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FAMILY SATISFACTION IN AIR FORCE FAMILIES
AS A FUNCTION OF FAMILY STRENGTHS, RESOURCES
AND COPING FOLLOWING RELOCATION

by
Mary Glycer Olsen

A dissertation submitted in partial fulfillment
of the requirements for the degree

of
DOCTOR OF PHILOSOPHY

in
Psychology

Approved:

Co-Chairman

Co-Chairman

Committee Member

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Committee Member

Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah
1988

DEDICATION

to my late husband, Richard E. Olsen,
who believed in me.

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I would like to express my appreciation to the following persons whose cooperation and assistance made this study possible.

My co-chairmen, Dr. D. Kim Openshaw and Dr. Elwin C. Nielsen, provided encouragement and expert advice which was both helpful and greatly appreciated. In addition, Dr. Phyllis Cole, Dr. William Dobson and Dr. Robert E. Sorenson all provided helpful input.

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Mary Glyer Olsen

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ABSTRACT

Family Satisfaction in Air Force Families as a Function
of Family Strengths, Resources and Coping Following Relocation

by

Mary Glycer Olsen, Doctor of Philosophy
Utah State University, 1988

Major Professors: Dr. Elwin Nielsen and Dr. D. Kim Openshaw

Department: Psychology

The purpose of this study was to investigate to what extent the level of coping skills, internal resources, social support, perception and pile-up of life events affect Air Force families' adjustments after relocation. The major objectives were threefold: (a) to assess which of the husbands' and wives' strengths and resources contributed to the family's adjustment to the stress associated with permanent change of station moves, (b) to explore whether wives' levels of coping are critical to family adjustment and (c) to determine if the types and/or levels of coping used are significantly different at two points in time after the move. A secondary objective was an exploration through factor analyses of the construct validity for this population of four of the measures used: FACES, Quality of Life, Ways of Coping Checklist and Social Support Inventory.

Results showed that for the husbands and wives pile-up of life events had a significant inverse relationship to mean Quality of Life with Displacement/Denial, FACES and Perception also correlated for the wives. For both husbands and wives, the FACES discrepancy score was significantly correlated with the discrepancy Quality of Life score with pile-up and Reframing also correlated for the wives. Controlling for the

influence of the moderator variables, pile-up of life events was significantly correlated with mean Quality of Life for the husbands while pile-up and Social Support were correlated for the wives. The wives had pile-up, Reframing, Discrepancy FACES and Self-focused Coping which showed a significant correlation with discrepancy Quality of Life.

Wives showed a greater use of several types of coping including Positive Focus, Social Support, Displacement/Denial and Reframing while the husbands showed a greater use of coworkers for social support and Problem-focused Coping. A higher usage of special groups for social support was the only difference found between the individuals who had moved at different points in time. In addition, the results provided further empirical support for the Double ABCX Family Stress Model. Suggestions were made for interventions to help to alleviate the stress of moving for the military family.

(171 pages)

STRUCTURED INTERVIEW

1. How long ago did you move here?
2. How much advance notice did you have before the move?
3. Where did you come from? How long were you stationed there?
4. How did you feel about leaving your last base?
5. Have you lived in this area before?
6. How did you feel about coming to Hill Air Force Base? At present, how do you feel about being here at Hill Air Force Base?
7. What do you like about HAFB? What do you dislike about it?
8. What sorts of problems did you encounter because of this move?
9. What coping behaviors worked best in responding to these problems?
10. What coping behaviors did not work well and why?
11. Which member of the family adjusted best to the move? Worst?
12. What was the most helpful overall in adjusting to the move?
13. How did this move compare to prior moves?
14. What has the Air Force done to help with the move?
15. What more could the Air Force do to make moves less stressful?
16. What coping behaviors would you recommend to other Air Force families prior to, during and after a move?
17. What are the four most important stressors of Air Force life?
18. Families are continually struggling to achieve a sense of balance and fit with the Air Force and its lifestyle. We call this adaptation. Do you feel that you have adapted to the Air Force lifestyle? Why?
19. What have you done to help you to adapt?
20. What has the Air Force done to help you to adapt?
21. What can the Air Force do as a community to help with adaptation?
22. Do you have any further information which would be useful or helpful in regard to this study?
23. Do you have any questions about this study?
24. What are your feelings about this study?

