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THE RELATIONSHIP BETWEEN HUMOR AND NURTURANCE AND FAMILY COPING OF PARENTS WITH CHRONICALLY ILL CHILDREN

By

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ABSTRACT

THE RELATIONSHIP BETWEEN THE USE OF HUMOR AND NURTURANCE AND FAMILY COPING OF PARENTS WITH CHRONICALLY ILL CHILDREN

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Chronic illness is a major concern for health care providers. There are estimates that there are approximately 20 million children between the ages of birth and 18 that suffer from a chronic illness or disability in the United States (Heaman, 1995). The number of families trying to cope with the chronic illness of a child leads to an increased possibility that Advanced Practice Nurses will care for these families. It has been the purpose of this study to examine the relationship between the use of humor and nurturance and family coping of parents with chronically ill children within the framework of The Double ABCX model of family stress and adaptation (McCubbin and Patterson, 1983). The results of this study provide evidence that there is a relationship between the use of humor and nurturance and coping of parents of chronically ill children. Implications include the individual assessment of each family for their response to a potential crisis event and the need for a consistent and objective measurement of nurturance.

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CHAPTER I

THE PROBLEM

Introduction

Chronic illness is a major concern for health care providers. Despite the fact that chronic illness affects proportionally more elderly than the rest of the population, it also remains a serious problem for children and their families (Clawson, 1996). There are estimates that approximately 20 million children from birth to age 18 are suffering with a chronic illness or disability in the United States (Heaman, 1995). The advances made in control of infectious diseases, advances in technology, and the increasing life expectancy for a number of diagnoses lead to an increased possibility that Advanced Practice Nurses will care for individuals and families who are trying to cope with a child's chronic illness.

Traditionally the focus has been on the individual with the chronic illness and how that individual copes with the chronic illness. Over the last decade or so, it has been documented that families are affected by and affect the chronic illness of a family member (Shapiro, 1983). With few exceptions, most families with a member who is chronically ill are care givers for their chronically ill family member (Gillis, Rose, Hallburg, and Martinson, 1989). Furthermore there have been documented in the literature several assumptions regarding chronic illness and families, including:

 If any family member has a chronic illness it requires the rest of the family to adapt (Knafl & Deatrick, 1990).

- 2. The experience of chronic illness is multidimensional with similar aspects regardless of differing disease processes (Canam, 1993).
- Chronic illness is a stressful event or burden because it places a strain on the families financial, physical, and emotional resources (Reed, 1990 and Williams, Lorenzo, & Borja, 1993).
- Families can adapt and grow in response to the chronic illness of a family member (Canam, 1993).

It is generally assumed that people with a sense of humor and those people who use humor in their daily lives are more capable in dealing with the demands and stresses placed on them. Another assumption that is often made is that if your background is a nurturing one you are better equipped to cope with the stresses in life. Nowhere is this more apparent than in the rationalization of undesirable behavior. Many times people have been overheard to say "It's no wonder they turned out the way they did, just look at how they were brought up." These assumptions however have not been tested, this is particularly true in regards to the coping of parents with a chronically ill child. It has been well documented that there are a variety of factors that influence a families ability to cope with chronic illness. In this study the focus is on the relationship between the use of humor and nurturance and family coping strategies of parents with a chronically ill child.

Statement of the problem

The current literature is replete with examples of how a childhood chronic illness affects family functioning and the family's ability to cope. There are descriptions of functional and dysfunctional coping (McCubbin & Patterson, 1983). The literature includes descriptions of how chronic illness disrupts family function and structure, including family role and responsibility distribution (Hauenstein, 1990). There are descriptions of how extrafamilial support indicate higher levels of family coping (Hamlett, Pellegrini, and Katz, 1992). There is however, a lack of literature that defines specific strategies available to health professionals, Advanced Practice Nurses (APN's) in particular, to assist families during this stressful time. Specific family typologies or individual behaviors associated with family coping of parents with a chronically ill child have not been examined.

<u>Purpose</u>

The Advanced Practice Nurse, armed with the appropriate strategies could be in a position to assist and guide families through the challenge of chronic childhood illness. It is therefore the purpose of this study to identify whether the use of specific behaviors can effect the family coping of parents with chronically ill children. Specifically, the relationship the use of humor and nurturance by parents of chronically ill children and parental coping strategies of parents will be examined.

Research Ouestions

In this secondary study, the following question will be addressed; "Is there a relationship between the use of humor and nurturance and family coping of parents with a chronically ill child?" In addition the following second question will be addressed; "Is there a difference between families with a chronically ill child and those families with healthy children in their frequency of use of humor and nurturance?"

Definition of Concepts

Humor

Humor is a subjective, cognitive, and emotional response that results in the ability to see the amusing or lighter side of things (Harter, 1986). The use of humor is defined as an intellectual process that results from the synthesis of the cognitive, subjective, and emotional input that is then transformed into a behavioral response, such as a joke, a laugh, or a conscious thought of amusement.

Nurturance

Nurturance is the provision of a warm, loving, caring, supportive, and/or devoted atmosphere by one person that promotes the growth, development, and problem solving capabilities of individual family members and/or the family unit as a whole (Harter, 1986).

Coping

Coping will be defined as both the behavioral responses of individual family members as well as the responses of the family unit in an attempt to manage a difficult or problematic situation. Coping also includes the family's perception of the situation.

Therefore coping also is the family's ability to acquire and use resources needed for the family's adaptation (McCubbin and Patterson, 1983).

Chronic Illness

Chronic illness is a diagnosis that persists for at least six months, having occurred at least one year ago, is not necessarily terminal and does not include developmental disabilities such as Down's Syndrome or conditions of mental illness such as bipolar disorder. In this study the chronic illnesses included asthma, cystic fibrosis, diabetes, and congenital cardiac disorders. In using four different diagnostic categories of chronic illness it is assumed that there are commonalties across categories of chronic illness irrespective of diagnostic labeling (Stein and Jessop, 1989). That having a chronic illness is more of an indicator of the adaptation needs than the specific diagnosis.

Health

Health is defined as holistic in nature and composed of differing dimensions, including the biological, psychological, social, and spiritual domains. The absence of chronic disease or developmental disability is also conceptualized to be a condition of health for the purposes of this study.

CHAPTER II

CONCEPTUAL FRAMEWORK

Introduction

In this study the conceptual framework was based on The Double ABCX model of family stress and adaptation by H. I. McCubbin and J. M. Patterson (1983). The Double ABCX model describes how families cope with a perceived stressful event over time (Mays, 1988). It is based on an earlier theory developed by Hill that attempted to explain why families reacted differently to the same types of events (McCubbin & Patterson, 1983). The Double ABCX model expands on Hill's earlier theory (the original ABCX theory) that focused on pre-crisis variables and how families cope with the initial stressor. The Double ABCX theory incorporates the original theory of Hill and elaborates on it in an attempt to explain how families cope with and recover from a crisis over time (McCubbin & Patterson, 1983). The Double ABCX theory advances the assumption that the adjustment of a family to any particular stressor is the result of the interaction of both pre-crisis and post-crisis variables (Mays, 1988).

The Double ABCX Model

McCubbin and Patterson (1983) advance the Double ABCX model as a way of explaining the great variability among families in response to the stress of a chronic illness in a family member. Hill (1958) proposed in the original ABCX model that the degree to which families are susceptible to crisis is dependent on the interaction of the stressor event

(a factor) with the existing resources (b factor) and with the families perception of the stressor event (c factor). In families with a child with a chronic illness this can be demonstrated as the 'a' factor being the initial diagnosis of chronic illness. The 'b' factor are the existing family resources, for example extended family members near by to lend assistance, or a strong mutually supportive marriage so that one parent isn't feeling the sole burden for the care of a chronically ill child. The 'c' factor or family perception of the diagnosis of a chronic illness could be the feeling that this chronic illness was God's will or that it is a challenge the family will face.

A crisis develops when the family is only able to define the diagnosis of chronic illness as a catastrophe, whether it be because they lack sufficient resources or are unable to see beyond the stressor event. McCubbin and Patterson (1983) propose that families develop some sort of adaptation to crisis over a period of time. The Double ABCX model states that coping is central to the families ability to adapt, and furthermore that coping is the outcome of the pile-up of demands on the family and is a result of the interaction between the families resources, perceptions and behavioral responses (McCubbin and Patterson, 1983) (see figure 1).

