally married adults with a child that has been diagnosed with asthma after the first year of life. As the first year of life nears completion the child becomes less dependent upon the significant others and autonomy begins to develop in all developmental areas. If the child becomes chronically ill during the first year of life, it may alter the parental bonding which may affect the parent's perception of the child, the perception of the illness and have a significant effect on the coping styles that the parents utilize to cope with the chronic illness.

The age of the child must range between five and ten years and have been diagnosed with asthma for at least one year to control for the initial stage of denial that parents may utilize to cope with the chronic illness. Both mother and father must be living in the same household. Families with other children in the household that have a terminal illness will be excluded from the study because of any confounding influence the terminal illness may have on the parents' coping with a chronic illness. There will be no exclusion on the population for racial, cultural or socioeconomic restraints. The study will not include a single or widowed parent and separated or divorced couple. Other

exclusions from this study will be individuals with mental confusion or illiteracy.

A convenience sample of 30 parental dyads who met the pre-established criteria for this study were obtained over a six month period. This sampling entails the most readily available subjects for the study. This sampling may entail the risk of bias which may affect analyzing and interpreting the data by the researcher.

Procedure

Pre-test

The initial data collection phase included a pre-test of three marital dyads who had a school-age asthmatic child. The purpose of the pre-test was to obtain information for improving the research project as needed, such as determining any problems that the parents may be experiencing in understanding the questionnaires or particular questions in the instrument that may cause confusion for the participants (Polit & Hungler, 1978). The pre-test provided an opportunity to check gross inadequacies or unforeseen problems that may occur in the full-scale study (Polit & Hungler, 1978). The couples did not have any problems in understanding the directions of the questionnaires, the wording of questions or the consent form. When the pre-test was completed, the questionnaires were finalized and the study was commenced.

Contacting Participants in the Study

The researcher contacted three physicians in the Lansing, Michigan area who were known to have asthmatic children in their practices. The purpose of the study was explained to these physicians who agreed to participate in the study. A representative from the Tuberculosis Association was contacted to determine if the representative from the association could identify asthmatic children for the study. An agreement was made with this representative to identify patients for the researcher. A representative from the American Lung Association was contacted to determine if parents from the local asthmatic support group in Lansing, Michigan, could be asked to participate in the study. A nursing associate from the support group facilitated the researcher to obtain participants for the study. An administrator from Mott Children's Center in Flint, Michigan was contacted and was willing to participate agreeing that patients could be identified through the nurses in the primary care clinic at the center. Two patients were contacted through peers of the researcher in Illinois.

The purpose of the study was explained to the physician, nurses, and representatives of the Tuberculosis and American Lung Associations so that they fully understood the importance that the study was contributing to the management of asthmatic children and their parents. The parents of a school-age child with asthma were contacted in the clinic or through the

asthmatic support group meetings and were given the initial contact consent form by the nurse or physician (Appendix G). The initial contact consent form briefly explained the study and provided a space for the parents' signatures which indicated that the parents were willing to be contacted by the researcher to discuss the study in more detail. The forms were given to the researcher by the nurses or representatives of the aforementioned organizations. Then the researcher proceeded to contact the parents, explained the study in more detail and made arrangements to mail the questionnaires. Parents were also contacted by phone by the representatives of the TB association to obtain verbal permission for the researcher to call the parents in regard to participation in the study.

Mailed Questionnaire Methodology

During the data collection phase the researcher obtained the initial contact consent form that was signed by the parents when the child was seen in the participating clinic or the researcher obtained a list of potential participants from the physician, nurse or association representatives who had been contacted by phone and were willing to discuss the study with the researcher. The researcher contacted the potential participants directly by phone to discuss the research study in more detail in the following manner:

- a. Introduction of self by name, title, and association with the physician or organization participating in the study.
- b. An acknowledgment of their interest in obtaining more information about the study by signing the initial contact consent form in the clinic or giving verbal consent over the phone to the physician, nurse, or association representative associated with the study.
- c. An explanation of the study in more detail was given to the parent which included established criteria for inclusion in the study. This explanation indicated what the requirements were for participation in the study.
- d. An indication of the amount of time and effort that was needed by the parent to participate in the study was given.
- e. Assurance of anonymity and confidentiality was provided to the parents.
- f. The parents were assured that they may refuse to participate in the study and that refusal would in no way affect the care of their child by their physician.
- g. Requested participation in the study by the researcher was made.

- h. Time was allowed for each parent to discuss their participation because the study required that both parents had to be willing to participate and had to have a full understanding of what they had to do.
- i. If participation was granted to the researcher, the parents were given instructions for completing the questionnaires and encouraged to call the researcher if any problems were encountered when filling out the questionnaires. A telephone number was provided on the consent form for the purpose of contacting the researcher if problems were encountered while answering the questionnaires. The participants received a cover letter (Appendix H), the consent form explaining the intent of the study (Appendix I), and the Sociodemographic questionnaire (Appendix C) and the Parent Coping Profile (Appendix A). A self-addressed stamped envelope was enclosed for return of the consent form and the questionnaires.
- j. The researcher called the parents within five days to determine if they encountered any difficulty completing the questionnaires. The researcher offered emotional support to each parent in regard to problems encountered with asthma.
- k. If the parents of a child refused to participate in the study, the researcher thanked the parents for their time and recorded the names and reason for refusal.

- l. The data was stored in the researcher's home in a file cabinet.
- m. At completion of the data collection phase the data was coded and keypunched in preparation for data analysis.

Human Rights Protection

The specific procedures that were followed to protect the rights of the participants is presented in this section. The participants were not contacted directly by the researcher for the initial contact. Through physicians, nurses or significant others the participants signed a consent form or gave verbal consent via phone so that the researcher had permission to contact the potential participant to explain the study in more detail. This methodology allowed the potential participant the right to refuse to participate in the study without having contact with the researcher directly so that any form of coercion was controlled.

If the parents decided to participate in the study an explanation of the research was provided in writing and verbally by phone contact which included the purpose of the study, how the data would be utilized in the study, the amount of time required to complete the questionnaires and the risks to the subject. The participants were given information in writing about confidentiality, freedom to withdraw from the study and that if they decided to withdraw, it would not affect the child's health care with the present health care

provider. The researcher's name, address, and phone number were provided so if the participant had any questions or concerns that were encountered during or after completion of the questionnaires, the participant could contact the researcher.

The researcher provided for anonymity by precoding the questionnaires with the code numbers for each participant and the site number. The subject's name was never discussed or displayed with the data. The data was recorded from the questionnaires in aggregate form instead of in individual form to further protect the rights of the human subject. The questionnaires were kept in a file cabinet in the researcher's home.

In summary, Chapter IV included the variables that were researched in this study. The sample and procedure were presented as were the scoring and statistical techniques for data analysis. The human rights protection was outlined in this chapter. In Chapter V the data is presented as well as the analysis as it relates to the research questions and hypotheses.

CHAPTER V

DATA PRESENTATION AND ANALYSIS

Overview

The data presented in this chapter describe the study population and the predominant parental coping styles of parents who have a school-age child with asthma. Additionally, data are presented on the discriminatory function analysis of parental coping styles related to an asthmatic child. Finally data are presented to describe the relationship between the extraneous variables in the study (developmental level of the child and the number of years the child has been diagnosed with asthma) and the parental coping styles. A volunteer, convenience sample of 30 marital dyads who were the biological parents of a school-age asthmatic child comprised the study population.

In Chapter V a description of the findings of the study population and data presentation for the following questions are included:

Research Question 1

What is the predominant expressed coping style of the mother and the predominant expressed coping style of the father when their child has a chronic illness?

Research Question 2

Which individual coping style contributes most to the total coping style of the mothers and to the total coping style of the fathers when they have a chronically ill child?

Research Question 3

Is it possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping styles through the five variables, vigilant focusing, minimization, capitulating, tackling and avoiding simultaneously?

Hypotheses

The following hypotheses were developed for the third research question:

1. Given minimization, tackling, capitulating, and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, vigilant focusing.
2. Given vigilant focusing, tackling, capitulating, and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, minimization.

3. Given capitulating, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, tackling.
4. Given tackling, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, capitulating.
5. Given tackling, capitulating, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, avoiding.

Descriptive Findings of the Study Sample

The study sample consisted of 30 legally married dyads which were the biological parents of a school-age child who had asthma. The sample population was obtained from pediatricians, specialists in pulmonary medicine, allergists and associates of the Tuberculosis and Lung Associations of Michigan.

Background and Personal Factors

Age. The study sample consisted of 30 marital dyads who were the biological parents of a school-age child with

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asthma. The age of the study sample ranged from 24 to 47 years. The mean age for the mothers was 32.1 years and the mean age for the fathers was 34.2 years. The age distribution and percent of mothers and fathers can be seen in Tables 1 and 2.

Table 1.--Age of Mothers (n=30).

Age	Number of Participants	Percentage
24-30	13	43
31-37	14	47
38-42	<u>3</u>	<u>10</u>
TOTAL	30	100.0

Table 2.--Age of Fathers (n=30).

Age	Number of Participants	Percentage
26-32	11	37
33-39	16	53
40-47	<u>3</u>	<u>10</u>
TOTAL	30	100.0

Ethnic background. Ethnic background was elicited for each participant in the study. The distribution and percent of mothers and fathers for ethnic background can be seen in Tables 3 and 4. The majority of the mothers (n=28; 94%) and the majority of the fathers (n=25; 85) were caucasian.

Table 3.--Ethnic Background of Mothers (n=30).

Ethnic Background	Number of Participants	Percentage
Caucasian	28	94
Black	1	3
Latino	<u>1</u>	<u>3</u>
TOTAL	30	100.0

Table 4.--Ethnic Background of Fathers (n=30).

Ethnic Background	Number of Participants	Percentage
Caucasian	25	85
Black	1	3
American Indian	1	3
Phillipino	1	3
English	1	3
Latino	<u>1</u>	<u>3</u>
TOTAL	30	100.0

Education. The mean level of education for the mothers was less than four years of college and the mean level of education for the fathers was completion of four years of college. The frequency distribution and percent of mothers and fathers for the levels of education can be seen in Tables 5 and 6.

Four mothers and three fathers had not completed high school. Thirty-three percent of the sample had some college education (n=11 mothers and 9 fathers). One mother graduated from college and another mother had post-graduate college

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Table 5.--Educational Levels of Mothers (n=30).

Level of Education	Number of Participants	Percentage
None or Some Grammar School	0	0
Junior High School	0	0
Some High School (10 or 11 grades)	4	13
Graduated from High School	13	44
Some College (<4 yrs. Completed)	11	37
Graduated From College	1	3
Post-Graduate College	<u>1</u>	<u>3</u>
TOTAL	30	100.0

Table 6.--Educational Levels of Fathers (n=30).

Level of Education	Number of Participants	Percentage
None or Some Grammar School	0	0
Junior High School	2	7
Some High School (10 or 11 grades)	1	3
Graduated from High School	6	20
Some College (<4 yrs. Completed)	9	30
Graduated From College	5	17
Post-Graduate College	<u>7</u>	<u>23</u>
TOTAL	30	100.0

education in comparison to 5 fathers who graduated from college and 7 fathers who had post-graduate college education.

Total family income. The mean total family income was calculated between \$20,000-\$24,999 based on the fathers' responses. The frequency distribution of the level of income can be seen in Table 7.

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Table 7.--Total Family Income of Study Sample (n=29).

Level of Income	Number of Couples	Percentage
Below \$5,000	1	3
\$5,000 - \$10,999	2	7
\$11,000- \$16,999	3	10
\$17,000- \$24,999	6	20
Over \$25,000	17	57
Missing Cases	<u>1</u>	<u>3</u>
TOTAL	30	100.0

None of the fathers reported a total family income between \$5,000-\$8,999 or \$11,000-\$12,999. Only one father indicated that the total family income was below \$5,000. The majority of the fathers (n=17; 57%) indicated that their incomes were \$25,000 or over. One father did not respond to this question on the Sociodemographic Questionnaire.

Occupation. The occupation of the head of the household was elicited and classified in categories according to Hollingshead (1967). These classifications can be seen in Table 8. Twenty-nine fathers perceived themselves as the head of the household. Twenty-nine of the 30 mothers perceived the fathers as the head of the household. Only one mother perceived the head of the household as "co-shared" but her spouse perceived himself as the head of the household. The distribution and percent of the fathers' occupations based on the fathers' responses can be seen in Table 8.

Table 8.--Occupation of the Head of the Household (n=29).

Occupational Categories	Number of Participants	Percentage
1. Higher Executive	4	14
2. Business Managers, Lesser Professionals	3	10
3. Administrative Personnel, Small Independent Businesses	5	17
4. Clerical and Sales Workers	2	7
5. Skilled Manual Employees	8	28
6. Machine Operators and Semi- skilled Employees	3	10
7. Unskilled Employees	0	0
Unemployed or Disabled	<u>4</u>	<u>14</u>
TOTAL	29	100.0

Four fathers were not employed at the time of the study but still perceived themselves as head of the household. Two fathers were laid off from work, 1 father was disabled, and 1 father was a student.

Illness-Related Factors

History of chronic illness. Four mothers (13%) and three fathers (10%) indicated they had a chronic illness at the time of the study. The remainder of the mothers (n=26; 87%) and fathers (n=27; 90%) did not perceive themselves as having a chronic illness.