CHAPTER I

INTRODUCTION

The Problem

With the advent of the all-volunteer military, the Air Force has become very concerned with maintaining a high-quality force. Declining retention rates in 1978 and 1979 increased this concern and sparked studies to determine the cause for members choosing to leave the military. Increasingly, the services have focused on the relationship between family attitudes and satisfaction and their effect on retention. Jerry L. Calhoun, acting assistant secretary of Defense for Force Management and Personnel, summarized his belief in the importance of this relationship succinctly when he stated, "Families are paramount to the retention of our armed forces" (p. 36). He later added, "Family harmony is a very big part of the military's morale and quality of life, but also a part of mission readiness" (Young, 1985, p. 36). Senator Edward J. Kennedy, likewise recently stated, "The readiness and morale of our troops is critically dependent on the well-being of their family members, an issue which deserves as much attention as any of the more traditional components of military preparedness" (Craver, 1985a, p. 4).

A U.S. Department of the Air Force publication in 1981 cited two reasons why the Air Force has recognized and focused on the importance of families in maintaining a skilled force: (a) During the 1970s the Air Force changed from a largely unmarried force to a force which now predominantly consists of members with families; and (b) Air Force studies showed a high correlation between the family's attitude toward the Air Force and the career decision of the Air Force member. In light of these two factors, in July of 1980, the Air Force created an office of Air Force Family Matters (AFFAM). Its primary goal was to enhance Air Force mission readiness by dealing with family issues which impact on

Footnote: The Air Force Times, which serves as the source of official Air Force information, has been ruled as a source of data on Air Force statistics and policy since this information is not otherwise readily available to the general public.

retention and productivity of Air Force members (U.S. Department of the Air Force, 1981).

Permanent Change of Station Moves

One factor which has been found to affect military families is the necessity to move to new locations every few years. At an Air Force Conference on Families in 1980, one of the pinpointed areas of family concern was frequent Permanent Change of Station moves (hereafter designated as PCS moves). A PCS move is any transfer to a new location in which personal property is transported to the new location which is now considered to be the A. F. member's permanent duty station as opposed to a temporary duty station (TDY). A TDY, in contrast, is any temporary assignment, usually away from home base, which can last up to six months. If the assignment is away from home base, the member maintains his permanent home and is given per diem living expenses.

A PCS move can impact a family in many different ways. A number of current Air Force Times and other newspaper articles (Ginovsky, 1987, 1984; Janowitz, 1981; Mace & Ginovsky, 1981; "Make Career Appeal", 1981; Maze, 1984; Morrissette, 1985; Philpott, 1984; "Tice; Improve the Quality", 1981; Weinraub, 1980; Woelfel & Savell, 1977) have discussed the stressors and problems associated with PCS moves. The Air Force has taken measures to make improvements in the problem areas. While acknowledging the improvements, a number of sources feel that they are either inadequate or not receiving the focus and funding they need (Armstrong, 1981; Budahn, 1986; Craver, 1985 a, b; "Family Support Centers, 1986; Dalton, 1988a; Garamone, 1986; Ginovsky, 1986, 1987; Hunter, 1977; Long, 1986; Middleton, 1981; "PCS Moves," 1981; Philpott, 1981).

A number of studies have examined the effects of moving or relocation. These studies have shown that tremendous strain is placed upon a family's financial, emotional and social resources (Fried, 1977; Gaylord, 1979; Levin, Groves & Lurie, 1980; Levine,

1976; Long, 1986; Marsh, 1976; McKain, 1976; Pedersen & Sullivan, 1964; Philpott, 1981, 1984; Stubbenfield, 1955; Tiger, 1974). The effect of this strain was dramatically brought to national attention in 1984 when 13 year-old Danny Holley committed suicide so that his parents would have "one less mouth to feed." His family had recently moved to a base in California and, with no available base housing and with local high rents, had been forced into poverty.