The post-crisis variables were developed by McCubbin and Patterson to explain differences in family adaptation over time. When a crisis occurs the family moves from the adjustment phase to the adaptation phase. In the adaptation phase the level of family coping and adaptation results from the (a) pile-up of demands, (b) the family's resources and strengths, and (c) the family's perception of the crisis. The 'aA' factor which refers to the family's demands or pile-up of stressors. The 'bB' factor refers to the family's capabilities for meeting the demands that have emerged as a result of the stressor event.

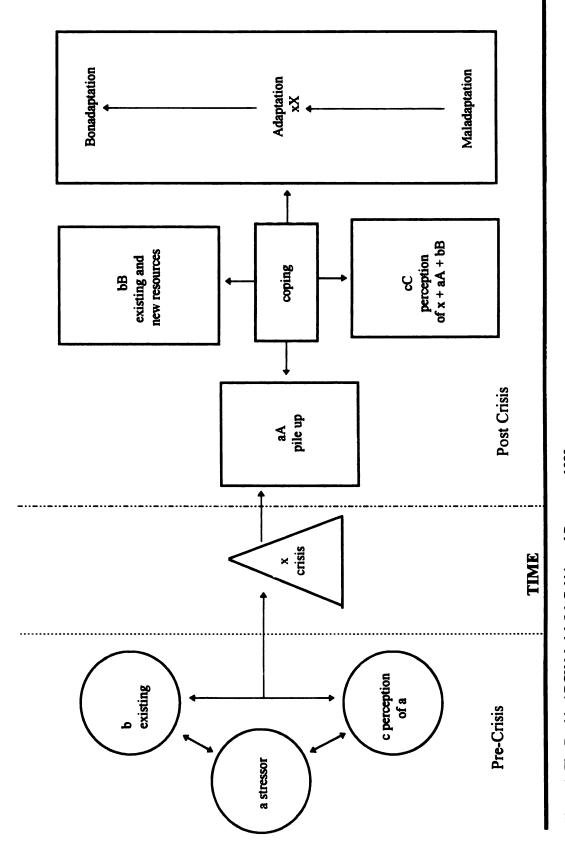


Figure 1. The Double ABCX Model (McCubbin and Patterson, 1983.

The 'cC' factor is the family's definition and meaning of the situation resulting from the changes that have occurred as a result of the situation.

The Pile-up (aA factor)

The Double ABCX model suggests that families rarely are dealing with a single stressor. Instead families with a chronically ill child are dealing with pile-up of demands. McCubbin and Patterson (1983) describe five types of stressors that add to pile-up: (a) normative transitions, (b) prior strains, (c) the initial stressor and its hardships, (d) intrafamily ambiguity, and (e) consequences of the families ability to cope.

Normative transitions. Even though families are faced with the stressor of having a child with a chronic illness they are also faced with transitions that have the potential to add stress to the family system. For example the normal growth and development of the children in the family (i.e.) children entering adolescence or a new school. The growth and development of the adult members for example mother returning to work can be classified as a normative transition. There may be changes in the extended family for example death of grandparents. Or there may be changes in the family's life cycle for example grown children leaving home. These stressors, although normal in the lives of families occur independently and possibly at the same time as the initial stressor and place additional stress on the family since they also require adjustment and adaptation.

Prior strains. Contributing to pile-up are those unresolved issues that families carry with them. These issues are now exacerbated as families become aware of them and demand their attention. Prior strains may be those unresolved issues from previous hardships or from an ongoing role strain (McCubbin and Patterson, 1983). A prior strain might be a disagreement between a couple on specific child rearing practices, discipline

issues, or how best to handle financial resources. These issues now become more problematic as the family now has to deal with the chronic illness of a child as well as the previously unresolved issues.

Initial Stressor and its Hardships. Specific hardships which increase and intensify the difficulty families face are those factors associated with the occurrence of the stressor event. For example one parent having to give up a job in order to care for the chronically ill child.

Intrafamily ambiguity. Since a stressor such as a diagnosis of chronic illness produces a certain amount of uncertainty about the future ambiguity results. For example parents may get inconsistent medical advice, or even uncertainty on the prognosis of the child with the possibility of a shortened life span.

Consequences of Family Efforts to Cope. This source of pile-up results from behaviors the family uses to attempt to cope with the initial stressor. For example a father of a chronically ill child may get a second job in an effort to cope with the added expenses a chronic medical condition requires.

Family Adaptive resources (bB factor)

The family's ability for meeting the demands placed on it from the stressor event evolve during the adaptation phase. McCubbin and Patterson (1983) describe three types of resources affecting a family's ability to adapt, (a) family member's personal resources, (b) the family systems internal resources, and (c) social support. When family member's personal resources are sufficient, they are less likely to view a stressor as problematic. These resources include; economic well being, adequate cognitive abilities to facilitate problem solving and stress perception, physical and emotional well being, and finally

personality characteristics or psychological resources (McCubbin and Patterson, 1983). Family systems resources identified by McCubbin and Patterson that facilitate adaptation are the degree of family cohesion and adaptability inherent in a family. The hypothesis is that families with moderate levels of each cohesion and adaptability are most likely to be able to make a successful adaptation to a crisis. The third type of family resource that affects the family's ability to adapt is the social support they receive or are able to develop. This type of resource can be in the form of support groups or from other families in similar situations. Social support can also be in the form of assistance from friends, neighbors or medical personal. Adequate resources help enable a family to manage the many demands placed on a family with a chronically ill child.

Family Definition and Meaning (cC factor)

When faced with a crisis and a demand for changes imposed by the stressor event families are faced with a situation that requires them to redefine their particular situation. This effort to give the crisis a new meaning serves to clarify issues and make them more manageable. It also decreases the degree of emotional burden associated with the stressor event and helps facilitate the family to continue with its fundamental function of promoting the growth and development of the members (McCubbin and Patterson, 1983). Coping, in the Double ABCX model, includes both the behavioral responses of family members, as well as the responses of the family unit in an attempt to manage the situation, in addition to the family's perception of the crisis. Therefore, coping is the family's ability to acquire and use the resources needed for family adaptation (McCubbin and Patterson, 1983).

Family Adaptation (xX factor)

The state of a family's adaptation is the result of its interaction between the resources available, the perception of the crisis, and coping processes. Adaptation is viewed on a continuum from poor to good. Those families who are at risk for poor adaptation (maladaptaion) are those families who have a large number of stressors in a short period of time and/or those families whose resources are overburdened or delinquent. Adaptation occurs at three levels: individual to family, individual to community, and family unit to community. When there is only minimal discrepancy or a balance between the families demands and capabilities good adaptation (bonadaptation) is said to have occurred.

The Advanced Practice Nurse can use the Double ABCX model with chronically ill children and their families as a way of analyzing family efforts to adapt to many stressors or crises over time. Not only can the Advanced Practice Nurse observe how families use their strengths, resources, and perceptions as a process aimed at achieving adaptation, but through their observations notice where delinquencies exist and thus assist and guide families towards strengthening their resources or reframing their perceptions, so that they may achieve a balance in their lives. This study is using an adapted version of the Double ABCX model, conceptualized by Spence, Barnes, and Peek (1989), (see figure 2). In particular this study is focusing on the dimensions of resources and coping (see figure 3) as outlined in the adapted version of the Double ABCX model. In this study the use of humor and the parents perception of being nurturing are thought to act as both a family resource (bB factor) and as an ameliorating factor in the families perception of the event of chronic illness (cC factor). The relevance of humor and nurturance as important

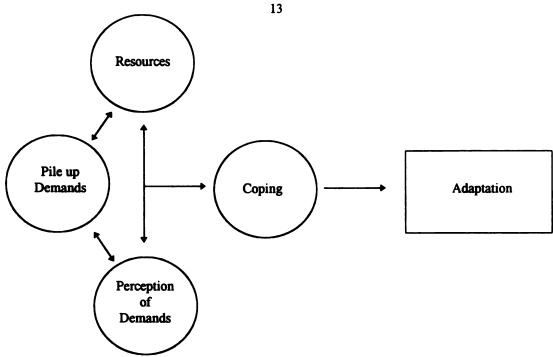


Figure 2. Adaptation of the Double ABCX Model by Spence, Barnes, and Peek (1989).