History of asthma as a child. Seven mothers (23%) and seven fathers (23%) indicated that they had asthma or allergies as a child. Two of the seven mothers with a childhood history of asthma or allergies and two of the seven fathers with a

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childhood history of asthma or allergies were sick often as children because of the chronic illness. All participants with a childhood history of asthma or allergies (n=14) reported that they were able to participate in childhood activities without any difficulties.

Family history of asthma. Twenty-one mothers (70%) and nine fathers (30%) indicated that they had a family history of asthma. One father (3%) did not answer the question pertaining to family history of asthma. The remainder of the mothers (n=9; 30%) and fathers (n=20; 67%) did not have a family history of asthma.

Social and Environmental Factors

Occupants of the household. One couple had only the asthmatic child living in the household. Twenty-eight mothers and 29 fathers indicated that other children lived in the household besides the mother, father, and the asthmatic child. One mother indicated that other relatives besides the children resided in the home. Her spouse did not indicate this response on his questionnaire.

Number of children living in the home. The number of children living in the home per each couple in the study ranged from one to five. The mean number of children per family was three children. The frequency distribution of number of children per dyad and percent can be seen in Table 9.

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Table 9.--Number of Children in the Home of the Study Sample (n=30).

Number of Children	Number of Dyads	Percentage
1	1	3.3
2	17	56.7
3	6	20.0
4	5	16.7
5	<u>1</u>	<u>3.3</u>
TOTAL	30	100.0

Unfamiliar surroundings of a clinic or hospital. Ten mothers (33%) and 12 fathers (40%) indicated that unfamiliar surroundings of a clinic or hospital upset them. Twenty mothers (67%) and 18 fathers (60%) indicated that they did not get upset with unfamiliar surroundings of a clinic or hospital.

Social support. Twenty-five mothers (83%) and 23 fathers (77%) indicated that they had support from family, friends, and clergy when faced with the problems of the child's chronic illness. Two fathers (6%) did not answer this question. Five mothers (17%) and five fathers (17%) indicated they had no support from family, friends, or clergy when faced with the child's chronic illness.

Primary care-taker of child. Twenty-nine mothers (97%) and five fathers (17%) indicated that they were the primary care-taker of the child. One mother (3%) indicated that this role was shared with the father. Twenty-five fathers (83%) indicated that they were not the primary care-taker of the child.

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Descriptive Findings of the Asthmatic
Child in the Study

The age range of the asthmatic children in this study (n=30) was from 5-10 years with the mean age 7.9 years. These children were diagnosed with asthma between the ages of 1-8 years with the mean age at the time of diagnosis being 3.3 years. Twenty children (66.7%) took medication or received special treatments at least once a day. Four children (13.3%) took medication or received special treatment once a week. Only one child (3.3%) took medication or received special treatment bimonthly. Two children (6.7%) received medication or special treatment on a monthly basis. Three children (10%) took medication only as needed.

The number of days missed from school in the past year by the asthmatic children in this study ranged from 0-32 days. The mean number of days missed from school was computed as 13.1. The asthmatic children saw their doctor during the past year between 1-48 visits. The mean number of visits to the doctor in the past year was computed as 14.4. Hospitalizations of the asthmatic children in the past year due to asthma ranged from 0-23 hospitalizations. Fifty percent (n=15) of the children had no hospitalizations during the past year. One child (3%) had 23 hospitalizations in the past year. The mean number of hospitalizations was computed as 3.5. Asthmatic attacks in the past year ranged from 0-36 with the mean number of asthmatic attacks computed as 9.8.

At the time the parents answered the questionnaires 18 children (60%) were ill and 12 (40%) were not ill.

Summary

The descriptive findings of the study population were presented in the preceding section. The specific descriptors of the population were presented in the following manner:

- a. Background and personal factors: age, ethnic background, education, family income, and occupation;
- b. Illness related factors: history of a chronic illness, history of asthma as a child, family history of asthma;
- c. Social and environmental factors: occupants in the household, number of children living at home, unfamiliar medical surroundings felt to be upsetting, social support, primary care-taker of the child.

The asthmatic children in this study were described by the following characteristics: age of the child at the time of the study, age of the child when diagnosed with asthma, frequency of medication ingestion to control asthma, number of days missed from school, number of physician visits, number of hospitalizations, and number of asthmatic attacks.

Data for the research questions and hypotheses for the study are presented in the following section.

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Data Presentation for Research Questions and Hypotheses

In this section each research question will be presented with its associated data as well as an explanation of the statistical technique utilized to obtain the analysis.

Research Question 1

What is the predominant expressed coping style of the mother and the predominant expressed coping style of the father when their child has a chronic illness?

Predominant Coping Styles of Parents

Statistical technique for obtaining predominant coping style. In order to obtain the predominant coping style used by each parent in the study raw scores were totaled for each of the coping styles for each parent from the subscales of the Parent Coping Profile (Appendix J). A Z score is obtained by subtracting from a person's raw score the mean score of the total group and then dividing the results by the standard deviation of the group (Borg & Gall, 1979). The highest Z score for each participant was used to determine the predominant coping style.

Results of predominant coping styles of parents. The predominant coping styles utilized by each parent in the dyad are presented in Table 10. In eight dyads (27%) both members utilized the same predominant style: 5 dyads (18%) were minimizing; 1 dyad (3%) was tackling; 1 dyad (3%) was capitulating, and 1 dyad (3%) was avoiding. Of the 22 dyads (73%)

Table 10.--Predominant Expressed Coping Styles of Mothers and Fathers Matched by Dyad.

	Mothers					
	Cognitive Styles			Behavioral Styles		
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding	
Cognitive Styles						
		1	1	2	2	
Minimization	1	5		3	1	
Fathers						
	2	1	1	1	2	
Tackling						
Behavioral Capitulating Styles			2	1	2	
Avoiding	1				1	

Table 10.--Predominant Expressed Coping Styles of Mothers and Fathers Matched by Dyad.

	Mothers			
	Cognitive Styles		Behavioral Styles	
	Vigilant Focusing	Minimization	Tackling	Avoiding
Cognitive Styles				
Vigilant Focusing		1	1	2
Minimization	1	5	3	1
Fathers				
Tackling	2	1	1	2
Behavioral Styles				
Capitulating			2	2
Avoiding	1			1

remaining the father and mother of each dyad were using different predominant coping styles.

More fathers (n=10; 33%) were using minimization as their predominant coping styles in comparison to mothers (n=7; 23%). Six fathers (20%) were using vigilant focusing as their predominant coping style in comparison to 4 mothers (13%). Seven fathers (23%) were using tackling as their predominant coping style in comparison to 4 mothers (13%). Five fathers (17%) were predominantly capitulating in comparison to 7 mothers (23%). Two fathers (7%) were using avoiding as their predominant coping style in comparison to mothers (n=8; 27%).

In summary, all coping styles were utilized as the predominant coping style by at least one mother and father in the study. Of the five styles utilized by mothers, avoiding was utilized most frequently (n=8; 27%); capitulating and minimization had the second highest frequency (n=7; 23%). Of the five styles utilized by fathers, minimization was utilized most frequently (n=10; 33%). Tackling (n=7; 23%) and vigilant focusing (n=6; 20%) were the next most commonly used predominant coping styles. Eleven mothers (37%) utilized a predominant cognitive coping style (vigilant focusing or minimization) in comparison to 16 fathers (53%). Nineteen mothers (63%) utilized a predominant behavioral coping style (tackling, capitulating, or avoiding) in comparison to 14 fathers (47%).

Discriminant Function Based on
Coping Styles Between Mothers
and Fathers

Statistical technique used in the discriminant function analysis. To determine the discriminating function between mothers and fathers on the basis of coping styles in the study the following statistical techniques were utilized. Group means and group standard deviations were obtained for mothers and fathers on each coping style (Table L1). The F-ratio statistic was calculated for each coping style which measured variations between the group of mothers and fathers for each coping style and was contrasted with variations within the group of mothers and fathers for each coping style. If the F-ratio for a particular coping style was statistically significant it was concluded that the coping style was discriminating between the two groups. The F-ratio and its significance level of each coping style were utilized to determine the order of entry of the coping styles in the stepwise selection method for the discriminant function analysis. The order of entry was determined by each coping style's discriminatory power, the F-ratio with the most significant level of confidence (Nie et al., 1975). As a coping style was entered into the stepwise method of the discriminant function analysis, F-ratios and significance levels were recalculated for the remaining coping styles to account for the remaining unexplained variance. The recalculation determined which coping style entered in the next step of the analysis based

Table 11.--Variable Entry in Stepwise Method of the Discriminant Function Analysis.

Steps	Variables	F-Ratio	df	Significance Level
1	Vigilant Focusing	12.38	58	.0008
2	Avoiding	8.72	57	.0005
3	Tackling	6.39	56	.0008
4	Minimization	5.19	55	.0013
5	Capitulating	0.13	54	not significant

on the significance of the remaining F-ratios. This procedure was continued until all discriminating variables were entered. Table 11 provides information in regard to the variable entry in the stepwise method of the discriminant function analysis. In the subsequent hypotheses that are presented the level of confidence was set at .05 in order to accept or reject the null hypothesis.

Research Question 2

Which individual coping style contributes most to the total coping style of the mothers and to the total coping style of the fathers when they have a chronically ill child?

The stepwise procedure commenced by selecting the single best-discriminating variable based on the F-ratio and significance level. Vigilant-focusing had the highest F-ratio (12.38) with the significance level of .0008. Vigilant-focusing was considered the coping style that contributed most to the overall coping style of mothers and fathers when faced with a chronically ill child.

Research Question 3

Is it possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping styles through the five variables, vigilant focusing, minimization, capitulating, tackling, and avoiding simultaneously?

Hypothesis 1

Given minimization, tackling, capitulating and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, vigilant focusing.

In the first step of the stepwise method of the discriminant function analysis, vigilant focusing had the highest F-ratio (12.38) with a significance level of .0008. The null hypothesis was rejected. It is possible to discriminate between mothers and fathers of chronically ill children based on the coping style, vigilant focusing.

Hypothesis 2

Given vigilant focusing, tackling, capitulating, and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, minimization.

In the fourth step of the stepwise method of the discriminant function analysis, minimization had the highest F-ratio (5.19) with a significance level of .0013. The null

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hypothesis was rejected. It is possible to discriminate between mothers and fathers of chronically ill children based on the coping style, minimization.

Hypothesis 3

Given capitulating, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, tackling.

In step three of the stepwise method of the discriminant function analysis, tackling had the highest F-ratio (6.39) with a significance level of .0008. The null hypothesis was rejected. It is possible to discriminate between mothers and fathers of chronically ill children based on the coping style, tackling.

Hypothesis 4

Given tackling, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, capitulating.

Throughout the stepwise method of the discriminant function analysis, capitulation had a final F-ratio of .1378 which was insufficient for further computation of a significance level and so the null hypothesis was accepted. It is not possible to discriminate between mothers and fathers of

chronically ill children based on the coping style, capitulation.

Hypothesis 5

Given tackling, capitulating, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, avoiding.

In step two of the stepwise method of the discriminant function analysis, avoiding had the highest F-ratio (8.72) with a significance level of .0005. The null hypothesis was rejected. It is possible to discriminate between mothers and fathers of chronically ill children on the basis of the coping style, avoiding.

After the stepwise method was completed, the canonical correlation was computed. A canonical correlation describes the strength of the relationship between several predictor variables and the criterion variable (Borg & Gall, 1979). The canonical correlation is interpreted as other correlation coefficients (see Chapter IV). The statistical significance level of the canonical correlation was interpreted through the Chi Square test developed by Bartlett (1941). The canonical correlation was calculated as .52 and was significant at the .002 level by the Chi Square test. The preceding results indicated a significant relationship between the discriminant predictor variables, vigilant focusing, minimization, tackling, and avoiding and the criterion variable, sex of the parent.

After the canonical correlation was established beta weights of each coping style that established a significance level of .05 were computed based on each parent's raw score. The beta weight was the slope of the line that is calculated with the least minimum error from the data on each coping style. The beta weights for the discriminating coping styles were: vigilant focusing $-.60$; tackling $-.31$; minimization $-.37$, and avoiding $-.73$.

After the beta weights were established the group mean discriminant scores were calculated for mothers and fathers utilizing the discriminant function analysis formula (Appendix F). The fathers' mean discriminant score was computed as $.60$ and the mothers' mean discriminant score was calculated as $-.60$. Then an individual discriminant score was calculated for each parent, compared to the group mean discriminant score and then the sex of the parent was revealed and noted if the prediction was correct. Eighty percent of the mothers ($n=24$) and 80% of the fathers ($n=24$) were predicted correctly using the discriminant variables, vigilant focusing, minimization, tackling, and avoiding. In all of the 30 dyads the sex of at least one spouse was predicted correctly.

In conclusion, the coping styles vigilant focusing, minimization, tackling, and avoiding, when utilized simultaneously, established discrimination between mothers and fathers. Capitulation did not establish a significance level that facilitated further discrimination between mothers and

fathers, and was deleted as a predictor variable in the discriminant analysis.

In this section, predominant coping styles were identified and presented for each parent in the study. The coping style that contributed most to the overall coping style of mothers and fathers was identified. Hypotheses 1, 2, 3, and 5 were rejected indicating an ability to discriminate between mothers and fathers based on vigilant focusing, minimization, tackling, and avoiding when used simultaneously. Hypothesis 4 was accepted indicating an inability to discriminate between mothers and fathers based on the coping style, capitulation.