Several of the above studies assert that the burden of the adjustment process falls upon the wife/mother and that her role in the family adjustment process is crucial. McKain (1976) suggested that the wife's alienation resulting from geographical mobility results in poor family adjustment to the move. Levin, Groves and Lurie (1980) and Tiger (1974) both emphasized that the wife, in comparison to the husband, faces an increased sense of loss and difficulty in adjustment because the husband is usually in a familiar work environment, possibly with people he has met before. Two factors which many of the wives surveyed felt had negative impact on their families were reduced employment opportunities and the reduction in income caused by PCS moves. Pedersen and Sullivan (1964) found that a poor attitude in the mother was linked to an increase in emotional disturbance in children. And finally, the keynote speaker at the 1981 U.S.O. International Conference on Military Family Life, asserted that the mother of the family seems to be the key to how the family reacts to moving. "If she treats change as an adventure and a chance for new experiences, the rest of the family is less likely to suffer severe stress" ("Move Can Create," 1981, p. 15).

Another factor adding to the stress of the woman's role is what Belle (1982) called the "support gap," or the difference between the amount of social support given to others and the amount received. She asserts that this problem occurs because women "have a moral sense which emphasizes caring for others" and goes on to add that "this sense of connection and responsibility for others" (p. 497) results in their willingness to provide social support for family members. Thus, in family crisis the woman is a prime source of

support for family members, yet may have insufficient support for herself.

A recent survey done on Air Force personnel determined that "spouses make up 25 percent of the variance in the decision to reenlist" (Garamone, 1986, p. 6). In this survey, two factors which many of the wives felt had negative impact on their families were reduced employment opportunities and the reduction in income caused by PCS moves. These results support the viewpoint of Woelfel and Savell (1977). Thus, the Air Force is beginning to recognize the impact that PCS moves have on Air Force families and the important role that spouses play in retention.

Double ABCX Family Crisis Model

Stressors such as relocation can impact families in many ways. Hamilton McCubbin and his associates developed the Double ABCX Family Crisis Model (see Figure 1) to help explain the variables which influence a family's reaction to stressful events such as relocation, chronic illness or catastrophic events (McCubbin & Patterson, 1981). Based on Reuben Hill's ABCX Family Crisis framework (Hill, 1958) the Double ABCX model asserts that the level of adaptation reached by each family varies as a function of a number of variables including coping, social support, family strengths and resources and number of stressors affecting the family. These variables will be defined and discussed in detail in the literature review.

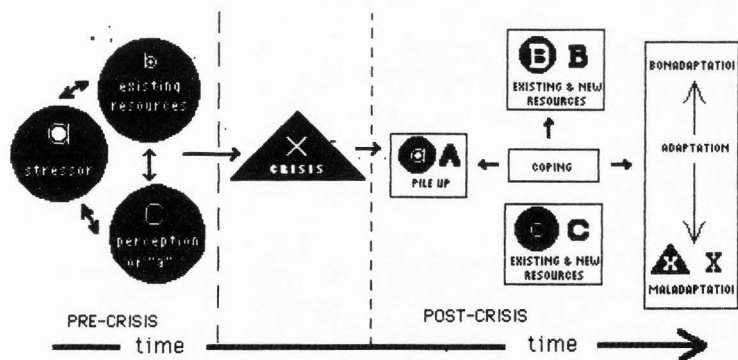


Figure 1. The Double ABCX Family Crisis Model (from McCubbin & Patterson, 1982).

Coping is regarded as a key element in the family's vulnerability to stress. Studies focusing on the coping process have produced results which emphasize the need to consider individual variables along with system variables in the development of family-stress theory (Boss, McCubbin & Lester, 1979; McCubbin, Dahl, Lester & Benson, 1976; McCubbin & Lester, 1977). Both Menaghan (1983) and McCubbin et al. (1980) stress that research investigating conflict among individual coping styles or ways in which individual coping styles may affect family-level measures remain important unanswered questions for further research. Low correlations between many husband and wife responses have indicated that basing family scores on just one member's responses would not truly represent a family consensus (Olson, McCubbin, Barnes, Larsen, Muxen & Wilson, 1983).