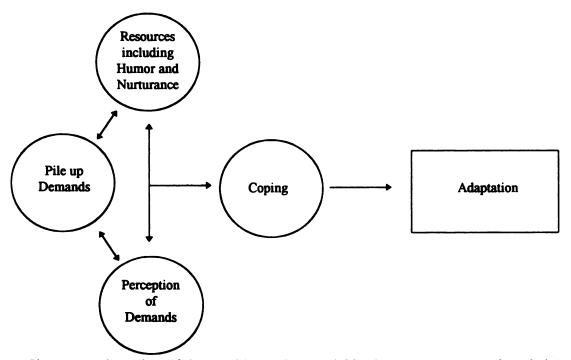


Figure 3. Adaptation of the Double ABCX Model by Spence, Barnes, and Peek (1989) including the variables Humor and Nurturance.

concepts is in the contribution to the family's pool of resources. It makes sense intuitively that if a family has a greater set of resources to draw from in time of stress the less likely that family will perceive the stress as a crisis. Also with a larger pool of resources to utilize the family will have better coping abilities and be better able to achieve bonadaptation.

CHAPTER III

REVIEW OF THE LITERATURE

Introduction

In this chapter, literature relevant to families with a chronically ill child and coping abilities will be reviewed. Literature on the use of humor and its possible therapeutic value will also be reviewed. The use of nurturance and the effects it has on families will also be reviewed. Much of the literature on humor and nurturance has been based on individual anecdotal accounts and not related to family coping. The pros and cons of using humor and nurturance will be reviewed in the literature. Some professional use of humor by health care providers has been incorporated in the literature review because there is so little empirical literature on the use of humor within families and the effects on coping. The family coping literature reviewed has much of its focus on the individual family's or family member's response to a chronic illness. Specific strategies useful for health care providers in promoting optimal family coping will be identified and reviewed where available.

Review of Literature

Humor

Throughout time humor and laughter have been part of daily life. However, the use of humor as a valid tool to be used in nursing or used by families or as subject of study has only recently become acceptable. Why has the use of humor been so lacking in the nursing literature, when anecdotal information on the therapeutic use of humor can be

found as far back as biblical times? Proverbs 17:22 states: "A joyful heart is the health of the body, but a depressed spirit dries up the bones." More recently Freud (1927) talked about how humor could change pain to pleasure and used his own personal account of cancer pain and the use of humor to overcome the discomfort. The same type of anecdotal account of personal triumph over pain with humor has been related by Norman Cousins (1979) after his encounter with a painful collagen disorder. The idea that humor and laughter could cause the release of endorphins and thus decrease perceived pain by an individual followed such anecdotal evidence. Perhaps the main reason humor has not been studied more extensively or received much attention by the profession in research as a tool for families, lies in the historic roots of the nursing profession. Nursing has its' origins in the religious and military orders. It was perceived that nursing was a very serious business and that laughing, joking, or expressing a sense of humor was unprofessional and unbecoming (Rosenberg, 1989; Ruxton, 1988).

Recent literature suggests four areas where humor can be of therapeutic value; 1) as a method of improving interpersonal communication such as learning and rapport building, 2) as an intervention to improve psychological function, 3) as an intervention to improve physiological function, and 4) as a coping mechanism (Astedt-Luikkonen, 1994, Bellert, 1989, Davidhizer & Schearer, 1992, Hulse, 1994; Ruxton, 1988).

Humor can be used as a method of improving communication and establishing a rapport. Basically, humor is a familiar pattern of communication for most people that helps to diminish discomfort and shows people that you are vulnerable while serving to strengthen a relationship (Groves, 1991). Humor also improves communication by facilitating learning, this is accomplished by decreasing anxiety and providing for a non-

threatening environment (Bellert, 1989; Rosenberg, 1989). Problem solving is facilitated because humor can put people at ease, promoting expression and the exchange of ideas (Davidhizar & Bowen, 1992). Ziv (1988) studied the role humor has in married life and found that greater than 92% of married couples used humor with their partner and that most couples felt humor added a degree of cohesiveness to their relationship. By sharing a "private joke" they could communicate to each other even with others around. A variation of the humor as communication builder is play therapy. Play therapy encourages children to face difficult situations and allows them to express themselves in a non-threatening manner (Erdman, 1991).

Humor can improve physiologic function as has been hypothesized in the form of anecdotal evidence from Norman Cousins (1979) and Freud (1927). Cousins hypothesized that laughter has an anesthetic effect by perhaps the release of endorphins. Others (Fry, 1988) suggest the beneficial aspects of laughter are from an initial raise in blood pressure and heart rate during the active laughing phase that is followed by an episode of relaxation when heart rate and blood pressure fall to below baseline levels. Other researchers (Dilon, Minchoff, & Baker, 1985) suggest that the beneficial effects of laughter are from the enhancement of the immune system. Elevated levels of IgA were related to a positive emotional state with increased levels of IgA were found after viewing a humorous film (Dillon, Minchoff, & Baker, 1985). Indeed psychoneuroimmunology, an entire field of study is devoted to the correlation between mind and body.

Psychologically, we have all experienced the uplifting effects of humor in our daily lives. Humor has been described as a method to decrease stress, tension, and anxiety. It allows for expression of emotions that otherwise may have been socially unacceptable or

too frightening to face (Pasquali, 1990). The psychological benefits from humor are demonstrated every day in hospitals across the country with the use of humor carts and clowns to lift the spirits of patients.

As a coping mechanism humor can be used to diffuse anxiety or anger, assist people in coping with change, and allow people a chance to escape from realities that may otherwise be too overpowering to face such as a terminal illness or death. A joke may allow a person a temporary reprieve from an otherwise frightening or unpleasant experience and avoid being overtaken for that moment by a situation in which he is powerless (Davidhizar & Bowen, 1992). There are only a few empirical studies that have identified humor specifically as a measurable and effective coping mechanism. Buelow (1991) identified humor as a coping mechanism for multiple sclerosis patients, and found that there was a negative correlation between positive coping behaviors (including humor) and depression. In their work with adolescents with diabetes Grey, Cameron, and Thurber (1991) found a positive correlation between the use of humor and adaptation. Martin and Lefcourt (1983) provided evidence in three studies that a sense of humor does indeed moderate the effect of negative life events and mood disturbances. Ziv (1987) demonstrated that the use of humor with high school students decreased their level of frustration after failing to solve test questions.

The use of humor does have its limitations. The use of humor would be inappropriate if it causes hurt feelings or increased anxiety. If humor is used inappropriately it may be a barrier to the development of a therapeutic nurse client relationship. The person who uses humor needs to feel that the use of humor has helped them in the past or at least approve of its' use and feel it is worthwhile to try. Finally, the

use of humor must not be sarcastic, but needs to show respect for the client as an individual, the need is to laugh with a person not at them.

It is true that the use of humor as a therapeutic tool has its limits. The proposed benefits of using humor to improve communication, enhance physiological and psychological well being, and increase coping are all within the scope and interest of nursing practice. It is the promotion of health and feelings of well being that is one of main goals of the Advanced Practice Nurse. The potential benefits of using humor within the families of chronically ill children could include building upon existing family resources so that the stress of chronic illness might be given a short reprieve, and the family could refocus their energies on the tasks at hand. Also, a family with a healthy sense of humor may be more likely to view a situation, such as the chronic illness of a child, with an optimistic or upbeat attitude.

Nurturance

Nurturance has generally been thought of as a dimension of good parenting. The words warmth, support, love, approval, attention, and concern have all been used to define parental nurturing (Buri, 1989). Nurturance is also a concept that is not thought of as a condition that stands alone, but as a condition that is closely associated with other psychological measures. For instance, Evans, Thompson, Browne, Barr, and Barton (1993) found that nurturance, endurance, affiliation, and autonomy were all highly correlated with feelings of psychological well being in adults who were in remission from acute leukemia.

There are very few empirical studies that report on the direct relationship of nurturance and coping. McIntre and Dusek (1995) reported on parenting practices and

styles of coping, and found that adolescents who had parents they perceived as nurturing used a greater amount of social support and problem focused coping practices than those who had other parenting styles. Indeed the theme that runs through most research on parental nurturance is that those young adults who perceived their parents to be nurturing as they were growing up, believe that it promotes sound mental health, psycho-social development and self-esteem (Brost & Johnson, 1995, Hopkins & Klien, 1993, and McIntre & Dusek, 1995).

Lempers, Clark-Lempers, & Simons (1989) demonstrated via path analysis that the stressor of economic hardship led to a reduction in parental nurturance and subsequent increase in distress among adolescents. However, this author was unable to find literature that either supported or refuted the notion that a nurturing family would enhance family coping. Although common sense tells us that if nurturing parents foster mental health in their children it would seem to follow that a nurturing family would also foster sound coping practices for an entire family.