Reliability of the Parent Coping Profile

The reliability of the Parent Coping Profile was measured through the computation of the coefficient alpha. The scales of the five coping styles were individually computed for coefficient alpha. Certain items from each scale were deleted because they were not consistent with other items in the particular scale. The reliability coefficient for vigilant focusing was .66. This alpha coefficient represented a moderate internal consistency among the items of vigilant focusing. Three statements were deleted to obtain the reliability coefficient (Appendix J, statements 16, 19, and 38).

The reliability coefficient for minimization was .77. This alpha coefficient represented a moderate to high internal

consistency among the items of minimization. Two statements were deleted to obtain the reliability coefficient (Appendix J, statements 43 and 45).

The reliability coefficient for tackling was .68. This alpha coefficient represented a moderate internal consistency among the items of tackling. Four statements were deleted to obtain the reliability coefficient (Appendix J, statements 8, 20, 31, and 44).

The reliability coefficient for capitulating was .74. This coefficient alpha represented a moderate internal consistency among the items of capitulating. Five statements were deleted to obtain the reliability coefficient (Appendix J, statements 2, 3, 4, 17, and 30).

The reliability coefficient for avoiding was .75 which represented a moderate internal consistency among the items of avoiding. Four statements were deleted to obtain the reliability coefficient (Appendix J, statements 10, 12, 46, and 50).

In summary, all the scales measured a moderate to high degree of interrelatedness among items in each scale.

Extraneous Variables

Two major extraneous variables were studied in relationship to the coping styles parents were utilizing when dealing with a chronically ill child. These variables included the developmental level of the child and the number of years since the child had been diagnosed with asthma.

Developmental Level of the Child

The Child Health Questionnaire (Butler, 1979) was utilized to assess the asthmatic child's developmental level as perceived by each parent. To determine the relationship between the developmental level of the child and the parents' coping styles, Pearson Product Moment correlations were computed between the scores of the Child Health Questionnaire for mothers, and the coping styles of the mothers, the scores of the Child Health Questionnaire for fathers and the coping styles for the fathers, and the scores of the Child Health Questionnaire of the total sample (mothers and fathers) and the coping styles of the total sample. In evaluating the relationship of the child's developmental level with the parent's coping styles it was noted that no relationships existed between the developmental level of the child and the coping styles of mothers, fathers, and the total group (Table 12).

Reliability analysis of the Child Health Questionnaire was computed for the study sample. The coefficient alpha for the Child Health Questionnaire was .87 which indicated a high interrelatedness of items.

Number of Years Since the Child Had Been Diagnosed with Asthma

To determine the number of years since the asthmatic child had been diagnosed with asthma the difference between the present age of the child (Appendix C, question 22) and

Table 12.--Pearson Product Moment Correlations Between Developmental Level of the Child and Parental Coping Styles.

Mothers' Coping Styles					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Developmental Level	.15	.20	.18	.01	-.29

Fathers' Coping Styles					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Developmental Level	.07	.05	.05	.17	.11

Mothers' and Fathers' Coping Styles (Combined)					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Developmental Level	.07	.14	.09	.04	-.17

* = significant at the .05 level.

the age of the asthmatic child at the time of the diagnosis (Appendix C, question 23) was taken from the Sociodemographic Questionnaire. The difference was equal to the number of years since the asthmatic child was diagnosed with asthma. The number of years since diagnosed with the illness was correlated with the coping style of mothers, fathers, and the total sample using Pearson Product Moment correlations (Table 13).

It was noted that there was a slight positive relationship between fathers utilizing the coping style, tackling as the child increased the length of time since diagnosed with the disease ($r=36$; significance level = .05). There were no significant relationships between the mothers' coping styles and the length of time since the child was diagnosed with asthma. When the combined sample was assessed, a slight negative relationship was noted between the coping style, minimization and the number of years the child was diagnosed with asthma ($r=-.25$; significance level = .05).

Other Research Findings

Pearson Product Moment correlations were computed for background and personal factors, illness-related factors and social and environmental factors as they related to the parental coping styles (Tables M1, N1, O1). The following relationships were noted between the fathers' background and personal factors and the coping styles. The Pearson Product Moment correlation between fathers' age and the coping style,

Table 13.--Pearson Product Moment Correlations Between Number of Years Since Child Had Been Diagnosed with Asthma and Parental Coping Styles.

Mothers' Coping Styles					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Years Diagnosed With Asthma	-.10	-.22	-.29	.10	-.07

Fathers' Coping Styles					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Years Diagnosed With Asthma	-.01	-.26	.36*	-.25	-.02

Mothers' and Fathers' Coping Styles (Combined)					
	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Years Diagnosed With Asthma	-.01	-.25*	.11	-.02	-.01

* = significant at the .05 level.

vigilant focusing was $-.46$ and was significant at the $.01$ level. Thus, there was a moderate negative statistically significant relationship between the fathers' age and the utilization of vigilant focusing to cope with the child's chronic illness. The Pearson Product Moment correlation between fathers' age and the coping style, minimization was $.43$ and was significant at the $.01$ level. Thus, there was a moderate positive statistically significant relationship between fathers' age and the utilization of minimization to cope with the child's chronic illness.

The Pearson Product Moment correlation between head of the household's occupation and the fathers' utilization of the coping style, minimization was $-.44$ and was significant at the $.05$ level. Thus, there was a negative moderate statistically significant relationship between the head of the household's occupation and the use of the coping style, minimization by fathers of chronically ill children.

The following relationships were noted between the mothers' background and personal factors and the coping styles. The Pearson Product Moment correlation between the mothers' age and the coping style, avoiding was $-.34$. This value was significant at the $.05$ level and thus, there was a moderate negative relationship between mothers' age and the use of the coping style, avoiding by mothers when faced with a chronically ill child.

The Pearson Product Moment correlation between total family income and the coping style, capitulation used by mothers of chronically ill children was $-.56$ and was significant at the $.001$ level. There was a moderate negative statistically significant relationship between the total family income and the utilization of capitulation by mothers of chronically ill children. The Pearson Product Moment correlation between total family income and the coping style, avoiding used by mothers of chronically ill children was $-.55$. This value was significant at the $.001$ level and thus indicated a moderate negative relationship between the total family income and the use of the coping style, avoiding by mothers who have a chronically ill child.

There was a slight positive relationship between the head of the household's occupation and the coping style, vigilant focusing utilized by mothers of chronically ill children. The Pearson Product Moment correlation between these two variables was $.36$ and was significant at the $.05$ level. Another slight positive relationship was noted between head of the household's occupation and the coping style, tackling utilized by mothers of chronically ill children. The Pearson Product Moment correlation between the head of the household's occupation and the mothers' coping style, tackling was $.35$ and was significant at the $.05$ level.

The following relationships were noted between the fathers' illness-related factors and the coping styles.

History of asthma as a child was the only variable that correlated with the coping styles at the .05 level. The Pearson Product Moment correlation between the fathers' histories of asthma as children and the use of the coping style, vigilant focusing was $-.39$ and was significant at the .05 level. Thus, there was a moderate negative relationship between the fathers' childhood histories of asthma and the use of vigilant focusing when faced with their child's chronic illness. There was also a moderate negative relationship between the fathers' childhood histories of asthma and the use of the coping style, avoiding by the fathers. The Pearson Product Moment correlation between these two variables was $-.50$ and was significant at the .01 level. The Pearson Product Moment correlation between the fathers' histories of asthma as children and the coping style, minimization was $.37$ and was significant at the .05 level. These two variables were also noted to have a moderate positive statistically significant relationship.

The Pearson Product Moment correlation between the fathers' histories of asthma as children and the use of the coping style, capitulation by the fathers was $-.33$ and was significant at the .05 level. Only a slight negative relationship was noted between these two variables. There were no significant correlations between the mothers' illness-related factors and the coping styles utilized by the mothers in this study.

There were no significant relationships between the fathers' social and environmental factors and the fathers'

coping styles in this study. There was only one statistically significant relationship between mothers' social and environmental factors and the mothers' coping styles in this study. The Pearson Product Moment correlation between the mothers' perceptions of clinic or hospital settings as upsetting and the coping style, avoiding was $-.36$ and was significant at the $.05$ level. This result indicated a moderate negative relationship between these two variables.

It is beyond the scope of this study to interpret these correlational relationships. These results were reported as a basis for potential future research.

Summary

In Chapter V data were presented that described the predominantly expressed coping styles of mothers and fathers when faced with a child who had a chronic illness, asthma. In addition, it was noted that the coping style, vigilant focusing, minimization, tackling, and avoiding were discriminating variables of mothers and fathers of chronically ill children. The extraneous variables were correlated with the coping styles of the mothers, fathers, and the total sample utilizing the Pearson Product Moment correlation. Reliability analyses were reported on the Parent Coping Profile and the Child Health Questionnaire. In addition, the characteristics of the study sample were described.

In Chapter VI the research study and the data presented in Chapter V will be interpreted and summarized. Conclusions

will be discussed as well as the implications for nursing and recommendations for future research.

CHAPTER VI

SUMMARY, INTERPRETATION, AND IMPLICATIONS
OF FINDINGS

Overview

In Chapter VI a summary and interpretation of the research findings is presented. In addition, conclusions are made and recommendations for future research, nursing practice and nursing education are presented.

Summary and Interpretation of Findings

Descriptive Findings of the
Study Sample

The literature does not describe the parental population that experiences the morbidity related to their asthmatic children even though asthma has been reported as the most common chronic illness of children in the United States (Lewiston & Bergman, 1977). Asthma affects at least one million families and leads to a total loss of eight million school days per year (Lewiston & Bergman, 1977). Due to the lack of information about parents who are faced with a chronically ill child, the study sample was initially analyzed in terms of the factors that may affect coping as cited by Lipowski (1970) and Moos and Tsu (1977) (see Conceptual

Framework). The volunteer sample consisted of 30 married couples who were the biological parents of a school-age child (5-10 years old) with asthma. A summary of descriptive information of the parents in the study will be presented in this section.

Background and personal factors. The mean age of mothers in the study was 32 years while that of fathers was 34 years. The majority of the sample (mothers, $n=28$, 94%; fathers, $n=25$, 85%) was caucasian. Forty-four percent of the mothers ($n=13$) and 20% of the fathers ($n=6$) graduated from high school. Thirty-seven percent of the mothers ($n=11$) and 30% of the fathers ($n=9$) had some college education. Six percent of the mothers ($n=2$) and 40% of the fathers ($n=12$) graduated from college or had post-graduate college education. The advanced education of the fathers in this study may have had an effect on the predominant coping styles utilized--primarily tackling and vigilant focusing. The majority of the sample (17 couples, 57%) had a total family income of over \$25,000. Twenty-five fathers (86%) were employed during the study; no inquiry was made in regard to the mothers' occupation. The lack of data regarding occupation of mothers gives rise to a limitation in interpreting the results because mothers working outside the home may have utilized a different coping style in comparison to mothers who were not working outside of the home.

Illness-related factors. Only 4 mothers (13%) and 3 fathers (10%) had a chronic illness at the time of the study.

Participants that had asthma as a child (n=14; 23%) were not restricted in childhood activities. A greater percentage of mothers (n=21; 70%) than fathers (n=9; 30%) had a family history of asthma.

Social and environmental factors. The mean number of children living in the home was three. One couple had only the asthmatic child living in the home. The majority of the parents (25 mothers, 83%: and 23 fathers, 77%) indicated that they had social support from family, friends and clergy regarding the problems associated with the child's illness. Twenty-nine mothers (97%) and five fathers (17%) indicated they were the primary care-taker of the asthmatic child. This disparity in perception of the primary care-taker may have had an effect on the coping style utilized by the parent.

According to Moos and Tsu (1977) these factors influence the coping styles utilized by parents when faced with the problems that occur when their child is chronically ill (see Conceptual Framework). When correlational analyses were done on these factors in association with each coping style scale, very few correlations were found at a statistically significant level (see Other Research Findings, Chapter V). In future studies where the major endeavor is to describe the relationships between the background and personal factors, illness-related factors and social and environmental factors and coping styles, it may be desirable to focus more on the development of reliable and valid scales to measure these factors.

Results of Coping Posed by Research Questions and Hypotheses

A Parent Coping Profile was developed based on Lipowski's (1970) five coping styles. This profile was utilized in the study to provide a quantitative description of these coping styles. All scales had a moderate to high reliability (Appendix J).

Research Question 1

What is the predominant expressed coping style of the mother and the predominant expressed coping style of the father when their child has a chronic illness?

The predominant expressed coping style of each parent was determined by computing a Z score for each of the coping styles for each parent. The highest Z score for each participant was used to determine the predominant style (see Table K1). All coping styles were utilized as the predominant coping style by at least one mother and father in the study (Table 10).

Of the results found in this study, those of the mothers' are the most contradictory to the literature. In the literature, vigilant focusing and tackling have been expressed as the coping patterns that mothers utilized when faced with a chronically ill child (Abramson et al., 1977; Crosby, 1977; McCollum, 1975; Mandelbaum & Wheeler, 1960; Mattson, 1972; Travis, 1976). A limitation of the literature is that the authors made conclusions which were based upon their own personal interactions with parents of chronically ill children

instead of basing conclusions on objective empirical data. These personal interactions may have been for short intervals which would provide an inadequate and narrow view of how parents are coping from day to day with a variety of situations posed by the illness. Many other factors may be influencing the particular coping styles utilized by parents (e.g., was the child ill at the time of the study; previous exposure to a chronic illness).