In sum, in the past decade, there has been a tremendous surge in research in the areas of coping, family adjustment and family-stress theory. These studies have dealt with many types of stressors and many of the variables included in McCubbin's model. However, there have been problems with much of this research. 1) Most was done on small samples

cataclysmic events as stressors (e.g., tornado victims) or defined and studied stress in the context of long term events such as war-induced separation or spinal cord injury (Barbarin, Hughes & Chesler, 1985; McCubbin et. al., 1976b; McCubbin, Hunter & Metres, 1974; McCubbin, Nevin, Cauble, Comeau, & Patterson, 1982; Nevin, McCubbin, Comeau, Patterson, Cauble, & Schoonmaker, 1981); 3) Many past research studies used measures and concepts unique to that study (Menaghan, 1983). Menaghan contends that if there is no comparability among such studies, the generalizability of individual discoveries remains uncertain. 4) Most studies used a three variable research design in examining stressor event, family response to the stressor and outcome of that response as opposed to focusing on more of the multiple variables which may impact on the family's adjustment to stress (Folkman, 1979; McCubbin et. al., 1980; McCubbin & Patterson, 1981).

Objectives

The basic problem to be investigated in this study is: to what extent do Air Force husbands' and wives' levels of coping skills, internal resources, social support, perception and pile-up of life events affect family adjustment after relocation? The major objectives of the study are (a) to assess which Air Force wives' and husbands' strengths and resources contributed to the family's adjustment to stress associated with PCS moves, (b) to explore whether wives' levels of coping are critical to family adjustment, and (c) to assess if the types and/or levels of coping are significantly different at two points in time after the move.

For the purposes of this study, the empirical model (based on the Double ABCX model) used will be (Figure 2):

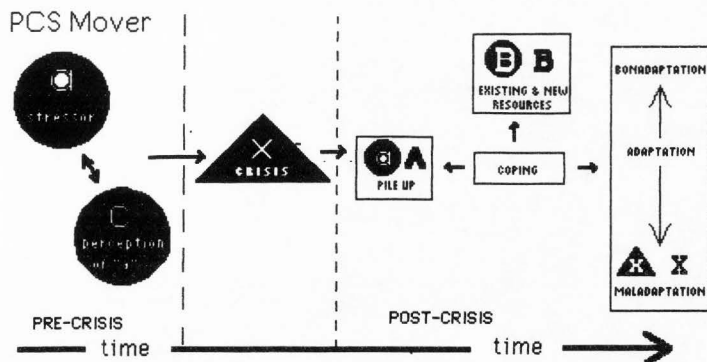


Figure 2. The Empirical Model for This Study (Adapted from The Double ABCX Family Crisis Model, McCubbin & Patterson, 1982).

To address some of the problems with past research efforts which are mentioned above, this research will have the following features. First, it will deal with a normative stressor rather than a catastrophic stressor (McCubbin & Figley, 1983). PCS moves are stressors which are universal to military families and thus would be considered normative. Second, it will use measures and concepts common to other stress studies. Several of the instruments used (FACES II, FILE, Quality of Life) have been used in many of the studies conducted by David Olson, Hamilton McCubbin and their associates including one nationwide study done on 1140 couples. The concepts shown in Figure 2 have been discussed and developed in these same studies. Third, it will focus on multiple variables which may impact on the family's adjustment to stress. Whereas many of the previous studies have used a three variable research design, the present study will examine the stressor event, the effects of pile-up of stressor events, family resources, coping, social support, perception on family response and outcome of the response. Fourth, it will consider individual as well as family-level measures. Both coping, perception and social support

will be measured individually for the husbands and wives in this study. Family-level variables to be utilized are family resources, family satisfaction and pile-up of life events. And finally, it will investigate the effects at different points in time. Two separate groups will be examined, those who moved less than six months prior to the study and those who moved more than six months before to determine if there are significantly different responses at the two points of time after the move.

Hypotheses

Based on the objectives and theoretical framework of this study, the following hypotheses are being investigated.

1. There is no significant relationship between family satisfaction and family adaptability and cohesion, social support, level of coping skills, perception and pile-up of life events.
2. There is no significant relationship between family satisfaction and family adaptability and cohesion, social support, perception, level of coping skills and pile-up after controlling for the influence of the following variables: number of previous moves, years married, education, rank, number of children, ages of children, attitude toward the Air Force, attitude toward the move to new base, number of months since the move, wife's employment, and number of years in the service.
3. There is no significant difference between the scores of husbands and wives on coping, social support and family satisfaction.
4. There is no significant difference between coping skills and levels of family satisfaction at the different points in time after the move.