Family Coping

Nursing since the time of Nightingale has recognized the need to include the family as recipients of care (Whall, 1986). The nursing literature continues to state that an individuals' health can be measured to some degree by the health and adaptation of the family (Anderson & Tomlinson, 1992 and Gillis, 1991). However, the literature on family coping has been limited.

McCubbin (1979) suggests that for a family to have successful adaptation to stress, the family must develop two sets of resources. The first set of resources the family must develop are internal resources. This includes integration and adaptability so that the family

can withstand the social and psychological stresses that it may be exposed to (McCubbin, 1979). McCubbin and Patterson (1983) further refine the previously mentioned two sets of resources in the Double ABCX model, which suggests that when a crisis occurs (such as the chronic illness of a child) the family moves through the adjustment phase to the adaptation phase. If this is done successfully the family has adapted, gains a new balance to the family unit, the family strength has improved, and the family is better equipped to handle future stresses (McCubbin and Patterson, 1983).

Gallo (1991) suggests that the family's ability to cope with a chronic childhood illness is based on a number of factors. Specifically identified as assets to coping are the ability to make changes in the family system, roles, routines, and interactions among family members. These concepts have been reinforced by Gibson (1988) in her work in family coping with children with cystic fibrosis. The theory development work done on family adaptation in families experiencing new onset epilepsy of a child (Austin, 1996) also point to significant family adjustments as important factors in coping.

Researchers are in general agreement on how the impact of a chronic illness of a child places the family under additional stress and acknowledge that a child's chronic illness increases a families vulnerability to the stresses of life (Austin, 1996, Clawson, 1996, Gallo, 1991, Hamlett, Pellegrini, & Katz, 1992; Heaman, 1995). However this does not necessarily mean there will be a disintegration of the family unit. How a family copes with a chronic illness is individual and dependent on the family's psychological make-up, the various ways of normal family interaction, and social factors of the family (Reed, 1991).

Summary

The chronic illness of a child affects the entire family. The family attempting to cope with a chronic illness is faced with many challenges. The studies reviewed suggest that successful adaptation is dependent on the demands on the family's, the family's strengths and resources, and the family's perception of the crisis (McCubbin and Patterson, 1983).

It has been shown that humor can be used effectively as a coping mechanism and as a tool to promote well being. Nurturance has been demonstrated to be effective in increasing sound mental health. The holistic nature of nursing makes identifying strategies that can be used by families to increase family coping a valid concern. Family coping, sound mental health, and the promotion of positive feelings of well being have long been in the interest of nursing. It would benefit both families and the practice of nursing if additional strategies can be identified to assist families dealing with the demands of a chronically ill child. The lack of empirical evidence to support the hypotheses that the use of humor and nurturance will be reflected in family coping is the rationale behind this study. Therefore it is the purpose of this study to determine if there is a relationship between the use of humor and nurturance and family coping by parents with a chronically ill child.

CHAPTER IV

METHODS

Design

This non-experimental descriptive study is a secondary analysis of data collected for a larger primary study entitled, "Family Adaptation to Chronic Childhood Illness" that was conducted by Linda Spence, Carla Barnes, and Patty Peek from the College of Nursing at Michigan State University. The primary research was funded by the American Lung Association of Michigan and by the American Heart Association of Michigan. The focus of the primary study was to examine the effects of having a chronically ill child on the entire family functioning. The comparison ex post facto design study included all members of the family with a chronically ill child. Numerous concepts and instruments were used, including Harter's Adult Self-Perception Profile, (1986) and the Family Crisis Oriented Personal Evaluation Scale (F-COPES) by McCubbin, Olsen, & Larsen, (1981).

Unlike the primary study, this secondary study uses the Adult Self-Perception

Profile (Harter, 1986) and F-COPES (McCubbin, et. al.,1981) and focuses solely on the data collected from the parents of both chronically ill children and healthy comparison children. The focus of this secondary analysis was on the sense of humor and nurturance subscales on Harter's Adult Self-Perception Profile (1986) and their relation to coping on McCubbin's F-COPES (1981). The previously collected data on the two groups of parents in the primary study was utilized to examine the relationship between the use of

humor and nurturance and the family coping of parents with chronically ill children. The data was also examined to see if there is a difference between families with chronically ill children and those comparison families with healthy children in their use of humor and nurturance.

Hypotheses

The following hypotheses were tested in this study:

- 1. There is a significant difference in the use of humor between parents of chronically ill children and parents of healthy children on the humor sub-scale score. With the chronically ill parents scoring significantly higher than the comparison parents on the humor scores.
- 2. There is a significant difference in the nurturance of parents with chronically ill children and parents of healthy children on the nurturance sub-scale score. With the chronically ill parents scoring significantly higher nurturance scores.
- 3. There is no significant difference in the coping of parents of chronically ill children and parents of healthy children on the mean F-COPES (McCubbin, 1987) scores.
- 4. There is a positive correlation between the humor sub-scale score and the total F-COPES (McCubbin, 1987) scores.
- 5. There is a positive correlation between the nurturance sub-scale score and the total F-COPES (McCubbin, 1987) scores.

Operational definitions

Family Coping

Family coping in this study is defined as the use of problem solving and behavioral strategies used by families in times of difficulty as defined in F-COPES (McCubbin,

Olsen, and Larsen, 1981). F-COPES (McCubbin, 1981) utilizes the coping dimensions in The Double ABCX model and integrates the factors of pile-up, family resources, and perception. In this study family coping was operationalized by utilizing the total score that includes the five subscales of the McCubbin, Olsen, Larsen Family Crisis Oriented Personal Evaluation Scales that are as follows:

- 1. Acquiring Social Support. The families ability to actively engage in acquiring support from friends, relatives, neighbors, and extended family. It is measured in items #1, 2, 5, 8, 10, 16, 20, 25, and 29.
- 2. Reframing. The families ability to redefine stressful events in order to make them more manageable. It is measured in items # 3, 7, 11, 13, 15, 19, 22, and 24.
- 3. Seeking Spiritual Support. The ability of the family to acquire spiritual support is measured in items # 14, 23, 27, and 30.
- 4. Mobilizing the Family to Acquire and Accept Help. The families ability to seek out community resources and accept help from others is measured in items # 4, 6, 9, and 21.
- 5. Passive Appraisal. The families ability to accept problematic issues minimizing reactivity is measured in items # 12, 17, 26, and 28.

<u>Humor</u>

Humor in this study is operationalized by the humor subscale in Harters' Adult Self-Perception Profile (1986). It is measured in items # 13, 26, 38, and 50.

Nurturance

Nurturance in this study is operationalized by the nurturance subscale in Harters' Adult Self-Perception Profile (1986). It is measured by items # 4, 16, 29, and 42.

Sample

The sample in the primary study consisted of 45 families. The 45 families were recruited for the primary study through the pediatric subspecialty clinics in the Department of Pediatrics and Human Development at Michigan State University. This convenience sample was limited to these clinics because of the desire to control any philosophical differences in the approach to the medical management of chronic childhood illness. The philosophical approach in these clinics encourages patient and family participation in the management of chronic illness which may not be true in all settings. It was felt this encouraged participation may have an effect on family coping and adaptation. Within the 45 total families there were 28 families with a chronically ill school age (8-12 years) child who had been diagnosed with a chronic illness for at least one year and 17 comparison families with healthy children. There were 8 families of children with asthma, 6 with congenital heart disease, 8 with cystic fibrosis, and 6 with insulin dependent diabetes mellitus. In the healthy comparison families the children had no known physical or developmental abnormalities. Due to the limited number of families in some of the diagnostic categories all families presenting to the clinics were asked to participate successively. The comparison families were recruited through university, neighborhood, and community agency announcement.

Family was defined in the primary study as the parent(s) (biological, adoptive, or step-parents), the target child, and siblings (biological, half, or step-siblings) eight years of

age or older, who were currently living in the same home. The primary study made an effort to control for the cognitive transitional period that occurs between the ages of 5-7 years because in the primary study the children participated in responding to the instruments. In this secondary analysis only the parents responses were analyzed. Four families were randomly selected from each of the four chronic illness categories for the purpose of matching. The comparison families were matched to one of the selected chronic illness families on: age, sex, birth order of the target child; number of parents in the home; approximate family size, and income. Birth order of the target child was matched on eldest, middle, or youngest. Family size was matched for 1-2 children, 3-5 children, or 6 or more children. Income was matched for under \$20,000, \$20,000-\$34,999, \$35,000-\$49,999, \$50,000-\$74,999, and over \$75,000. Thirteen of the comparison families were able to be matched to the randomly selected chronic illness families. The other four comparison families were matched to four non-randomly selected chronic illness families that were evenly distributed across the diagnostic categories. The final sample in the primary study consisted of 160 subjects. For the purpose of this secondary analysis only the 47 parents (28 mothers and 17 fathers) of the 28 target families and 28 parents (17 mothers and 11 fathers) of the 17 comparison families will be considered, for a total sample size of 75 parents.