The results of this study showed that mothers utilized avoiding (n=8; 27%), capitulating (n=7; 23%) and minimization (n=7; 23%) more frequently as a predominant style. Very few mothers used vigilant focusing (n=4; 13%) and tackling (n=4; 13%) as a predominant coping style. These figures indicate that 50% of the mothers were using a behavioral (avoiding) or cognitive (minimization) style connotating a denial of the illness. Typically, these styles are more commonly used in the early phases of diagnosis of a chronic illness. Five children had asthma for only two years which may account for some of the use of minimization or avoiding by mothers. Lipowski (1970) did emphasize that capitulation can be the most adaptive form of behavior during an acute state of a serious illness. Noting that 60% of the children were ill at the time of the study, these data may account for the high use of capitulation.

The fathers in the study most frequently used minimization (n=10; 33%). This finding supports some of the literature

regarding fathers, in which they tend to ignore or deny the child's illness (Bruhn, 1977; Harding et al., 1979). Minimization may be confounded due to less opportunity to interact with the problems posed by the child's illness because of occupational responsibilities typically associated with the father role or lack of caregiving while the father is at home (Burton, 1975; Travis, 1976). A limitation of the study is that the researcher did not obtain the occupations of the mothers, thus, limiting a similar interpretation of the mothers' uses of minimization.

Contrary to earlier literature, but supportive of more recent literature, fathers were utilizing tackling ($n=7$; 23%) and vigilant focusing ($n=6$; 20%) as the predominant coping style more frequently than mothers. According to Folkman and Lazarus (1980) educational level and seeking outside help have a direct relationship when dealing with parenting responsibilities (significant at the .01 level). Since fathers had higher educational levels than mothers it could be speculated that education may have influenced fathers to cope with a cognitive or behavioral coping style that would assist with planning or performing tasks that are needed when faced with problems of the child's illness.

Research Question 2

Which individual coping style contributes most to the total coping style of the mothers and to the total coping style of the fathers when they have a chronically ill child?

A discriminant function analysis indicated that vigilant focusing, with an F-ratio of 12.38 and a significance level of .0008, contributed the most variance to the total discriminatory coping style of parents in the study (see Table 11). It is important to note that the discriminant function analysis is limited in scope in that it does not indicate how vigilant focusing is distinct from mothers and fathers (i.e., that fathers' scores on vigilant focusing were higher than mothers' scores or vice versa). Since any of a large number of variables could potentially influence which coping style best discriminated between mothers and fathers, it is difficult to determine why vigilant focusing was selected over one of the other styles. However, it may be speculated that vigilant focusing was determined as the best discriminating variable in this sample because of the higher educational level of the sample. A higher level of education may have allowed the parents to intellectualize about the child's chronic illness. Further research studies need to investigate other levels of education as well as other factors that may be the basis for the contribution of the variance of vigilant focusing to the total coping style of parents.

Research Question 3

Is it possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping styles through the five variables, vigilant focusing, minimization, capitulating, tackling, and avoiding simultaneously?

No literature to date has studied the discrimination between parents on the basis of their coping styles. Discriminant function analysis was utilized in this study to distinguish between mothers and fathers on the basis of their coping styles. Discriminating variables are characteristics measured in a study on which the researcher expects the groups to differ. In this study the discriminating variables were the coping styles and the groups were mothers and fathers. The following hypotheses pertain to discriminating between mothers and fathers based on their coping styles.

Hypotheses

1. Given minimization, tackling, capitulating and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, vigilant focusing.
2. Given vigilant focusing, tackling, capitulating, and avoiding, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, minimization.
3. Given capitulating, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, tackling.

4. Given tackling, avoiding, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, capitulating.
5. Given tackling, capitulating, vigilant focusing, and minimization, it is not possible to discriminate between mothers and fathers when they have a chronically ill child on the basis of their coping style, avoiding.

Through the discriminant function analysis it was noted that vigilant focusing, minimization, tackling, and avoiding, when utilized simultaneously by parents, allowed the researcher to predict with 80% accuracy the sex of the parent. Capitulation did not increase the discriminatory power when added to the other variables so it was excluded from the discriminant function calculation. It is important to note that capitulation may discriminate with other samples and should not be excluded from future research when attempting to discriminate between mothers and fathers based on coping styles.

The discriminant function analysis in this study has suggested that there is a distinct difference in the way mothers and fathers cope with their chronically ill children based on the four coping styles mentioned previously. The analysis is limited in scope as noted above in that it does not inform the researcher in which way the coping styles vary between the two groups.

Extraneous Variables

Developmental level of the child. Pearson Product Moment correlations between the developmental level of the child and the coping styles for mothers, fathers, and total sample were computed. The developmental level of the child was determined from parental responses to the Child Health Questionnaire (Butler, 1979). There were no significant correlations between mothers', fathers', or total groups' coping styles and their assessment of their child's developmental level. This lack of a significant relationship indicates that in this population the child's developmental level had no effect on parental coping with a child having a chronic illness. The lack of a significant relationship could be due to a small, volunteer sample that would not demonstrate differences between parental coping styles and the developmental level of the child. Further research should utilize larger samples (including a broader socioeconomic distribution) to assess relationships as well as correlating parental coping responses to other chronic illnesses.

The lack of a significant relationship between the variables may have also been related to parental bias when assessing the child's developmental level. Implications for future research could include having an observer who knows the child (e.g., teacher) rate the child's developmental level and then repeat the correlations to note the effect on the parental coping styles. This methodology would be supported

by Butler (1979) who developed the Child Health Questionnaire because he noted that the parent tended to rate the child higher on the scales than did the child's teacher.

Number of years since the child had been diagnosed with asthma. Pearson Product Moment correlations between the number of years the child had been diagnosed with asthma and parental coping styles were computed. There were no significant relationship between the variables for mothers indicating that the length of time the child had the disease did not affect how the mother would cope with the disease. It could be argued that the sample size was too small to determine the differences between the variables.

There was only one significant relationship between the number of years the child had been diagnosed with asthma and the fathers' coping styles utilized. The significant relationship was found between paternal tackling and the number of years since the child had been diagnosed with asthma ($r = .36$, significant at the .05 level). From this result it could be argued that fathers in this study were more actively involved with their children's health care. With more exposure to the disease process the more activated the fathers had become in helping to decrease problems associated with the illness. Again, it could be argued that a broader and larger sample may have shown significant relationships with the other variables as well, or not significant relationships at all.

When analyzing possible relationships between parental coping styles of the total group and years diagnosed with

asthma one significant relationship was noted. A weak inverse relationship was noted between parental use of the coping style minimization and years diagnosed with asthma ($r = -.25$, significant at the .05 level). This result is supported in the literature in that the less time the child has been diagnosed with the disease, the more parents minimize the illness.

In conclusion, when evaluating these extraneous variables in regard to future research not only is there a need to assess broader and larger populations which are randomized but also parental coping responses to different types of chronic illnesses should be assessed in association with the extraneous variables. It could be speculated that different illnesses may affect parental coping styles differently when correlated with the developmental level of the child and years diagnosed with the disease.

Limitations of the Study

Limitations in the study were identified by the investigator. They consisted of the study sample, the Parent Coping Profile and the analyses utilized. A synopsis of these limitations will be presented in this section.

Sample

The following limitations were identified in the study regarding characteristics of the sample. Since the sample was a volunteer, convenience sample, participants coping

responses may have differed from a broader, randomized community sample.

A high percentage of the fathers in the study had some college education. This finding may have had a major effect on the predominant coping styles utilized by fathers (primarily vigilant focusing and tackling). With advanced education the fathers may have intellectualized about the child's illness and may have been more assertive in the management of the child's illness.

The third characteristic of the study sample which may have affected the findings relates to income. The majority of the total family incomes (17 couples) was greater than \$25,000. This result may indicate that these families were able to afford better health care for their child. They may also have had insurance benefits that would have assisted them in seeking better health care thus, perhaps affecting their coping styles. Parents that do not have access to these benefits may cope differently with their child's illness because of the economic stressors posed by the illness upon the family unit.

Questionnaire

A major limitation with the Parent Coping Profile is that reliability and validity were not established prior to the commencement of the study. The researcher developed the Parent Coping Profile for the study with the assistance from nursing faculty to aid in the establishment of content

validity. Since all possible meanings of each variable were not utilized in the corresponding scale further efforts to establish validity need to be made.

A strength of the questionnaire was the moderate to high reliability coefficients established for each coping scale. With further refinement of the Parent Coping Profile the reliability of each scale may be increased, thereby increasing the inter-item consistency for each coping concept.

The five-point Likert scale was utilized in the Parent Coping Profile to provide a more effective means to develop scales of high reliability (Crano & Brewer, 1973). Two limitations were noted in the study using the five-point Likert scale (strongly agree, mildly agree, undecided, mildly disagree, strongly disagree). First, a seven-point scale should have been utilized with the addition of "moderately agree" and "moderately disagree" categories to provide a more accurate description of the participant's response. In addition, because the "undecided" category does not qualify if the person was opinionated on a particular statement in the questionnaire, it should be deleted. An additional category ("neither agree or disagree") should have been included to allow the researcher to note that the person did have an opinion on the statement but did not agree or disagree with it.

Analysis

The utilization of the highest Z score to determine the predominant coping style for each participant in the study limited interpretations because some participants' scores for several coping styles were very similar in range to that of their predominant coping style. This limitation may indicate that these individuals were not using a single predominant coping style. Also the large variance of scores between participants limits the power to generalize the results. For further research studies in this area, the researcher proposes that a criterion be developed to assure that individuals in the sample really have a single predominant coping style (e.g., highest score on the scale for coping is 20% above other scores, etc.).

In the study discriminant function analysis was utilized to differentiate between mothers and fathers on the basis of their total coping styles. The use of this statistical technique is limited in that it does not inform the researcher as to the particular ways coping differs between the groups.

In summary, major limitations have been outlined for the study sample, questionnaire and analysis. Recommendations were presented to circumvent these limitations in future research.

Modification of the Conceptual Model
Based on Study Findings

Few research studies have assessed the different concepts in Moos and Tsu's conceptual model of coping with a physical illness (1977). The results of this study support some aspects of this model but also call into question other aspects. This model (see Chapter II, Figure 1) utilizes a unidirectional approach which does not support ongoing changes in coping that may occur at different stages of the child's illness. Even though coping can be perceived as an enduring response utilized in stressful situations, it may also be altered in certain individuals depending on the situation. Because of this potential alteration in coping, a feedback loop should exist from mother's and father's coping styles to the cognitive appraisal of the child's illness.

In addition, Moos and Tsu suggest that background and personal factors, illness-related factors and environmental and social factors affect a person's coping responses. The results in this study support few slight to moderate relationships between these factors and the coping styles utilized in the study. Changing this part of the model would be inappropriate until further research studies either support or refute these relationships.

A parent's coping style relative to the child's illness may promote or hinder the child's developmental level. Even though the outcome of this study did not show any correlations between the child's developmental level and the parents'

coping styles, a feedback loop should be utilized between these two concepts. The parents may have been biased when assessing their own child's developmental level in the study. For future research it is proposed that a nonfamilial person, such as a teacher, rate the child's developmental level and then note correlational relationships between these variables.

Finally, the nursing process should interface with this model primarily to increase the parents' awareness of the background and personal factors, illness-related factors and environmental and social factors, all of which may affect their responses when appraising the child's illness, participating in the adaptive tasks and utilizing different coping strategies. By becoming more aware of these factor effects, the parents may develop a deeper understanding for their responses in different situations and hopefully foster communication between the couple in regard to their coping styles.

The nursing process can also be utilized to increase parental awareness of the coping styles and to assist the couple to understand each other's styles of coping. Through the nurse's guidance as a counselor the couple can evaluate coping styles that have been more or less effective for them and thus support the more effective coping styles realizing that certain situations can alter their effectiveness. Through this process the parents' health potentials may be maximized and may, in turn, assist with fostering the family's health potential.

In summary, alterations in the conceptual model have been suggested based on some of the study findings. These suggested changes are noted in Figure 4 and may be further altered in the future based on research findings from other studies that measure the relationships of the variables in the model.

. Implications for Nursing Practice

From the review of literature, it is apparent that problems posed by a child with a chronic illness affect parents as well as significant others in the family unit. Rogers (1970) viewed an individual in combination with the environment as an open system, continuously exchanging energy. In this study the individual was the mother or father, constantly interacting with the daily stressors that may have been posed by the child's chronic illness. The purpose of this study was to determine predominant expressed coping styles of parents faced with a child having the chronic illness, asthma. In addition the study addressed the question of whether mothers and fathers could be discriminated from one another on the basis of their coping styles. The results indicated that mothers and fathers use a variety of coping styles as the predominantly expressed coping style. Secondly, it was possible to discriminate with 80% accuracy between mothers and fathers based on four coping styles.