CHAPTER II

REVIEW OF RELATED LITERATURE

This review of literature includes seven sections. First, the field of stress is examined with an introduction to stress in general and to family stress theory in particular. Second, the stressors facing military families are discussed. Third, the literature on relocation is reviewed to establish that relocation (moving) can be considered a serious family stressor and to review some of the effects that relocation has been found to have on families. Fourth, Reuben Hill's ABCX Family Crisis Model, which provided a model for many of the research studies in the field of family stress, is introduced. Fifth, the research done in the area of coping is elaborated on since it is regarded as a key element in the family's vulnerability to stress and since coping studies have suggested ways to improve family behavior in response to stress rather than emphasizing the dysfunctional aspects of family crisis. Sixth, the Double ABCX Family Stress Model is examined since it was utilized as a theoretical framework for this study. And finally, the implications drawn from the literature review are summarized.

Introduction to Stress

In the past few decades, there has been a tremendous increase in interest and research on stress. Hans Selye defined stress as the "nonspecific or common result of any demand upon the body" (Goldberger & Breznitz, 1982, p. 15). Whereas Selye's original concept was a physiological application, stress is now considered to be an important concept in the understanding of physiological, psychological and social problems. Stressors are considered to be external events or conditions that affect (can produce stress in) the organism (Goldberger & Breznitz, 1982). Thus, stressors include such wide-ranging conditions as sensory deprivation, occupational problems, or life transitional points such as adolescence. And the effects of stress can include a variety of problems ranging from psychiatric or physical disorders to organizational or relational problems.

One area of stress research which has expanded rapidly in the past fifteen years is the area of family-stress research. Family-systems theory has influenced the work in this area. One basic concept central to family-systems theory is that a system includes a number of parts which are organized so that a change in one or more parts is usually accompanied by a change in the other parts of the system (Lederer & Jackson, 1968). As such, an event or condition which affects any one member of the family is likely to affect the family system. And because the family is a complex system of interpersonal relationships, it is subject to many stressors.

The stressors which affect the family system may be normative or catastrophic. Normative stressors are those changes or transitions which are expected and predictable, which most families will experience over the life cycle, and which require adjustment and adaptation (McCubbin & Figley, 1983). They include such things as childhood accidents and illnesses, deaths and births of extended family members, school transitions, adolescent rebellious behavior and launching young adults (McCubbin & Patterson, 1982). Catastrophic stress, on the other hand, is defined as sudden and extreme threat to survival which is associated with a sense of helplessness, disruption, destruction, and loss (McCubbin & Figley, 1983). Events which might induce catastrophic stress in a family include such things as rape, war, death of a spouse and natural disasters.

Problems Facing Military Families

The life of a military family includes a number of inherent stressors. One which this study will focus on is the Permanent Change of Station (PCS) move, which is any transfer to a new location in which personal property is transported to the new location and which is now considered to be the A.F. member's permanent duty station. Other stressors common to military families are long and/or irregular work hours, temporary or long-term separations due to temporary duties or remote assignments, and foreign assignments for the family (U.S. Department of the Air Force, 1981). Temporary duty is the name given

to any temporary assignment, usually away from home base, which can last up to six months. If the assignment is away from home base, the member maintains his permanent home and is given per diem living expenses. Remote assignments are assignments in which the Air Force member is sent to an overseas or remote base without his family for at least six months. These stressors, coupled with normative stressors, make the military family especially prone to stress (Hunter, 1977; McCubbin, Dahl & Hunter, 1976; McCubbin & Marsden, 1978).

A recent book, The Military Family: Dynamics and Treatment, (Kaslow & Ridenour, 1984) is devoted entirely to a discussion of problems and treatment issues for military families. The book jacket includes a paragraph which summarizes the stressors and their effects very well:

The military family is typically confronted by frequent separations, relocations, reunions, and, all too often, physical danger. Equally stressful, if less glamorous, are the rigors of daily life in a highly regimented society in which the needs and natural tendencies of the family must always be tempered by the exigencies of the larger "family" of which it is a part. At first blush, the problems besetting service families might seem significantly different from those confronting civilians. On closer scrutiny, however, numerous analogies emerge: doctors, like soldiers are often suddenly called away from the family on a "mission" of life or death; and academics and corporate executives are often forced to relocate owing to the vagaries of the marketplace. What distinguishes military life, then, is not so much the nature of the challenges it poses, but the number; few civilian families face so many in aggregate.