Chi square analysis done by the authors of the primary study revealed that the mothers in the comparison families had significantly more education, were significantly more likely to work outside the home in graduate professional positions than the mothers of the chronic illness families. There were no other significant demographic differences between the chronically ill and healthy comparison families.

Limitations of using this secondary data analysis include such sampling design problems as the use of a convenience sampling where there may be a greater chance of sampling bias. The small sample size of only 47 target parents and 28 comparison parents could be a limitation due to the possibility of sampling error. The inability to match all 17 comparison families also could be a limitation of the study, however, the chi square analysis revealed only differences on the mothers education and position of employment. Another limitation of this research design is that it is non-experimental in nature and therefore any inference for cause and effect relationships would be difficult.

Data Collection

All procedures were the same for the chronically ill families and the comparison families. Families meeting the criteria received a letter explaining the study and inviting participation in the study. The letter contained a return postcard indicating a willingness to participate, the most convenient time for participation, and family makeup. Families who returned postcards received follow-up phone calls from the investigator to answer any questions and schedule a time for a home visit with the entire family. At the home visit the study was explained to the entire family, questions were answered, and informed consent was obtained. Sociodemographic and illness demographic (for families with chronically ill children) information were obtained from the parents by interview. The family was then asked to complete the appropriate instruments.

Of interest in this secondary analysis is the <u>Adult Self-Perception Profile</u> that contains 50 items and 12 subscales (Harter, 1986). The Self-Perception Profile (Harter, 1986) was administered to all adult subjects. The 50 item questionnaire consists of 12 subscales which are; Sociability, Job Competence, Nurturance, Athletic Abilities, Physical

Appearance, Adequate Provider, Morality, Household Management, Intimate
Relationships, Intelligence, Sense of Humor, and Global Self-Worth. Each of the 11
subscales contain four items, plus the global self-worth scale that contains six items.
Within each subscale half of the items are worded to reflect high competency or adequacy
and the other half are worded to reflect low competency or adequacy. The authors of the
instrument hypothesized that it would be unlikely that an individual would feel equally
competent in all subscales, therefore, the Adult Self-Perception Profile allows for the
examination of an individual's profile of perceived competence across different domains
(Harter, 1986). The Adult Self-Perception Profile (Harter, 1986) also allows for the
investigator to determine the relationship between the individual's competence in each
domain to the perceived importance a person attaches to success in each domain. In this
study the subscales of interest are the Sense of Humor and Nurturance scales.

The Family Crisis Oriented Personal Evaluation Scales (F-COPES) (McCubbin, Olsen, & Larsen, 1981) was used to measure coping. F-COPES (McCubbin et al., 1981) was created to identify problem solving and behavioral strategies used by families in difficult or problematic situations. The instrument has 30 coping behavior items that subjects rate on a five point scale from very untrue to very true on how well each statement describes their own family. The 30 items focus on two levels of family interaction; 1) ways a family handles difficulties within its members and 2) ways in which a family externally handles problems or demands that emerge outside its boundaries, but affect the family and its members. F-COPES (McCubbin et. al., 1981) has a total of five subscales which are; Acquiring Social Support, Reframing, Seeking Spiritual Support, Mobilizing the Family to Acquire and Accept Help, and Passive Appraisal. Each subscale

can be given a score, plus a total score for the entire instrument. For purposes of this study only the total score was used.

Reliability and Validity

The internal consistencies for this instrument were based on two samples. The first sample consisted of 141 parents, who ranged in age from 30-50, had a majority of intact families, were 95% Caucasian, upper middle class, and for the most part college educated. The second sample consisted of 215 mothers of children ages 3 and under who were equally divided into middle and lower class, 98% were Caucasian, 90% had completed high school, greater than 50% had attended college, and the mothers had an average of 14.67 years of education. The mothers were also divided into two groups of working mothers and homemakers. The internal consistency reliabilities for the Adult Self-Perception Profile (Harter, 1986) are based on Cronbach's Alpha. The internal consistency for the subscales are .87-.92 for Global self-Worth, .65-.75 for Job Competence, .75-.90 for Intelligence, .84-.91 for Athletic Abilities, .81-.87 for Physical Appearance, .63-.86 for Sense of Humor, .74-.82 for Sociability, .72-.88 for Intimate Relationships, .63-.88 for Morality, .67-.87 for Nurturance, .82-.90 for Household Management, and .83-.90 for Adequate Provider.

The two subscales of interest in this secondary analysis are the Sense of Humor subscale and the Nurturance subscale. The Sense of Humor subscale has higher internal consistencies for the homemakers (0.86) and part-time working women (0.82) than for either the full-time working women (.63) or full-time working men (0.63). Nurturance had the highest internal consistency for full-time working men (0.87) and the lowest reported internal consistency for part-time working women (0.67). Construct validity for

the Adult Self-Perception Profile (Harter, 1986) was established by factor analysis of the specific domain items. The loadings for the Sense of Humor subscale was .74 with a .04 cross loading to all other items. The Nurturance subscale had loadings of .69 with a .09 cross loading to all other items. The authors of the primary study selected the Adult Self-Perception Profile (Harter, 1986) for it's sound psychometric properties. Another factor in the selection of the Harter instrument was that there are different forms of the instrument developed for different age groups, such as pre-schoolers, school age children, college age adults, and adults in their mid-years.

Coping in this study will be evaluated using the Family Crisis Oriented Personal Evaluation Scales (F-COPES) (McCubbin, Olsen, & Larsen, 1981). The internal consistency for this scale was measured by using Cronbach's Alpha. The overall reliability for this instrument based on two samples was .86 and .87. Test-retest reliability over a four week period was .81. Cronbach's Alpha was based on the largest sample of N=2740 that was randomly split into two halves. The combined scales, based on Cronbach's Alpha for the five subscales emerged as .83 for Acquiring Social Support, .82 for Reframing, .80 for Seeking Spiritual Support, .71 for Mobilizing Family to Accept Help, and .63 for Passive Appraisal. Construct validity for F-COPES was established using factor analysis with factor loadings emerging with a range of .39-.85 on the eight factors established by the authors of the instrument. In this secondary analysis F-COPES (McCubbin et. al., 1981) will be looked at to measure the coping strategies of the parents of the chronically ill children as compared to the parents of the healthy children. Examination will utilize the total score and not the individual subscales.

Data Analysis

Descriptive statistics were completed for the sample demographic data on the parents of both the chronically ill children and healthy comparison parents. This data is displayed in table form (Tables 1-9). In order to show the relationship between the use of humor and nurturance and family coping, Pearson's r correlation coefficient was carried out on the variables of humor and family coping, and nurturance and family coping on the two groups of parents. In addition, analysis of variance (ANOVA) was utilized to determine the differences between the use of humor and nurturance by the parents of the chronically ill children and parents of the healthy comparison children. These data is reported in table form for ease of interpretation.

Protection of Human Subjects

The protection of human subjects is insured by several methods. First, the study proposal was presented to Michigan State University Committee on Research Involving Human Subjects (UCRIHS) for approval (IRB# 97-134). Secondly, the primary study (Family Adaptation to Childhood Chronic Illness) initially had obtained approval from the University Committee on Research Involving Human Subjects, IRB# 89-174. Finally, the researchers of the primary study had previously coded all information into numeric form and entered it onto computer disc so that the identities of the subjects were not known to the researcher carrying out this secondary data analysis.

CHAPTER V

RESULTS

The results reported in this section are the product of the self-reports of the 75 parents who participated in the original study. Included are tables showing the sociodemographic characteristics of the sample and the results of the hypothesis testing.