Implications for practice drawn from these results support the nursing process proposed by Rogers (1970) that

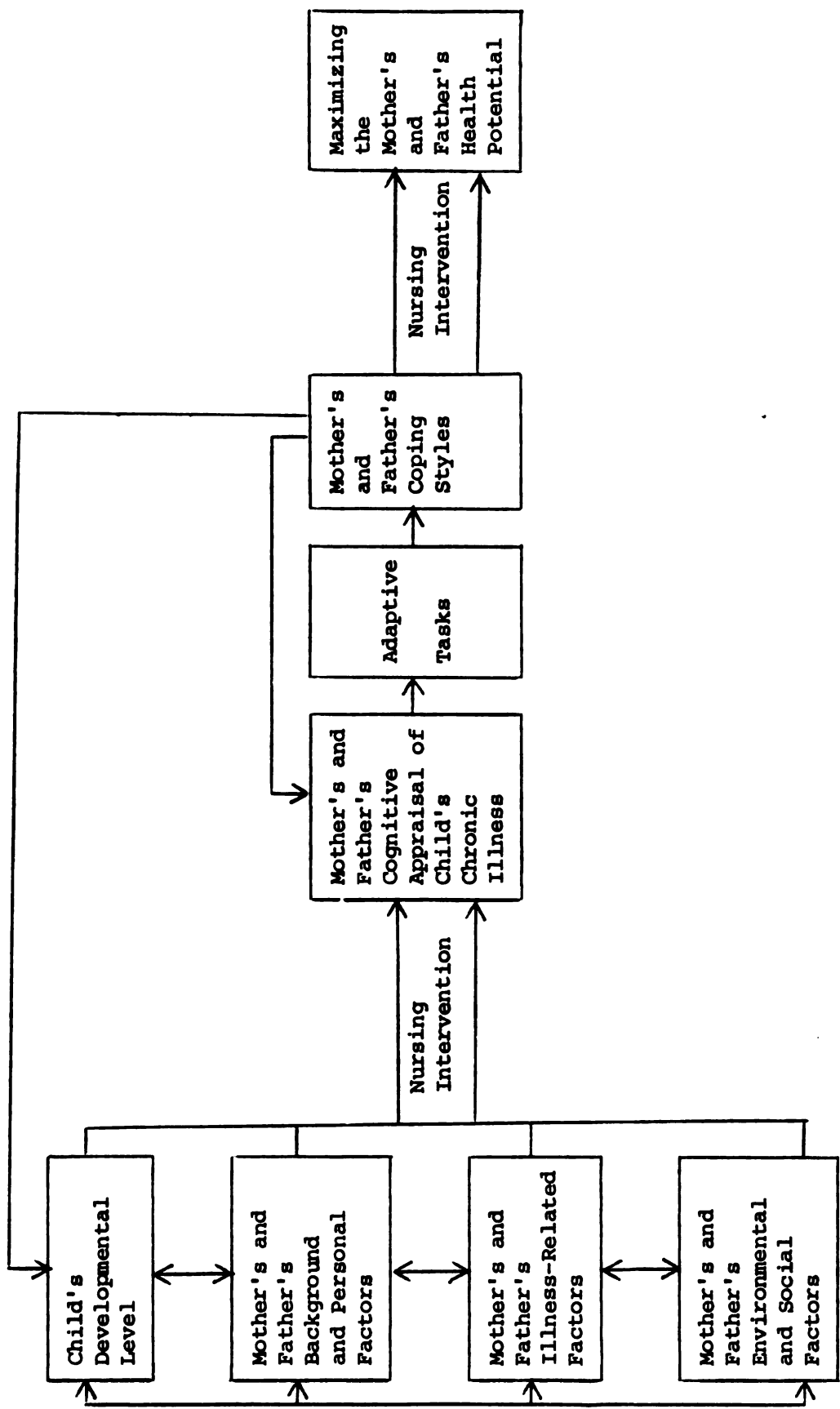


Figure 4. Modified Model of the Conceptual Framework.

provides nurses with an opportunity to assess, plan with, and evaluate parents in the many situations encountered when they are faced with a chronically ill child. When assessing the parents' varied coping styles utilized in different situations, the nurse can assist parents with plans for and evaluation of goals related to maximizing their health potential (see Chapter II).

Through assessment, the nurse can gather data in regard to intrapersonal and environmental stressors that may affect coping styles. Besides assessing stressors that may affect coping, the nurse can assess the predominant coping styles utilized by the parents to deal with problems encountered daily as well as coping styles utilized in acute illness situations. The nurse can pose different situations that may be encountered and provide examples of responses that would reflect the different coping styles. This assessment technique will assist the nurse to more fully understand the varied parental responses that can occur from one situation to another. The nurse should have the opportunity to assess both parents' reactions to the child's chronic illness, especially since this study supports the assumption that parents differ in their total coping styles.

The Parent Coping Profile developed for this study with minor modifications could be used as the assessment tool for parents with a chronically ill child. The instrument would assist the nurse and other interdisciplinary health

professionals in assessing the different types of coping styles utilized in different situations in regard to the child's illness. This assessment instrument would complement the initial step in the nursing process. Aside from being an assessment tool, it may stimulate parents to ask questions regarding their child's chronic illness, and thereby foster an increased parental awareness of the child's health state.

After the initial assessment has been completed, the nurse can assist the parents to evaluate the coping styles utilized in dealing with their child's chronic illness. In some cases, parents may be utilizing different predominant coping styles whereas in other cases both parents may be utilizing the same predominant coping style. These predominant styles may be complimentary to the dyad's functioning. Increasing the parents' awareness of their spouse's coping style through an explanation of coping and coping styles may foster an increased understanding of the spouse's responses to the child's illness. Then the nurse can assist the parents to evaluate the effectiveness of their coping with the child's chronic illness, by evaluating coping styles utilized in situations posed by the illness and noting the parents' satisfaction in solving problems when utilizing the style. If ineffective coping is identified, the nurse can identify short- and long-term goals that will promote more effective coping. Thus, the use of an alternative coping style in particular situations may be suggested in order to more

effectively manage problems that arise in dealing with the chronic illness.

Once the goals are established the nurse can intervene with strategies to cope with certain situations regarding the chronic illness. Anticipatory guidance can be utilized as an intervention to prepare the parents for frustrations, fears or problems that other parents have encountered with a chronically ill child. At times parents need to know that others have had similar problems and that these feelings are normal in the coping process. Finally, through evaluation skills the nurse can assist the family to evaluate whether they have met their goals and thus become more effective in their coping.

This nursing process is frequently altered when the child has an exacerbation of the illness such as, an asthmatic attack which requires hospitalization. The family is in a state of disequilibrium at this time and will be in need of intensive assessment and assistance with problem-solving strategies to cope with the problems at hand. These acute episodes may be an appropriate time to discuss with the parents how crises were dealt with previously and what strategies were successful and unsuccessful.

Through the use of discriminant function analysis this study demonstrated that parents do cope differently with their child's chronic illness. As a major nursing implication in relationship to the discriminant function analysis results,

it is imperative for the nursing professional to be cognizant that there are differences in coping between a mother and father when faced with the problems posed by a chronically ill child. Because these differences may affect the dyad's relationship as well as affect their response to the chronic illness, both parents must be included in an intervention to assist them to adapt to the stressors of their child's chronic illness.

Implications related to the extraneous variable, "developmental level of the child," merit discussion as they have implications for nursing practice. The parents encounter new situations as the child enters school. Competition with peers is dominant in this stage of development (Travis, 1976). Children may forget their restrictions in the excitement of competition which may precipitate an asthmatic attack. At this age children may be asked to stay overnight at a friend's house but may have to be restricted by the parents because the majority of their asthmatic attacks may occur at night. Parents need to be counseled in order to cope with these problems; they also need to be provided with anticipatory guidance to manage or prevent additional problems that could arise.

The nurse can also inform parents of support systems other than the health care system which might help them to cope with the daily stressors of the chronic illness. In this study the majority of the study subjects indicated they

had support from family, friends, or clergy when faced with problems posed by the illness. Nurses could further potentiate this support system by informing parents of community resources, such as the asthmatic support group sponsored by the local lung association or through community nurse referral.

In summary, the nursing process should be utilized to assist parents in coping with the ramifications of an asthmatic child. Nursing interventions should be initiated from the onset of the diagnosis of asthma and continued throughout the course of the disease at regular intervals. Nursing roles involving assessing, counseling, researching, problem-solving and evaluating were stressed. Anticipatory guidance was discussed as a way to assist parents with anticipating future problems and developing coping strategies for these problems. Support systems were discussed as a means to effectively discuss concerns about the child's illness and thus facilitate more effective coping strategies in regard to the child's illness. Nurses, through the use of the nursing process, can assist parents to become cognitively aware of their coping processes and provide alternative strategies in order to utilize the coping processes more effectively.

Implications for Future Research

Several implications for future research have evolved from this study. The volunteer study sample was composed predominantly of middle-class caucasians with some college education. This descriptive finding may have had an effect

on the predominant coping styles identified in the study. The researcher recommends repeating the study with a more representative, randomized sample which may provide more significant results in regard to predominant coping styles utilized. The researcher believes that the extraneous variables, developmental level of the child and number of years elapsed since the child was diagnosed with asthma, do have a more significant effect on coping styles than was demonstrated in the study. The following suggestions are proposed for future research investigations, based on the researcher's experience from conducting this study.

1. A replication of the study should be conducted with a larger, random sample of parents who have a school-age child with asthma. The larger sample size and randomization may provide greater significance in the results of predominant coping styles utilized by parents. It may also provide further supportive data on the ability to discriminate between mothers and fathers of asthmatic children on the basis of their coping styles.
2. A study of parents having asthmatic children belonging to different age ranges (e.g., preschool or adolescent) should be conducted to see whether predominant coping styles could be identified as well as attempting to discriminate between mothers and fathers based on their coping style.

3. Possible correlations between the coping styles and background and personal factors, illness-related factors and social and environmental factors should be researched in more depth. Utilization of a reliable and valid instrument to measure these factors would be desirable.
4. An open-ended interview with the mother and father of the school-age asthmatic child may provide information that could be added to the Parent Coping Profile, thus potentially increasing the reliability of the instrument.
5. A criterion should be established for the Z score in order to more clearly indicate the predominant coping style utilized by the parent. This criterion (e.g., 20% above other coping style scores for the individual) is recommended because of the large variance that was obtained in this study when utilizing the highest Z score to determine the predominant coping style. This variance limited the conclusions that could be drawn from the results.
6. The extraneous variable, "developmental level of the child," should be measured by a non-familial person (e.g., teacher) to avoid bias when rating the child. Then correlations should be accomplished to note any relationships between the parental coping styles and the extraneous variable.

7. The extraneous variable, "number of years since the child had been diagnosed with asthma," should continue to be pursued with a larger, randomized sample to note any significant relationships.
8. A longitudinal study needs to be conducted to research how predominant coping styles may change over time. The time intervals should include the time of diagnosis and periodic intervals during the chronic illness that would encompass acute infections as well as optimum health states of the child. This methodology would allow assessment of coping styles during various phases of the disease.
9. Experimental studies are needed to develop and evaluate nursing interventions and their effectiveness in the following areas: in increasing the couple's awareness of coping styles utilized in regard to their child's illness; in assisting the couple in altering their coping style to increase effectiveness in a given situation.

In summary, implications for further research included altering the present methodology to provide for an open-ended interview, use of a larger randomized sample, pursuit of studies regarding relationships between study variables and extraneous variables, conducting longitudinal as well as intervention studies, development of a criterion for Z score range to identify predominant coping styles and utilization

of similar research methodology with different chronic illnesses as well as with different age groups of children in order to attempt to identify discrimination between mothers and fathers based on their coping styles.

Implications for Education

Some implications for nursing education can be drawn from the results of the present study. From the review of the literature, it is evident that empirical research has not been used as a basis for substantiation of parental coping when faced with a chronically ill child. Both graduate and undergraduate nursing curricula deal with adaptation to stressors in the life cycle but frequently focus on a broad level. Nursing education needs to focus on coping styles and strategies utilized by individuals attempting to deal with stressors, such as a chronic illness and its ramifications.

Nursing needs to be more cognizant of the continued educational needs of professional nurses in practice, both in primary care, hospital and community settings. These nurses are interfacing with families of chronically ill children on a daily basis. By expanding their knowledge base through educational presentations about the effects of asthma on the family, these nurses can intervene more effectively to assist the family in realistically dealing with present or potential problems.

These educational presentations should include information on the effects of chronic illness upon parents and family

members as well as discussing the concept of coping as an adaptive response to stressors posed by the illness. The nursing professional should also be informed that fathers may be coping differently than mothers with their child's illness, thus making it imperative that both parents be assessed and aided in their use of coping strategies relative to the child's chronic illness.

Nurses also have a responsibility to the community to inform people about asthma and other chronic illnesses and to dispel fears and misinformation in regard to the disease process. Nurses need to be more actively involved in community education by providing information about management of chronic illnesses as well as providing information about local support groups and organizations that provide medical assistance.

In summary, implications for nursing education included alterations of the nursing curricula to provide in depth courses in adaptation to stressors such as those experienced by parents of chronically ill children. It was suggested that nursing education must also facilitate the professional nurse who works with chronically ill children to keep up-to-date with recent research. Through this process, nurses in primary care, hospital and community settings, can utilize appropriate and up-to-date nursing intervention to provide for continuity of care. It was also recommended that nurses must also educate consumers in regard to chronic illness through community

community programs by professional nurses who have expertise relative to the particular chronic illness, such as asthma.

Summary

In Chapter VI, a summary and interpretation of the research findings of this study were presented. Future research recommendations were made as well as recommendations for nursing in practice and education.

APPENDICES

APPENDIX A

PARENT COPING PROFILE

APPENDIX A

PARENT COPING PROFILE

(MOTHER)

(1) Site _____
 (2-4) Pt. No. _____
 (5) Card No. _____
 (6-9) Date _____
 (10) Form _____

INSTRUCTIONS: THE FOLLOWING IS A LIST OF STATEMENTS REGARDING HOW A PARENT COPES WITH A CHILD'S CHRONIC ILLNESS SUCH AS ASTHMA. YOUR RESPONSES TO THESE STATEMENTS WILL CONTRIBUTE TOWARD FUTURE NURSING INTERACTIONS AND INTERVENTIONS WITH THOSE PARENTS WHO HAVE A CHRONICALLY ILL CHILD. SINCE THIS IS A SURVEY OF FEELINGS IT IS DESIRED THAT YOU INDICATE YOUR OWN PERSONAL FEELINGS REGARDING THESE STATEMENTS, REGARDLESS OF WHAT YOU THINK OTHER PEOPLE WANT YOU TO SAY. YOUR NAME WILL NOT BE ASSOCIATED WITH THE DATA AND YOUR IDENTITY AND ALL RESPONSES WILL REMAIN CONFIDENTIAL.