Moving is a way of life for families in the military. An average of one of every five military families move per year ("Move Can Create," 1981). Thus, the average active duty person who has been in the service 14 years or more has made eight PCS moves ("Your Move," 1984). Because of this, moving in military families is both a frequent and common stressor.

Relocation

In their review of the literature on corporate families and relocation, Richards, Donohue and Gullotta (1985) point out that there have been too few studies done in the area of relocation to substantiate a theory of geographic mobility. Research has been done

separately in the areas of organizational behavior and in psychology and sociology, but there have been few attempts to integrate the findings. Some of the problems with the research which has been done is that much of it has been either descriptive, anecdotal or surveys which are conducted from a retrospective viewpoint. Retrospective studies, because they are based on before-and-after recall can include errors of memory, distortion, and rationalization. In addition, there have been few studies utilizing comparison groups and these have been limited by a lack of controls. As Richards, Donohue and Gullotta point out, "Well-designed, structured research is needed for the development of a reliable theory of employee relocation and the consequences of corporate mobility on individuals and family systems" (p. 71).

In spite of the lack of well-designed research, the studies which have been done have consistently suggested that relocation (moving) affects families in many ways. For many families, each move can be a financial strain. In addition to financial stressors, other problems which have been associated with frequent moves include increases in alcohol consumption, increase in marital problems such as extramarital relationships, staying away from the family and/or consideration of divorce, hypertension, rate of heart attacks, depression among women, somatization, rate of duodenal ulcers, and delinquency rate in boys (Donohue & Gullotta, 1981; Gullotta & Donohue, 1981, 1983; Richards, et al., 1985; "Your Move," 1984). Stein (1984) believes that relocation can precipitate a crisis in individuals or families because of unresolved issues of separation-individuation.

Jones (1973) found that the stress of relocation (as described by feelings of loneliness, depression, tearful moments, irritability, insomnia, anxiety and apathy) continued to build in the weeks following relocation. The continuing effect of relocation as proposed by Sluzki's (1979) hypothesis is that a move is not a single event, but rather several events or stages: preparation, migration, overcompensation, and decompensation. The preparation stage was seen as the anxiousness, euphoria, and fear which families experience prior to a move. The second stage, migration or the actual move, can often

cause a family to feel disoriented. Sluzki asserts that following the move, the family will protectively close ranks and function more effectively than usual, the overcompensation stage. And finally, the family may have problems weeks or months after the move (decompensation), depending on how well they cope, on what meaning they have given to the move and the support provided by the community.

One study is a contrast to the preponderance of retrospective studies in this area is a recent study done by Steinglass, De-Nour and Shye (1985). Steinglass et al. examined the relationships among individual coping styles, social network characteristics and parameters of psychosocial adjustment manifested by community residents immediately prior to a relocation. This relocation was also somewhat different in that it involved an entire community of families which were forced to relocate due to the Israeli withdrawal from the Sinai peninsula. Steinglass et al. found that coping style was the single best predictor of lower levels of demoralization in subjects with active coping and self-image being the two dimensions of coping (as measured by the Shanin Sentence Completion Technique) which were statistically relevant. In addition, they found that kinship-network size was the most powerful predictor of social adjustment (as measured by the Social Adjustment Scale-Self Report). If these researchers are able to obtain follow-up data, they will be in a position to determine if the short-term distress experienced by their subjects is a valid predictor of long-term psychopathology and also may be able to identify specific coping styles which can enhance adjustment or which can place people at high risk to develop serious psychopathology following a major forced relocation.