Socio-demographic Characteristics

The total sample of 75 parents consisted of two groups: 47 parents of chronically ill children and 28 parents of healthy comparison children. The results reported in Tables 1-9 show the socio-demographic data results. No significant differences were found between the groups of parents on the absolute number of children (F = 1.317, $p \le 0.257$). There was no significant differences between groups on the amount worked by mothers outside the home (F = 0.232, $p \le 0.6326$). The two groups also were not significantly different on the family income level (F = 0.0203, $p \le 0.8879$). There were however significant differences between the two groups of parents on education level of the mother (F-Ratio 16.29, $p \le 0.0002$) and father (F = 6.253, $p \le 0.0177$). Also a significant difference was found in the occupation of the mothers (F = 8.838, $p \le 0.0049$). The amount worked for the fathers and occupation of the fathers was not calculated secondary to the lack of self-reported data.

Hypothesis Results

Pearson's r correlation coefficient was calculated on the variables of humor, nurturance, and family coping on the two groups of parents to determine if there was a positive correlation between family coping and humor and nurturance. Additionally, Table

1. Absolute number of children in the family.

<u>Value</u>	Frequency CI Families	Frequency Healthy	<u>Total</u> <u>Frequency</u>	Percent
1	5	4	9	19.6
2	13	9	22	47.8
3	3	4	7	15.2
4	3	1	4	8.7
5	2	0	2	4.3
6	1	0	1	2.2
missing			1	2.2

Table 2. Amount worked by the mother.

<u>Value</u>	Frequency	Frequency	Frequency	Percent
	CI famlies	Healthy	<u>Total</u>	
0	9	2	11	23.9
No work outside the home				
1	8	12	20	43.5
Full time				
2	9	4	13	28.3
Part time				
missing	1	0	1	2.2

Table 3. Education of the mother

Value	Frequency CI	Frequency Healthy	Frequency Total	Percent
1	1	0	1	2.36
Less than high school				
2	6	0	6	14
High school	-			
3	5	2	7	16.3
Business. Trade or JC				
		2	11	25.6
4 Some college	9	2	11	25.6
5	4	9	13	30.2
College				
6	1	4	5	11.6
Post Graduate				

Table 4. ANOVA of education level of the mother

	Degrees of	Sum of	Mean	F	F
Source	Freedom	Squares	Squares	<u>Ratio</u>	Probability
Between Groups	1	20.7505	20.7505	16.290	0.0002**
Within Groups	41	52.2262	1.2738		
Total	42	72.9767			

 $p \le 0.05$ ** $p \le 0.01$

Table 5. Occupation of the mother.

Value	Frequency CI famlies	Frequency Healthy	Frequency Total	Percent
1	9	2	11	23.9
No work outside				
home				
2	2	0	2	4.3
Unskilled labor				
3	7	4	11	23.9
Trade, technical				
or clerical				
4	2	1	3	6.5
Sales				
5	1	0	1	2.2
Management				
6	5	11	16	34.8
Graduate,				
Professional				
missing	1	0	1	2.2

Table 6. ANOVA of occupation of the mother

	Degrees of	Sum of	Mean	F	F
Source	Freedom	<u>Squares</u>	Squares	Ratio	Probability
Between Groups	1	30.9248	30.9248	8.8380	0.0049**
Within Groups	42	146.9615	3.4991		
Total	43	177.8864			

 $p \le 0.05$ $p \le 0.01$

Table 7. Education of the father

<u>Value</u>	Frequency CI families	Frequency Healthy	Frequency Total	Percent
1	1	0	1	2.2
Less than high				
school				
2	5	0	5	10.9
High school				
3	4	2	6	13.0
Business. Trade				
or JC				
4	5	1	6	13.0
Some college				
5	3	4	7	15.2
College				
6	4	5	9	19.6
Post Graduate				
missing	5	6	11	23.9

Table 8. ANOVA of education level of the father.

	Degrees of	Sum of	Mean	F	F
Source	Freedom	Squares	Squares	<u>Ratio</u>	Probability
Between Groups	1	12.5775	12.5775	6.2532	0.0177*
Within Groups	32	64.3636	2.0114		
Total	33	76.9412			

^{*}p ≤ 0.05

Table 9. Income of the family.

Value	Frequency CI Families	Frequency Healthy	Frequency Total	Percent
1	5	0	5	12.2
<\$20,000				
2	5	4	9	22.0
\$20,000-34,999				
3	2	3	5	12.2
\$35,000-49,999				
4	3	0	3	7.3
\$50,000-74,999				
5	10	9	19	46.4
>\$75,000				

oneway ANOVA was conducted to determine if there were differences in the use of humor and nurturance in the parents of chronically ill children and those of the healthy comparison children. The ANOVA was done to test hypotheses 1-3, and the correlation coefficient calculated to test hypotheses 4 and 5. Significance, for the purpose of this study was established to be $p \le 0.05$. The results of the ANOVA and the correlation coefficients are discussed in detail below and are summarized in Tables 10-17. Each hypothesis is discussed separately.

Hypothesis 1: There will be a significant difference in the use of humor in parents of the chronically ill children and the healthy comparison children. This hypothesis was rejected. The parents of the chronically ill children scored lower (M = 9.98, S = 1.22) than the comparison parents (S = 1.25) on the humor domain. However the ANOVA revealed that the difference between these scores was not significant (S = 0.554, S = 0.05).

Table 10. ANOVA of total humor between chronically ill and comparison families.

	Degrees of	Sum of	Mean	F	F
Source	Freedom	Squares	Squares	Ratio	Probability
Between Groups	1	1.2913	1.2913	0.5537	0.4592
Within Groups	73	170.2287	2.3319		
Total	74	171.5200			

Hypothesis 2: There will be a significant difference in the nurturance of parents with chronically ill children and healthy children on the nurturance sub-scale score. This hypothesis was rejected. The parents of the chronically ill children scored lower (M = 9.53, sd = 1.57) than the comparison parents (M = 9.86, sd = 0.848) on the nurturance domain. The ANOVA revealed that this difference was insignificant (F = 1.02, $p \ge 0.05$).

Table 11. ANOVA of total nurturance between chronically ill and comparison families.

	Degrees of	Sum of	Mean	F	F
Source	Freedom	Squares	Squares	<u>Ratio</u>	Probability
Between Groups	1	1.8560	1.8560	1.0177	0.3164
Within Groups	73	133.1307	1.8237		
Total	74	134.9867			

Hypothesis 3: There will be no significant difference in the coping of parents with chronically ill children and parents of healthy children on the mean F-COPES (McCubbin, 1987) scores. This hypothesis was partially supported. The parents of the chronically ill children scored higher (M = 107.3, sd = 13.7) on the mean F-COPES (McCubbin, 1987) score than the parents of healthy children (M = 101.3, sd = 15.2). The ANOVA revealed no significant difference at a .95 C.I. (F = 3.06, $p \ge 0.05$), however at a .90 C.I. ($p \le 0.10$)

the parents of the chronically ill children scored significantly higher than the parents of healthy children on the mean F-COPES (McCubbin, 1987) score.

Table 12. ANOVA of total coping between chronically ill and comparison families

	Degrees of	Sum of	Mean	F	F
Source	Freedom	Squares	Squares	Ratio	Probability
Between Groups	1	628.1649	628.1649	3.0622	0.0843
Within Groups	73	14974.9818	205.1367		
Total	74	15603.1467			

Table 13. Comparison of Mean ± Standard Deviation for variables of: Coping, Nurturance, and Humor between parents of chronically ill and healthy families.

	Chronically III Mean \pm S.D.	Healthy <u>Mean ± S.D.</u>
Coping	107.34 ± 13.75	101.36 ± 15.25
Nurturance	9.53 ± 1.57	9.86 ± 0.85
Humor	9.98 ± 1.22	10.25 ± 1.94

Hypothesis 4: There will be a positive correlation between the humor subscale score and the total F-COPES (McCubbin, 1987) scores. This hypothesis was supported. Pearson's r was calculated to be 0.24 on total coping and the humor subscale, showing a positive correlation between the variables. This hypothesis was further supported when the total coping score was subdivided into high, medium, and low total coping scores. High coping was calculated to be greater than one standard deviation above the mean. Medium

coping was calculated to be within one standard deviation above or below the mean. Low coping was calculated to be more than one standard deviation below the mean. Among the parents with high total coping score the correlation between humor and coping was r = 0.5564 (see Table 17).

Hypothesis 5. There will be a positive correlation between the nurturance subscale score and the total F-COPES (McCubbin, 1987) scores. This hypothesis was rejected initially. Pearson's r was calculated to be not significant at -0.16 on the total coping and nurturance subscale score, showing no positive correlation between the variables. However, as with humor, when total coping was subdivided into high, medium, and low total coping scores a positive correlation was found between nurturance and coping (r = 0.2659). This finding lead to the subsequent decision to accept the hypothesis. Additionally, a significant negative correlation was noted between low total coping and nurturance.