IF YOU STRONGLY AGREE WITH THE STATEMENT, CIRCLE STRONGLY AGREE
 IF YOU MILDLY AGREE WITH THE STATEMENT, CIRCLE MILDLY AGREE
 IF YOU DON'T AGREE OR DISAGREE WITH THE STATEMENT, CIRCLE UNDECIDED
 IF YOU MILDLY DISAGREE WITH THE STATEMENT, CIRCLE MILDLY DISAGREE
 IF YOU STRONGLY DISAGREE WITH THE STATEMENT, CIRCLE STRONGLY DISAGREE

SOME OF THESE STATEMENTS MAY LOOK OR SEEM LIKE OTHERS. EACH STATEMENT IS DIFFERENT, AND SHOULD BE RATED BY ITSELF. THERE ARE NO RIGHT OR WRONG ANSWERS.

1. I try to seek some information about my child's chronic illness. (11)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
2. I discuss problems about my child's illness only with my child's doctor and my husband. (12)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
3. I do not depend on other people for assistance with my child's care. (13)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
4. I keep my concerns about my child's chronic illness to myself. (14)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
5. I do not know what to do when my child becomes ill. (15)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
6. I frequently must get away from the problems that occur with my chronically ill child. (16)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
7. I need to know why certain diagnostic procedures are done for my child. (17)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

8. I restrict my child's activity when he/she is ill so he/she can recover promptly. (18)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
9. I have too many tasks to accomplish when my child is ill. (19)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
10. I have established a daily routine which is not dependent on my child's illness. (20)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
11. I dislike attending social gatherings because of my child's chronic illness. (21)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
12. I have adjusted my lifestyle to adapt to my child's chronic illness. (22)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
13. My child's chronic illness is a serious health problem. (23)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
14. My child's illness will soon be cured. (24)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
15. My child's future does not seem dark to me. (25)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
16. Things would be better if the doctor would talk with me in more detail about my child's illness. (26)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
17. I believe that I should keep things as much as possible like they were before my child became ill. (27)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
18. I advise the doctor whenever there is a new problem with my child's illness. (28)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
19. I watch my child closely for any medical problems. (29)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
20. I am unable to handle most problems that occur as a result of my child's chronic illness. (30)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

21. I might as well give up because I cannot make things better for my child. (31)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
22. My husband and I should seek professional counseling about our child's illness. (32)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
23. I have developed some new habits (e.g., smoking, overeating, or drinking) since being told my child has a chronic illness. (33)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
24. I spend time at little tasks to keep me from thinking about my child's illness. (34)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
25. I wish there was someone I could depend on to help me care for my child. (35)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
26. I am establishing a new life style--new friends, new activities--since my child developed a chronic illness. (36)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
27. I often read books or articles about my child's chronic illness. (37)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
28. My child's chronic illness may cause future health problems. (38)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
29. I talk with family members and friends about my child's chronic illness. (39)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
30. I call my child's doctor often regarding the treatment of his/her chronic illness. (40)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
31. To prevent my child from developing complications I follow the doctor's orders. (41)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
32. I seek out friends who understand how difficult it is for me at times because I have a chronically ill child. (42)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
33. Since my child has been diagnosed as having a chronic illness I tend to stay at home more often. (43)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

34. I enjoy being at home despite my child's chronic illness. (44)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
35. My child's illness interferes with our family life. (45)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
36. When my child becomes ill I need to know exactly what meaning that illness has on his/her future health. (46)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
37. My child does not have a severe chronic illness. (47)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
38. I always worry about my child's health. (48)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
39. I follow the doctor's orders for the care of my child's chronic illness. (49)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
40. If my child's doctor uses medical terms I don't understand I insist he explain them to me. (50)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
41. When I take my child to the doctor I bring a written list of questions with me. (51)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
42. This chronic illness may cause my child to be sick often. (52)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
43. I tend to ignore problems associated with my child's illness. (53)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
44. I am able to solve problems posed by my child's chronic illness. (54)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
45. I don't like to think about my child's illness. (55)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
46. Even though my child may not feel well, I make him/her do his/her schoolwork. (56)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

34. I enjoy being at home despite my child's chronic illness. (44)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
35. My child's illness interferes with our family life. (45)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
36. When my child becomes ill I need to know exactly what meaning that illness has on his/her future health. (46)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
37. My child does not have a severe chronic illness. (47)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
38. I always worry about my child's health. (48)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
39. I follow the doctor's orders for the care of my child's chronic illness. (49)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
40. If my child's doctor uses medical terms I don't understand I insist he explain them to me. (50)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
41. When I take my child to the doctor I bring a written list of questions with me. (51)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
42. This chronic illness may cause my child to be sick often. (52)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
43. I tend to ignore problems associated with my child's illness. (53)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
44. I am able to solve problems posed by my child's chronic illness. (54)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
45. I don't like to think about my child's illness. (55)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
46. Even though my child may not feel well, I make him/her do his/her schoolwork. (56)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

47. My child's health is a concern to me. (57)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
48. A slight cold may cause a complication to my child's chronic illness. (58)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
49. I am able to solve problems associated with my child's chronic illness as well as other mothers in similar situations. (59)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
50. My child has seen other physicians for medical advice about this illness. (60)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

PARENT COPING PROFILE

(FATHER)

(1) Site _____
 (2-4) Pt. No. _____
 (5) Card No. _____
 (6-9) Date _____
 (10) Form _____

INSTRUCTIONS: THE FOLLOWING IS A LIST OF STATEMENTS REGARDING HOW A PARENT COPE WITH A CHILD'S CHRONIC ILLNESS SUCH AS ASTHMA. YOUR RESPONSES TO THESE STATEMENTS WILL CONTRIBUTE TOWARD FUTURE NURSING INTERACTIONS AND INTERVENTIONS WITH THOSE PARENTS WHO HAVE A CHRONICALLY ILL CHILD. SINCE THIS IS A SURVEY OF FEELINGS IT IS DESIRED THAT YOU INDICATE YOUR OWN PERSONAL FEELINGS REGARDING THESE STATEMENTS, REGARDLESS OF WHAT YOU THINK OTHER PEOPLE WANT YOU TO SAY. YOUR NAME WILL NOT BE ASSOCIATED WITH THE DATA AND YOUR IDENTITY AND ALL RESPONSES WILL REMAIN CONFIDENTIAL.

IF YOU STRONGLY AGREE WITH THE STATEMENT, CIRCLE STRONGLY AGREE
 IF YOU MILDLY AGREE WITH THE STATEMENT, CIRCLE MILDLY AGREE
 IF YOU DON'T AGREE OR DISAGREE WITH THE STATEMENT, CIRCLE UNDECIDED
 IF YOU MILDLY DISAGREE WITH THE STATEMENT, CIRCLE MILDLY DISAGREE
 IF YOU STRONGLY DISAGREE WITH THE STATEMENT, CIRCLE STRONGLY DISAGREE

SOME OF THESE STATEMENTS MAY LOOK OR SEEM LIKE OTHERS. EACH STATEMENT IS DIFFERENT, AND SHOULD BE RATED BY ITSELF. THERE ARE NO RIGHT OR WRONG ANSWERS

1. I try to seek more information about my child's chronic illness. (11)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
2. I discuss problems about my child's illness only with my child's doctor and my wife. (12)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
3. I do not depend on other people for assistance with my child's care. (13)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
4. I keep my concerns about my child's chronic illness to myself. (14)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
5. I do not know what to do when my child becomes ill. (15)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
6. I frequently must get away from the problems that occur with my chronically ill child. (16)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
7. I need to know why certain diagnostic procedures are done for my child. (17)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

8. I restrict my child's activity when he/she is ill so he/she can recover promptly. (18)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
9. I have too many tasks to accomplish when my child is ill. (19)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
10. I have established a daily routine which is not dependent on my child's illness. (20)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
11. I dislike attending social gatherings because of my child's chronic illness. (21)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
12. I have adjusted my lifestyle to adapt to my child's illness. (22)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
13. My child's chronic illness is a serious health problem. (23)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
14. My child's illness will soon be cured. (24)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
15. My child's future does not seem dark to me. (25)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
16. Things would be better if the doctor would talk with me in more detail about my child's illness. (26)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
17. I believe that I should keep things as much as possible like they were before my child became ill. (27)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
18. I advise the doctor whenever there is a new problem with my child's illness. (28)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
19. I watch my child closely for any medical problems. (29)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
20. I am unable to handle most problems that occur as a result of my child's chronic illness. (30)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

21. I might as well give up because I cannot make things better for my child. (31)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
22. My wife and I should seek professional counseling about my child's illness. (32)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
23. I have developed some new habits (e.g., smoking, overeating, or drinking) since being told my child has a chronic illness. (33)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
24. I spend time at little tasks to keep me from thinking about my child's illness. (34)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
25. I wish there was someone I could depend on to help me care for my child. (35)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
26. I am developing a new life style--new friends, new activities--since my child developed a chronic illness. (36)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
27. I often read books or articles about my child's chronic illness. (37)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
28. My child's chronic illness may cause future health problems. (38)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
29. I talk with family members and friends about my child's chronic illness. (39)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
30. I call my child's doctor often regarding the treatment of his/her chronic illness. (40)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
31. To prevent my child from developing complications I follow the doctor's orders. (41)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
32. I seek out friends who understand how difficult it is for me at times because I have a chronically ill child. (42)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
33. Since my child has been diagnosed as having a chronic illness I tend to stay at home more often. (43)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

34. I enjoy being at home despite my child's chronic illness. (44)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
35. My child's illness interferes with our family life. (45)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
36. When my child becomes ill I need to know exactly what meaning that illness has on his/her future health. (46)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
37. My child does not have a severe chronic illness. (47)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
38. I always worry about my child's health. (48)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
39. I follow the doctor's orders for the care of my child's chronic illness. (49)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
40. If my child's doctor uses medical terms I don't understand I insist he explain them to me. (50)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
41. When I take my child to the doctor I bring a written list of questions with me. (51)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
42. This chronic illness may cause my child to be sick often. (52)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
43. I tend to ignore problems associated with my child's illness. (53)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
44. I am able to solve problems posed by my child's chronic illness. (54)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
45. I don't like to think about my child's illness. (55)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
46. Even though my child may not feel well, I make him/her do his/her schoolwork. (56)
 Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

47. My child's health is a concern to me. (57)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
48. A slight cold may cause a complication to my child's illness. (58)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
49. I am able to solve problems associated with my child's chronic illness as well as other fathers in similar situations. (59)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree
50. My child has seen other physicians for medical advice about this illness. (60)
Strongly Agree Mildly Agree Undecided Mildly Disagree Strongly Disagree

APPENDIX B

CHILD HEALTH QUESTIONNAIRE

APPENDIX B

CHILD HEALTH QUESTIONNAIRE

BELOW ARE A SERIES OF DESCRIPTIONS OF BEHAVIOR OFTEN SHOWN BY CHILDREN. AFTER EACH STATEMENT ARE THREE COLUMNS, "CERTAINLY APPLIES," "APPLIES SOMEWHAT," AND "DOESN'T APPLY." IF THE CHILD DEFINITELY SHOWS THE BEHAVIOR DESCRIBED BY THE STATEMENT, PLACE AN "X" UNDER THE "CERTAINLY APPLIES" COLUMN. IF THE CHILD SHOWS THE BEHAVIOR DESCRIBED BY THE STATEMENT BUT TO A LESSER DEGREE OR LESS OFTEN, PLACE AN "X" UNDER THE "APPLIES SOMEWHAT" COLUMN. IF, AS FAR AS YOU ARE AWARE, THE CHILD DOES NOT SHOW THE BEHAVIOR, PLACE AN "X" IN THE "DOESN'T APPLY" COLUMN. PLEASE PUT AN "X" FOR EACH STATEMENT.

STATEMENT	CERTAINLY APPLIES	APPLIES SOMEWHAT	DOESN'T APPLY
1. Has good physical health (excluding asthma condition).....	_____	_____	_____ (11)
2. Rarely complains of aches and pains (excluding asthma condition).....	_____	_____	_____ (12)
3. Speech is clear for age.....	_____	_____	_____ (13)
4. Demonstrates appropriate use of intelligence.....	_____	_____	_____ (14)
5. Is unique, original, or creative.....	_____	_____	_____ (15)
6. Demonstrates a wide range of interests.....	_____	_____	_____ (16)
7. Is intellectually curious.....	_____	_____	_____ (17)
8. Relates well with other children.....	_____	_____	_____ (18)
9. Relates well with teachers.....	_____	_____	_____ (19)
10. Can quickly establish a trusting relationship.....	_____	_____	_____ (20)
11. Can assume responsibility appropriate for age.....	_____	_____	_____ (21)

STATEMENT	CERTAINLY APPLIES	APPLIES SOMEWHAT	DOESN'T APPLY	
12. Demonstrates leadership with peers.....	_____	_____	_____	(22)
13. Demonstrates a wide range of feelings appropriately.....	_____	_____	_____	(23)
14. Expresses himself/herself well (is understood by others).....	_____	_____	_____	(24)
15. Expresses both positive feelings (love) and negative feelings (anger) directly.....	_____	_____	_____	(25)
16. Is accepting of himself/ herself.....	_____	_____	_____	(26)
17. Is free and spontaneous in play.	_____	_____	_____	(27)
18. Utilizes a variety of play materials.....	_____	_____	_____	(28)
19. Demonstrates flexibility in dealing with play materials or problems which arise.....	_____	_____	_____	(29)
20. Demonstrates flexibility in dealing with other children.....	_____	_____	_____	(30)
21. Are there any other special characteristics which would be important in gaining a fuller understanding of this child?				
_____				(31-
_____				40)

APPENDIX C

SOCIODEMOGRAPHIC QUESTIONNAIRE

APPENDIX C

SOCIODEMOGRAPHIC QUESTIONNAIRE

(1) Site _____
(2-4) Pt. No. _____
(5) Card No. _____
(6-9) Date _____
(10) Form _____

THE FOLLOWING QUESTIONS DESCRIBE GENERAL THINGS ABOUT YOU. AS YOU ARE FILLING OUT THIS QUESTIONNAIRE, YOU ARE ASKED EITHER TO CHECK OR LIST YOUR RESPONSE TO THE STATEMENTS. THIS INFORMATION WILL BE USED BY THE RESEARCHER TO DETERMINE COMMON CHARACTERISTICS OF THE PARTICIPANTS IN THE STUDY. YOUR NAME WILL NOT BE ASSOCIATED WITH THE DATA, AND YOUR IDENTITY AND ALL RESPONSES WILL REMAIN CONFIDENTIAL. PLEASE ANSWER THESE QUESTIONS TO THE BEST OF YOUR ABILITY.

1. Age: _____ (WRITE IN YOUR PRESENT AGE) (11,12)

2. Sex: (CHECK ONE)

1. Male _____ (13)
2. Female _____

3. What is your racial or ethnic background? (CHECK ONE)

1. White _____ (14)
2. Black _____
3. Mexican-American _____
4. American Indian _____
5. Oriental _____
6. Other (Specify) _____

4. Taking all sources of money into consideration, what was your family's total income before taxes and other deductions for the past 12 months? (CHECK ONE)

- | | | |
|-----------------------------|-----------------------------|---------|
| 00. Below \$5,000 _____ | 05. \$13,000-\$14,999 _____ | (15,16) |
| 01. \$5,000-\$6,999 _____ | 06. \$15,000-\$16,999 _____ | |
| 02. \$7,000-\$8,999 _____ | 07. \$17,000-\$19,999 _____ | |
| 03. \$9,000-\$10,999 _____ | 08. \$20,000-\$24,999 _____ | |
| 04. \$11,000-\$12,999 _____ | 09. \$25,000 or over _____ | |

5. Are you the head of the household? (PLEASE CHECK ONE)

1. Yes _____ → (GO TO QUESTION 7) 2. No _____ (17)
↓

6. How much schooling have you had (highest grade completed)?
(CHECK ONE)

1. None or some grammar school (less than 7 grades completed) _____ (18)
2. Junior high school (9 grades completed) _____
3. Some high school (10 or 11 grades) _____
4. Graduated from high school _____
5. Technical, business, or trade school _____
6. Some college (less than 4 years completed) _____
7. Graduated from college _____
8. Postgraduate college or professional _____

7. Is the head of the household now working at a regular job, unemployed, a housewife, disabled, or other? (CHECK ONE)

1. Unemployed or laid off _____ (19)
2. Disabled _____ → (GO TO
3. Housewife _____ → QUESTION 9)
4. Other (Specify) _____
5. Working now on a regular job _____
↓

8. What is the main occupation of the head of the household?
(WRITE IN)

_____ (20)

9. How much schooling has the head of the household had (highest grade completed)? (CHECK ONE)

1. None or some grammar school (less than 7 grades completed) _____ (21)
2. Junior high school (9 grades completed) _____
3. Some high school (10 or 11 grades) _____
4. Graduates from high school _____
5. Technical, business or trade school _____
6. Some college (less than 4 years completed) _____
7. Graduated from college _____
8. Postgraduate college or professional _____

10. Do you have a history of a long term or chronic illness(es)?
(CHECK ONE)

1. Yes _____ 2. No _____ → (GO TO QUESTION 13) (22)
↓

11. Please list the chronic illness(es).

(23-28)

12. In what ways has your chronic illness(es) affected your life? (WRITE IN YOUR ANSWERS)

(29-33)

13. Did you have asthma or allergies as a child?
(PLEASE CHECK ONE)

1. Yes ☐
↓

2. ☐ → (GO TO QUESTION 16)

(34)

14. Were you sick often as a child because of the asthma or allergies? (PLEASE CHECK ONE)

1. Yes ☐

2. No ☐

(35)

15. As a child were you able to do the normal activities such as participating in active sports, ride a bike, &/or play with friends despite your asthma or allergies? (PLEASE CHECK ONE)

1. Yes ☐

2. No ☐

(36)

16. Do you have a family history of allergies or asthma?
(PLEASE CHECK ONE)

1. Yes ☐
↓

2. No ☐ → (GO TO QUESTION 18)

(37)

17. Specify who had asthma or allergies in your family (e.g., father, mother, children, aunt, uncle, etc.).
(WRITE IN ANSWER)

(38-41)

18. Who lives in your household besides you, your spouse, and your asthmatic child? (CHECK AS MANY ANSWERS THAT APPLY TO YOU)
1. No one else _____ (42-44)
 2. Other children _____
 3. Other relatives besides children _____
 4. Non-related persons _____
19. How many children are presently living at home? (PLEASE CHECK ONE)
1. One _____ (45)
 2. Two _____
 3. Three _____
 4. Four _____
 5. More than four _____
20. Do the unfamiliar surroundings of a clinic or a hospital upset you at times? (PLEASE CHECK ONE)
1. Yes _____ 2. No _____ (46)
21. Do you think you have support from other sources such as family, friends, clergy, etc., when attempting to deal with your child's chronic illness? (PLEASE CHECK ONE)
1. Yes _____ 2. No _____ (47)
- THE REMAINING QUESTIONS WILL PERTAIN TO THE ASTHMATIC CHILD IN THIS STUDY.
22. What is the present age of your asthmatic child in this study? _____ (48,49)
23. At what age was this child diagnosed with asthma? _____ (50,51)
24. How often does this child take medication or receive a special treatment for his asthma? (PLEASE CHECK ONE)
1. At least once a day _____ (52)
 2. Once a week _____
 3. Only as needed _____
 4. Not on medication or special treatment _____
 5. Other (Specify) _____
25. How many days did this child miss school because of illness this past year? (IF YOU DON'T KNOW EXACT NUMBER OF DAYS, PLEASE ESTIMATE)
- _____ (53-55)

26. How often have you contacted this child's doctor in the past year (by phone or by office visit) about his/her asthma?
(IF YOU DON'T KNOW EXACT NUMBER OF CONTACTS, PLEASE ESTIMATE)

(56,57)

27. In the past year how often has this child been in the hospital for asthma complications (including emergency room visits)?
(IF YOU DON'T KNOW EXACT NUMBER OF VISITS, PLEASE ESTIMATE)

(58,59)

28. In the past year how many asthmatic attacks has this child experienced? (IF YOU DON'T KNOW THE EXACT NUMBER OF ATTACKS, PLEASE ESTIMATE)

(60,61)

29. Do you consider yourself the primary care person for this asthmatic child? (PLEASE CHECK ONE)

1. Yes _____ 2. No _____

(62)

30. Is this child currently experiencing symptoms of a respiratory illness (e.g., wheezing, coughing, lung congestion)? (CHECK ONE)

1. Yes _____ 2. No. _____

(63)

Keypunch
Dup. Col.
1-4, Col.
5=2, Dup.
Col. 6-10.

BELOW ARE A SERIES OF DESCRIPTIONS OF BEHAVIOR OFTEN SHOWN BY CHILDREN. AFTER EACH STATEMENT ARE THREE COLUMNS, "CERTAINLY APPLIES," "APPLIES SOMEWHAT," AND "DOESN'T APPLY." IF THE CHILD DEFINITELY SHOWS THE BEHAVIOR DESCRIBED BY THE STATEMENT, PLACE AN "X" UNDER THE "CERTAINLY APPLIES" COLUMN. IF THE CHILD SHOWS THE BEHAVIOR DESCRIBED BY THE STATEMENT BUT TO A LESSER DEGREE OR LESS OFTEN, PLACE AN "X" UNDER THE "APPLIES SOMEWHAT" COLUMN. IF, AS FAR AS YOU ARE AWARE, THE CHILD DOES NOT SHOW THE BEHAVIOR, PLACE AN "X" IN THE "DOESN'T APPLY" COLUMN. PLEASE PUT AN "X" FOR EACH STATEMENT.

STATEMENT	CERTAINLY APPLIES	APPLIES SOMEWHAT	DOESN'T APPLY	
1. Has good physical health (excluding asthma condition).....	_____	_____	_____	(11)

STATEMENT	CERTAINLY APPLIES	APPLIES SOMEWHAT	DOESN'T APPLY	
2. Rarely complains of aches and pains (excluding asthma condition).....	_____	_____	_____	(12)
3. Speech is clear for age.....	_____	_____	_____	(13)
4. Demonstrates appropriate use of intelligence.....	_____	_____	_____	(14)
5. Is unique, original, or creative.....	_____	_____	_____	(15)
6. Demonstrates a wide range of interests.....	_____	_____	_____	(16)
7. Is intellectually curious.....	_____	_____	_____	(17)
8. Relates well with other children.....	_____	_____	_____	(18)
9. Relates well with teachers.....	_____	_____	_____	(19)
10. Can quickly establish a trusting relationship.....	_____	_____	_____	(20)
11. Can assume responsibility appropriate for age.....	_____	_____	_____	(21)
12. Demonstrates leadership with peers.....	_____	_____	_____	(22)
13. Demonstrates a wide range of feelings appropriately.....	_____	_____	_____	(23)
14. Expresses himself/herself well (is understood by others).....	_____	_____	_____	(24)
15. Expresses both positive feelings (love) and negative feelings (anger) directly.....	_____	_____	_____	(25)
16. Is accepting of himself/herself.	_____	_____	_____	(26)
17. Is free and spontaneous in play.	_____	_____	_____	(27)
18. Utilizes a variety of play materials.....	_____	_____	_____	(28)

STATEMENT	CERTAINLY APPLIES	APPLIES SOMEWHAT	DOESN'T APPLY	
19. Demonstrates flexibility in dealing with play materials or problems which arise.....	_____	_____	_____	(29)
20. Demonstrates flexibility in dealing with other children.....	_____	_____	_____	(30)
21. Are there any other special characteristics which would be important in gaining a fuller understanding of this child?				
_____				(31-
_____				40)

GO TO NEXT QUESTIONNAIRE "PARENT COPING PROFILE."

APPENDIX D

STATEMENTS UTILIZED FROM CAROL DWYER'S THESIS

APPENDIX D

STATEMENTS UTILIZED FROM CAROL DWYER'S THESIS

Scale	Reliabilities
Vigilant Focusing	.57
1. I try to seek more information about my child's chronic illness.	
16. Things would be better if the doctor would talk with me in more detail about my child's illness.	
22. My husband/wife and I should seek professional counseling about our child's illness.	
Minimization	.41
24. I spend time at little tasks to keep me from thinking about my child's illness.	
Tackling	.68
39. I follow the doctor's orders for the care of my child's chronic illness.	
Capitulating	.82
21. I might as well give up because I cannot make things better for my child.	

APPENDIX E

CHILD HEALTH QUESTIONNAIRE MAJOR CATEGORIES

APPENDIX E

CHILD HEALTH QUESTIONNAIRE MAJOR CATEGORIES

Physical

1. has good physical health
2. rarely complains of aches and pains

Cognitive

3. speech is clear for age
4. demonstrates appropriate use of intelligence
5. is unique, original, or creative
6. demonstrates a wide range of interests
7. is intellectually curious

Social

8. relates well with other children
9. relates well with teachers
10. can quickly establish a trusting relationship
11. can assume responsibility appropriate for age
12. demonstrates leadership with peers

Emotional

13. demonstrates a wide range of feelings appropriately
14. expresses himself/herself well (is understood by others)
15. expresses both positive feelings (love) and negative feelings (anger) directly
16. is accepting of self

Play

17. is free and spontaneous in play
18. utilizes a variety of play materials
19. demonstrates flexibility in dealing with play materials or problems which arise
20. demonstrates flexibility in dealing with other children

APPENDIX F

DISCRIMINANT FUNCTION FORMULA

APPENDIX F

DISCRIMINANT FUNCTION FORMULA

The following formula was utilized to compute the mean discriminant score:

$$\begin{aligned} G_p D_1 = & \beta_1 \text{gp.Z score Vigilant Focusing} + \\ & \beta_2 \text{gp.Z score Tackling} + \\ & \beta_3 \text{gp.Z score Capitulating} + \\ & \beta_4 \text{gp.Z score Minimization} + \\ & \beta_5 \text{gp.Z score Avoiding} \end{aligned}$$

$G_p D_1$ = group mean discriminant score

β = weight coefficient for a given coping style

gp.Z score = group standard score of the discriminating variables

APPENDIX G

INITIAL CONTACT CONSENT FORM

APPENDIX G

INITIAL CONTACT CONSENT FORM

MICHIGAN STATE UNIVERSITY
COLLEGE OF NURSING
INITIAL CONTACT CONSENT FORM

I, _____, would like to be contacted by Joan Young R.N. concerning participation in a research study on ways that parents of asthmatic children deal with this chronic illness. This consent form only gives permission to contact me about the study. This form does not obligate me to participate in this study.