Table 14. Correlation of total coping score with total humor and total nurturance subscales.

	Total Coping	Total Humor	Total Nurturance
Total Coping	1	0.2405*	-0.1648
Total Humor	0.2405*	1	-0.0060
Total Nurturance	-0.1648	-0.0060	1

^{*} $p \le 0.05$

Table 15. Correlation of low total coping score with total humor and total nurturance subscales.

	Low Total Coping	Total Humor	Total Nurturance
Low Total Coping	1	-0.0741	-0.5376**
Total Humor	-0.0741	1	0.2315
Total Nurturance	-0.5376**	0.2315	1

Table 16. Correlation of medium total coping score with total humor and total nurturance subscales.

	Medium Total	Total Humor	Total Nurturance
Medium Total Coping	Coping 1	0.0272	0.1941
Total Humor	0.0272	1	-0.0324
Total Nurturance	0.1941	-0.0324	1

Table 17. Correlation of high total coping score with total humor and total nurturance subscales.

	High Total Coping	Total Humor	Total Nurturance
High Total Coping	1	0.5564*	0.2659
Total Humor	0.5564*	1	0.2843
Total Nurturance	0.2659	0.2843	1

 $p \le 0.10$ ** $p \le 0.05$

The results of this study have been presented as they pertain to the five hypotheses tested. Two of the hypotheses were rejected, hypotheses numbers 1 and 2. and three were eventually accepted. Hypotheses numbers 3 and 5 were accepted after total coping was subdivided into high medium and low coping. Hypothesis number 4 was accepted prior to the subdivision of total coping and was strengthened by the subdividing total coping. An interpretation of the findings with respect to the conceptual framework, current literature, and methods in the study follow in the next section.

CHAPTER VI

DISCUSSION and IMPLICATIONS

The Double ABCX model

The aspects of the Double ABCX model as adapted by Spence, Barnes, and Peek (1989) that were of interest in this study were the bB factors or resources of humor and nurturance and how they may be related to family coping. While there was a positive correlation found between humor and coping and a weaker correlation between the variables of nurturance and coping the strength of the relationship was not as strong as anticipated. A possible explanation for this may be found in the multidimensional nature of the variable of coping. As conceptualized, coping is the result of the interaction between the pile up of demands, resources the family possesses or is able to attain, and their perception of the demands. By focusing solely on humor and nurturance as resources the researcher may have limited the effect on coping by not taking into account the plethora of other factors that may influence a families ability to adapt to the chronic illness of a child.

Methods

Characteristics of the sample that may influence the data interpretation are numerous. First there is a relatively small sample size of only a total of 75 parents. The sample is also fairly homogenous in terms of demographics with no significant differences noted in income, amount of work outside the home, or in absolute number of children. While homogeneity is helpful for comparison purposes the same characteristics make

results difficult to generalize to other groups. Demographic data that did have significant differences between groups was the educational level of both mothers and fathers with the parents of the comparison children having significant higher levels of education than the parents of the chronically ill children. Also the mothers of the comparison children were employed in a significantly higher number of professional positions than the mothers of the chronically ill children. These are potentially confounding variables and may influence the results. However, there was no literature found that indicated coping was in any way related to educational level of the parents. Another factor that may influence the results of the data analysis may be that in the Adult Self-Perception Profile (Harter, 1986) not only is a person's perception of competence measured but the importance a person attaches to a particular domain is also part of the equation. It may be that the reason there was no significant differences found in the use of humor and nurturance between groups was that some of the parents felt it was not particularly important to be competent in those domains and perceived themselves accordingly. An additional confounding variable may be that humor and nurturance were measured indirectly as individuals rated themselves on their perceived competence in those domains rather than an actual objective measurement of their use of humor and nurturance.

Current Literature

The current literature does not support or refute the relationship between the use of humor and nurturance and coping with parents of chronically ill children. The fact that there was very limited literature found on the subject was one of the reasons why the subject was selected for this study. The current coping literature suggests several behavioral strategies which may have a positive impact on the coping of parents with

chronically ill children. Communication has been identified as a strategy that has a positive effect on coping (Canam, 1987, Gibson, 1988, and Shapiro, 1983). Acquiring social support has also been indicated as strategy that is associated with parental coping (Hamlett, Pelegrini, & Katz, 1992). Viewing humor as a method of communication and acquiring social support as a dimension of nurturance the results of this study are consistent with those of previous studies.

The findings in this study support the conceptual model in that humor and nurturance do have a positive correlation to the coping of parents with chronically ill children. The strength of that relationship can also be partially explained by the multifaceted nature of coping with no single indicator being solely predictive of parental coping. The fact that parental coping scores had higher values for the chronically ill parents than the comparison parents with significant differences at the .90 C.I. lends further support to the multifaceted nature of parental coping. Should similar studies be undertaken in the future it may be helpful to also account for individuals importance ratings when correlating for differences in total coping as is done in the Adult Self-Perception Profile (Harter, 1986). However, in general terms the results in this study are similar to those of previous studies, such as those reported by Martin & Lefcourt (1983) who showed significant support for the idea that humor has a moderating effect on negative life events. Perceived parental nurturance is associated with coping of everyday stress (Hardy, Power, & Jaedicke, 1993) these results are also consistent with the results of this study.

Implications

The results of this study indicated no significant differences in the use of humor or nurturance between groups of parents regardless of their child's health status, this may give some measure of comfort to families who are confronted with the diagnosis of a childhood chronic illness. The implications for Advanced Practice Nursing are discussed in this section as they relate to each hypothesis individually. Implications and recommendations for further research follow. A general summary of the implications for nursing practice in primary care as they relate to these findings conclude this study.

Hypothesis 1: There will be a significant difference in the use of humor by parents of chronically ill children and the comparison parents. The results showed no significant difference between groups on parental use of humor. This result led the researcher to believe that humor is an equally important or unimportant factor in the lives of all parents regardless of health status of the children. The Advanced Practice Nurse should remember that this behavior is individual and not all persons place the same value on humor depending on each person's unique value system. Those who have expressed positive outcomes with past experiences using humor or feel that there may be some value in using humor as part of their coping repertoire should be encouraged to do so by the Advanced Practice Nurse, whether or not they have a chronically ill child. However the use of humor should remain conditional, in that it should not be used at the expense of another, and the people for whom it is used find a similar value in it's use. In assessing this information the Advanced Practice Nurse would need to ask direct and specific questions of family members. For example, How do you cope with stressful situations?

Do you and your family share in joking, and find humor in your daily lives? Do you believe that using humor within your family is a realistic or helpful coping strategy?

Hypothesis 2: There will be a significant difference in the use of nurturance in parents of chronically ill children compared to parents of healthy children. The results of this study showed no significant differences between groups in the use of parental nurturance. This could in part be due to the fact that there is a lack of means for a parent to accurately judge their use of nurturance. The universally expected value in our society is that if you are a parent part of your role is to be nurturing towards your children irrespective of their health status. For the Advanced Practice Nurse in primary care the development of a few questions incorporated into a family history may give a more objective and quantitative measure of parental nurturance. For example, asking parents what part of their role as a parent they find contributes to the growth and development of their children, and then a tally of the perceived nurturing behaviors to obtain a numeric value that can easily be quantified and used for comparison purposes may be useful. Also observation of the parent-child interaction by the Advanced Practice Nurse may be helpful in noting parental nurturance. Other more subjective measures could be questions regarding knowledge and involvement with children's activities. Questions regarding perceived barriers they view as inhibiting them in reaching their potential for nurturing may also be useful. For instance if parents are preoccupied with scraping together enough money to just feed the family they may not have the enhancement of their children's growth and development uppermost in their minds. Additionally parents of chronically ill children may have there own differences in what they perceive as nurturing behavior compared to the parents of healthy children. The parent of a chronically ill child may

perceive nurturing behavior to be the maintenance of a rigorous medical regime dictated by their child's diagnosis. For example, the maintenance of tight blood sugar control for a diabetic or vigilant monitoring of symptoms and delivery of breathing treatments to the asthmatic. The Advanced Practice Nurse needs to be careful that she use the parents definition of nurturing behavior and not her/his own when assessing the use of nurturance.

Hypothesis 3: There will be no significant difference in the coping of parents of chronically ill children and those parents of healthy children on the total FCOPES (McCubbin, 1987) score. The results of this study found no significant differences in parental coping at the .95 C.I. However, at the .90 C.I. there was a significant difference in the coping scores of the two groups, with the parents of the chronically ill children scoring significantly higher on coping than the parents of healthy children. The differences may in part be explained by the fact that parents of healthy children may not have experienced a potential crisis situation and have not had the opportunity to explore some of the coping behaviors described in F-COPES (McCubbin, 1987). Additionally, according to the Double ABCX model some adjustment does take place over time, this adjustment may be perceived by the family to be coping. Or the chronically ill families may just have a different perception of coping that facilitates higher scores on F-COPES (McCubbin, 1987).

Implications for the Advanced Practice Nurse in Primary care may be that the nurse should assess a family's coping strategies prior to the onset of a crisis. Perhaps at a routine check up when the Advanced Practice Nurse is doing teaching and counseling she/he should provide parents with information related to the child's state of emotional and cognitive development. Providing parents with the opportunity to discuss issues that

are of concern to them regarding their family and children. Asking parents at that time whether or not they are aware of particular community resources available to them and if they would be willing to accept that type of assistance may give the nurse additional information regarding coping behaviors. The Advanced Practice Nurse could also ask about information related to how the family copes with the every day stresses.

Encouraging behaviors that in general promote coping; such as open communication between family members, making sure the family has time together for group and individual interests, and such basic behaviors as obtaining adequate rest and nutrition. All of these behaviors have been shown to be helpful in allowing families to cope with the demands placed on them, so if the time comes when there are additional burdens such as a child's chronic illness the family has a strong foundation upon which to build.

Hypothesis 4: There will be a positive correlation between the humor subscale score and the total F-COPES (McCubbin, 1987) score. The results of this study found a positive relationship between the humor subscale and total coping scores. Also it was demonstrated that the strength of the relationship increased as the total coping scores increased. The implications this has for the Advanced Practice nurse in primary care are to carefully assess each family as to how they cope with stressful situations, and for the Advanced Practice Nurse not to dismiss a patient's or family's attempt at levity, but to perhaps recognize it to be an attempt for the members to cope with a difficult situation. If after assessing a family it has been mutually determined that the use of humor is a valued coping strategy then the family may be assisted in finding ways to channel the coping behavior to their benefit, for example, reminiscing within the family on a humorous story involving family members, or allowing some unstructured time for horseplay or supporting

a child's attempts at making jokes, or simple everyday activities such as sharing a comedy movie together. It would also be important for the family to teach the children appropriate and inappropriate uses for humor.

Hypothesis 5: There will be a positive correlation between the nurturance subscale scores and total F-COPES (McCubbin, 1987) scores. The relationship between nurturance and coping was not found to be as strong as that for humor, however it too did increase in strength as the total coping scores increased. This relationship, however was not linear which makes interpretation of the results more difficult. The reasons for these results could be due to a number of factors; the inconsistent definition of nurturance, or the result of outcome, resource, or unrelated variables. Implications for advanced practice include obtaining an accurate meaning of what each parent perceives as nurturing and assessing for whether or not parents believe that the development of these behaviors would lead to increased coping. It may be that parents do not view particular behaviors as essential to coping with the chronic illness of a child. Parents may also view nurturance as an outcome of their competency as parents rather than an aspect of parenting.

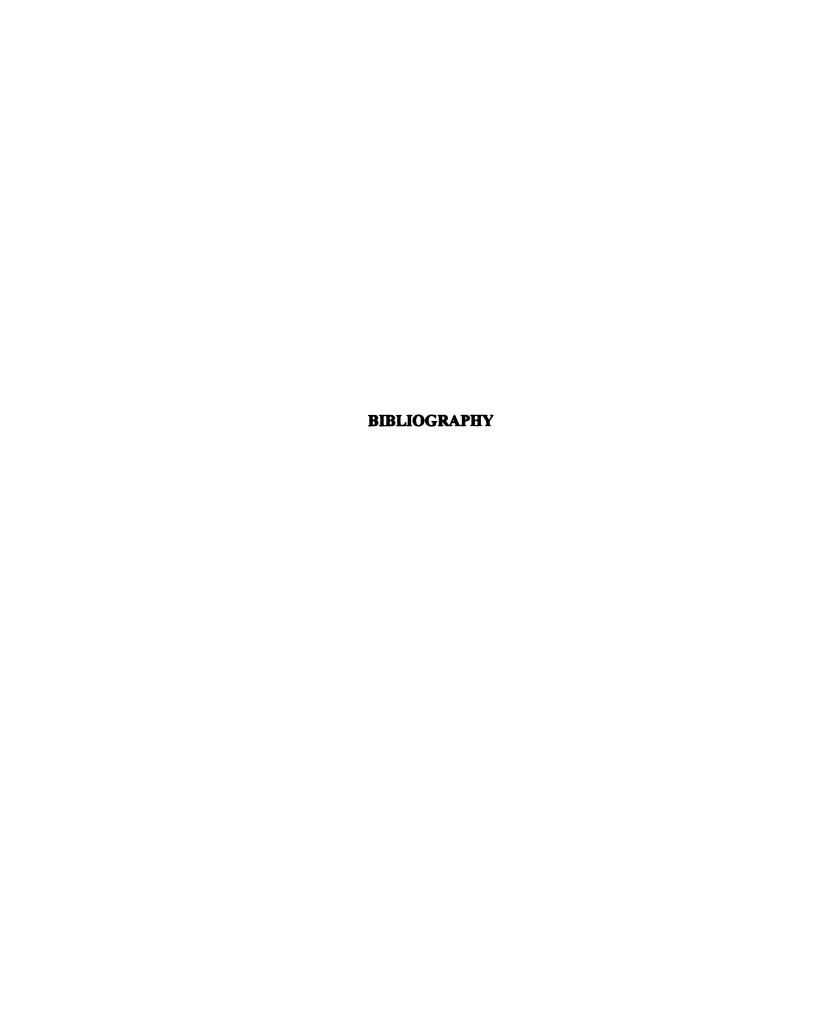
Implications for research

Due to the small sample size and relative homogenous nature of the sample the results would be more conclusive if the results obtained in this study could be replicated on a larger and more diverse sample. This would assist in generalizing the results to a broader population. With increased heterogeneity, factors such as the number of parents in a home, and a wider household income range could be examined for their impact on the results. Also since the nature of chronic illness and it's effects on families continues over time it would be helpful to do longitudinal research to see how coping changes over time,

if the use of humor and nurturance change over time, and if the meaning of coping, humor, or nurturance changes over time as it pertains to parents of chronically ill children. A more precise definition of nurturance which can be quantified with more ease may also be helpful in demonstrating significant results. Additionally, if future researchers examine any relationship that may exist between depression, nurturance, and coping it may help to clarify whether parents view nurturance as an outcome of parenting, a component of parenting, or a result of coping.

Summary

Families are receiving a great deal of information from various sources (the media, health care professionals, and research reports) on how their lives are becoming more complicated with more demands being placed on the family. Every family has its own ways of adapting and adjusting to those demands. The Advanced Practice Nurse can assist families in identifying internal and external resources available or obtainable to them in order to cope with the additional demands of a chronically ill child to prevent the family from developing into a crisis. If in assessing a family's resources the use of humor and nurturance are identified as having a potential value to the family they should not be overlooked. The Advanced Practice Nurse can then guide the family in ways to foster and promote the use of their unique set of resources in order to cope with and subsequently promote bonadaptation.



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MICHIGAN STATE UNIVERSITY

March 3, 1997

Linda Spence A230 Life Sciences

TRRE . PR.

97-194
THE RELATIONSHIP BETWEEN HUMOR AND MURTURANCE AND FAMILY COPING OF PARENTS WITH CHRONICALLY ILL CHILDREN

REVISION REQUESTED: APPROVAL DATE:

1-E 03/03/97

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete. I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS approved this project and any revisions listed above.

REMEMAL:

UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Investigators planning to continue a project beyond one year must use the green renewal form (enclosed with the original approval letter or when a project is renewed) to seek updated certification. There is a maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB 8 and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/

CHANGES:

Should either of the following arise during the course of the work, investigators must notify UCRIHS promptly: (1) problems (unexpected side effects, complaints, etc.) involving human subjects or (2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

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STUDIES

If we can be of any future help, please do not hesitate to contact us at (517)355-2180 or FAX (517)432-1171.

University Committee on Research Involving
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517/355-2180

Sincerely,

David E. Wright UCRIHS Chair

DEW : bed

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