Signature of parent _____
Date _____

Signature of witness _____
Date _____

The nurse may use this phone number to contact me:

(please fill in your phone number)

Are you and your spouse the biological parents of your asthmatic child?

(please check) Yes _____ No _____

APPENDIX H

COVER LETTER

APPENDIX H
COVER LETTER

MICHIGAN STATE UNIVERSITY
COLLEGE OF NURSING
COVER LETTER

Dear

I have talked to you previously concerning participation in the coping research study. At that time you indicated that both you and your spouse would be willing to participate in this study. Enclosed is the consent form and the questionnaires for this study. Both of you will each complete a separate set of questionnaires entitled: (1) Parent Coping Profile, (2) Health Perceptions Questionnaire, and (3) Socio-demographic Questionnaire in addition to the consent form. You will both need to sign the consent form. Please read the instructions for each questionnaire carefully and answer each question with only one response.

I ask that you do not consult with one another as it will affect the results of this study.

Sincerely,

Joan T. Young, R.N.
Family Nurse Clinician Student

Enclosures

APPENDIX I

CONSENT FORM

APPENDIX I

CONSENT FORM

MICHIGAN STATE UNIVERSITY
COLLEGE OF NURSING
CONSENT FORM

Investigator: Joan T. Young, R.N., B.S.N.
Graduate Student, Family Nurse Clinician Program
College of Nursing A 215
Michigan State University
(517) 353-9553

Date _____

Dear _____

The study in which you are about to participate is designed to determine what coping styles parents utilize to cope with their chronically ill child. The results of this study will be utilized to determine how nurses can help parents who have a chronically ill child. This study is being conducted by myself as part of the requirements for a master's degree in nursing.

Please complete the enclosed consent form and the questionnaires and return in the stamped envelope provided within one week. Participation in the study should take 30-40 minutes of your time and will require you to respond to a series of questions as honestly and accurately as possible. Please do not consult with your spouse while you are answering the questionnaires. As a result of participation in this study, you may be more aware of the coping style that you utilize to deal with your chronically ill child and your feelings about your child's chronic illness. If you have any questions, please call the researcher at any time.

Please be assured that your identity will be anonymous and your answers will remain confidential. You may withdraw from the study at any time. Withdrawal from this study will in no way affect the care your child is now receiving.

I will be pleased to send you a summary of the results of the study following its completion if you so desire.

Thank you for your time, effort, and cooperation.

Sincerely,

Joan T. Young, R.N.
Family Nurse Clinician Student
(517) 353-9553

Enclosures

I voluntarily consent to participate in this research study. I have had an opportunity to ask questions. I may change my mind to participate in the study before the study is completed if I choose to do so.

Signature of mother _____	Date _____
Signature of father _____	Date _____
Signature of investigator _____	Date _____

APPENDIX J

**SCALES AND RELIABILITIES FOR
PARENT COPING PROFILE**

APPENDIX J

SCALES AND RELIABILITIES FOR PARENT COPING PROFILE

Scales and Reliabilities for Study

Scales	Reliabilities
Vigilant Focusing	.66
1. I try to seek more information about my child's chronic illness.	
7. I need to know why certain diagnostic procedures are done for my child.	
*16. Things would be better if the doctor would talk with me in more detail about my child's illness.	
*19. I watch my child closely for any medical problems.	
22. My husband/wife and I should seek professional counseling about our child's illness.	
27. I often read books or articles about my child's chronic illness.	
36. When my child becomes ill I need to know exactly what meaning that illness has on his/her future.	
*38. I always worry about my child's health.	
40. If my child's doctor uses medical terms I don't understand I insist he explain them to me.	
41. When I take my child to the doctor I bring a written list of questions with me.	
Minimization	.77
13. My child's chronic illness is a serious health problem.	
14. My child's illness will soon be cured.	
28. My child's chronic illness may cause future health problems.	
35. My child's illness interferes with our family life.	
37. My child does not have a severe chronic illness.	
42. This chronic illness may cause my child to be sick often.	
*43. I tend to ignore problems associated with my child's illness.	
*45. I don't like to think about my child's illness.	
47. My child's health is a concern to me.	
48. A slight cold may cause a complication to my child's chronic illness.	
Tackling	.68
5. I do not know what to do when my child becomes ill.	
*8. I restrict my child's activity when he/she is ill so he/she can recover promptly.	
9. I have too many tasks to accomplish when my child is ill.	

Scales

Reliabilities

Tackling (con't)

.68

- 18. I advise the doctor whenever there is a new problem with my child's illness.
- *20. I am unable to handle most problems that occur as a result of my child's chronic illness.
- 29. I talk with family members and friends about my child's chronic illness.
- *31. To prevent my child from developing complications I follow the doctor's orders.
- 39. I follow the doctor's orders for the care of my child's chronic illness.
- *44. I am unable to solve problems posed by my child's chronic illness.
- 49. I am unable to solve problems associated with my child's chronic illness as well as other mothers/fathers in similar situations.

Capitulating

.74

- *2. I discuss problems about my child's illness only with my child's doctor and my husband/wife.
- *3. I do not depend on other people for assistance with my child's care.
- *4. I keep concerns about my child's chronic illness to myself.
- 11. I dislike attending social gatherings because of my child's chronic illness.
- 15. My child's future does not seem dark to me.
- *17. I believe that I should keep things as much as possible like they were before my child became ill.
- 21. I might as well give up because I cannot make things better for my child.
- 25. I wish there was someone I could depend on to help me care for my child.
- *30. I call my child's doctor often regarding the treatment of his/her chronic illness.
- 33. Since my child has been diagnosed as having a chronic illness I tend to stay at home more often.

Avoiding

.75

- 6. I frequently must get away from the problems that occur with my chronically ill child.
- *10. I have established a daily routine which is not dependent on my child's illness.
- *12. I have adjusted my lifestyle to adapt to my child's chronic illness.
- 23. I have developed some new habits (e.g., smoking, overeating, or drinking) since being told my child has a chronic illness.
- 24. I spend time at little tasks to keep me from thinking about my child's illness.
- 26. I am establishing a new life style--new friends, new activities--since my child developed a chronic illness.

Scales

Reliabilities

Avoiding (con't)

.75

- 32. I seek out friends who understand how difficult it is for me at times because I have a chronically ill child.
- 34. I enjoy being at home despite my child's chronic illness.
- *46. Even though my child may not feel well, I make him/her do his/her schoolwork.
- *50. My child has seen other physicians for medical advice about this illness.

*Deleted items from reliability analysis.

APPENDIX K

**Z SCORES OF EACH COPING STYLE FOR
EACH PARENT IN THE STUDY**

Table K-1.--Z Scores of Each Coping Style for Each Mother and Father in the Study (Sequentially Arranged by Dyad with Mother First).

Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
64114	-137785	-88762	124058	168670*
-4622	23262	-11203	124058	213449*
172851*	-173673	92209	98654	56721
-4622	-64102	-37056	47845	56721*
128482	-191467	-88762	149463	235839*
-93358	-48314	-114615	47845*	-72838
150666*	-84102	92209	-104582	-32838
-71174	-30420	40503*	-79177	-55228
-137726	41156*	-11203	-79177	-77618
-48990	94839*	14650	-104582	-100008
10168	-12526	14650	-104582	56721*
-71174	23262	40503*	-104582	-77618
17562	-84102	40503	-104582	56721*
172851*	-191467	92209	-28368	34331
-4622	148521*	66356	-104582	-77618
-137726	166415*	-88762	-104582	-55228
106298	-84102	40503	124058*	11941
84114*	-66208	14650	22441	56721
191337	273780*	118062	-28368	-77618
17562	41156*	40503	-79177	-100008
106298*	5368	-114615	-79177	-10449
-26806	184309*	-37056	-53773	-100008
106298	-137785	92209	98654	123890*
-93358	-12526	-192174	98654*	-55228
39746	-84102	-11203	124058*	34331
-26806	-48314	118682*	-2964	-55228
39746	59051	118062*	-104582	-77618
128482*	23262	92209	22441	11941
61930	23262	14650	73249*	-10449
-93358	94839*	-166321	73249	79111
84114	-119891	14650	301889	370178*
-48990	-12526	14650*	-2964	-77618
-115542	5368*	-62909	-53773	-55228
106298*	-137785	40503	-104582	-77618
39746	-30420	40503	22441	146280*
-270830	112733*	-88762	-53773	-55228
39746	-30420	-140468	149463*	79111
84114	-66208	-295586	174867*	-100008
-4622*	-12526	-88762	-79177	-10449
-4622	94839	118062*	-79177	-77618
150666	-48314	14650	-53773	191060*
61930*	-48314	66356	-28368	-100008

Table K-1.--continued

Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
-4622	-12526	118062*	-79177	-100008
-93358	23262	40503*	-79177	-100008
106298	-101997	143915	251080*	146280
39746*	-173573	-88762	22441	34331
17562	-30420	118062*	-28368	34331
-93358	-12526	-62909	-2964*	-55228
-4622	-30420	14650	149463*	79111
-159910	166415*	-269733	-79177	-77618
17562	130627*	92209	-104582	34331
-48990	76945	118062*	-2964	11941
-4622	-12526	66356*	-28368	11941
-159910	-12526	40503*	-53773	-100008
-48990	41156*	14650	22441	-10449
-115542	130627*	118062	-53773	-100008
39746	76945	-88762	149463*	-10449
-115542	76945*	-88762	-79177	-100008
-137726	94839*	66356	-104582	-77618
-159910	130627*	-166321	-53773	-55228

*predominant style.

APPENDIX L

GROUP MEANS AND STANDARD DEVIATIONS OF THE COPING STYLES FOR PARENTS IN THE STUDY

Table L-1.--Group Means and Standard Deviations of the Coping Styles for Mothers and Fathers in the Study.

	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
Group Means					
Father	3.33	2.58	3.92	1.67	1.44
Mother	3.87	2.34	4.22	1.98	2.04
Total	3.60	2.46	4.07	1.82	1.74
Group Standard Deviations					
Father	.64	.69	.73	.57	.54
Mother	.54	.70	.51	.94	.80
Total	.64	.70	.64	.79	.74

APPENDIX M

**PEARSON PRODUCT MOMENT CORRELATIONS BETWEEN
BACKGROUND AND PERSONAL FACTORS AND THE
PARENTAL COPING STYLES OF MOTHERS
AND FATHERS**

Table M-1.--Pearson Product Moment Correlations Between Background and Personal Factors and the Parental Coping Styles of Mothers and Fathers.

	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
<u>Mothers</u>					
Age	.03	.00	.03	-.22	-.35*
Education	.14	.16	-.05	.25	.26
Income	-.14	.28	-.12	-.56***	-.55***
Head of Household's Occupation	.36*	-.23	.35*	.08	.30
<u>Fathers</u>					
Age	-.46**	.43**	.08	-.27	-.30
Education	.13	-.20	.26	.12	-.12
Income	.14	.04	-.09	-.01	.12
Head of Household's Occupation	.26	-.44*	.26	.11	.19

*=significant at the .05 level.
 **=significant at the .01 level.
 ***=significant at the .001 level.

APPENDIX N

**PEARSON PRODUCT MOMENT CORRELATIONS BETWEEN
ILLNESS-RELATED FACTORS AND THE PARENTAL
COPING STYLES OF MOTHERS AND FATHERS**

Table N-1.--Pearson Product Moment Correlations Between Illness-Related Factors and The Parental Coping Styles of Mothers and Fathers.

	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
<u>Mothers</u>					
History of a Chronic Illness	-.02	-.11	.14	-.05	-.14
History of Asthma as a Child	-.24	-.17	-.17	.18	.08
Sick as a Child Due to Asthma	.06	-.22	.09	.43	-.23
Family History of Asthma	-.11	-.01	-.27	.09	.25
<u>Fathers</u>					
History of a Chronic Illness	.05	.08	.27	.00	.00
History of Asthma as a Child	-.39*	.37*	-.19	-.33*	-.50**
Sick as a Child Due to Asthma	.36	-.43	-.34	-.38	-.38
Family History of Asthma	-.14	.12	-.27	-.10	-.13

*=significant at the .05 level.

**=significant at the .01 level.

APPENDIX O

**PEARSON PRODUCT MOMENT CORRELATIONS BETWEEN
SOCIAL AND ENVIRONMENTAL FACTORS AND THE
PARENTAL COPING STYLES OF MOTHERS
AND FATHERS**

Table O-1.--Pearson Product Moment Correlations Between Social and Environmental Factors and the Parental Coping Styles of Mothers and Fathers.

	Vigilant Focusing	Minimization	Tackling	Capitulating	Avoiding
<u>Mothers</u>					
Other Household Occupants	-.07	.09	.24	-.06	.06
Number of Children in Home	-.13	.15	.01	-.14	-.13
Clinic Settings Upsetting	-.17	.13	.20	-.14	-.36*
Social Support	.06	.22	-.02	.11	.14
Primary Care Taker of Child	-.00	-.13	-.08	.16	-.01
<u>Fathers</u>					
Other Household Occupants	-.03	.13	-.23	-.04	.04
Number of Children in Home	-.01	.03	-.05	.25	.01
Clinic Settings Upsetting	-.06	-.16	.12	.05	.11
Social Support	-.09	.10	.01	.09	.25
Primary Care Taker of Child	.07	-.23	.06	.02	.26

*=significant at the .05 level.

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