As mentioned above, relocation can cause financial strain in families. One of the reasons that moving induces financial stress in the military family is that payable allowances and benefits do not cover the full cost of moving (Marsh, 1976). A recent A. F. Times article stated, "For every \$3 an Air Force individual pays on PCS moves, only \$1 is reimbursed by the government" (Ginovsky, 1987, p. 6). Ginovsky stated that almost 60 percent of Air Force members have to borrow or withdraw from savings to meet their

PCS expenses. Philpott (1984) indicates that out-of-pocket expenses for PCS moves have increased 40% in the last few years, thus forcing both enlisted men and officers to pay several thousand dollars per move over what the military provides.

The frequent relocations that military families experience interrupt close ties with grandparents, relatives and friends who might otherwise help to provide stability and emotional support. This is especially true for military families who move to overseas locations and who may, in addition, experience "culture shock", the stress created when one is uprooted from one culture and transplanted into another with a different culture, language, life-style and loss of familiar ties and surroundings.

Gullotta and Donohue (1983) described three areas of difficulties for children after relocation: 1) The loss of friends and the lack of emotional preparation can produce feelings of abandonment, helplessness and isolation. 2) Children who do not express their grief directly may internalize it and experience feelings of depression or withdrawal. 3) Other children may act out their feelings resulting in behavioral or school problems. Not all researchers, however, have found that moving affects children negatively. Barrett and Noble (1973) in their study of 159 families, including 318 children between the ages of 3 and 18, who had experienced long-distance moves, suggested that anxiety about negative effects of moving on the emotional adjustment of children was largely unfounded. However, they did add that children 11 or older might have more difficulty making new friends than would younger children and that children do become somewhat more disturbed just after their move, although the degree of disturbance did not differ from the general population and the effect dissipated rather quickly. Their study was limited by the fact that their population studied included only those who were in a middle-to upper income bracket.

Although it has been demonstrated that moving may affect the entire family, many researchers agree that the wife/mother seems to experience a greater amount of stress or emotional impact. Ammons, Nelson and Wodarski (1982) found that after relocation wives experienced the "negative" emotions of boredom, loss, depression and loneliness to

a more significant degree than the husbands. Butler et al. found that recent residential mobility experiences affected the mental health of females more than that of males (Butler, McAllister & Kaiser, 1973; McAllister, Butler & Kaiser, 1973). Several studies have examined the effects of relocation on wives and suggest several possible explanations for the greater amount of experienced stress. Fried (1977) compared the reaction of individuals who were relocated to that of the grief reaction. This reaction was explored by Levin et al. (1980) who worked with support groups for women who had recently moved. Although they were executives' wives, their reactions are similar to what military wives experience. The wives in Levin's study expressed sadness and grieving for what they left behind, loneliness, vulnerability, a feeling of helplessness, and a loss of identity and self-esteem. They reported that they no longer had their customary sources of recognition. They experienced anger toward the spouse's job or their new community, culture shock, an increased dependency on the spouse for meeting needs, and frustration with managing in the new environment.

Tiger (1974) suggested that relocated wives are deprived of the fundamental human requirements of social continuity and personal stability. In moving, the husband is usually in a familiar work environment, possibly with people he has met before. In contrast, the wife often has to reconstruct a new life and personal community for herself and her children. To illustrate this lack of social continuity, Tiger quotes from a letter written by one wife who had moved frequently, "Only my husband knows and cares about my past and my future." (p. 139). He noted that an important research rule that anthropologists bear in mind when studying a community is, "The most important thing to know is what they take for granted," (p. 182). Hunter and Nice (1978) point out in the dedication to their book, military dependents are "expected to adapt to the constant of change."

As shown above, the military wife is subject not only to the financial, emotional and social strains associated with PCS moves, but experiences a lack of social continuity to a greater degree than that experienced by her husband. Add to this the increased demand for

social support by family members discussed by Belle (1982), and it can be seen that these women are likely to experience a high degree of stress.

Although the wife/mother may be more subject to increased stress from the move, several studies (Donohue & Gullotta, 1981; Jones, 1973; Lehr & Hendrickson, 1968) have shown that the mother's role is very important in making a successful move. Gullotta and Donohue (1983) state that what the move means to each family member and to the family as a whole will determine the family's reaction to it. They believe that as the usual principal caretaker, it is the mother who interprets the meaning of the move to the children. Thus, they see her satisfaction with the move as being vital to its success. In Jones' (1973) study, 78% of the women sampled expressed the conviction that "the wife is the key person in establishing the home and making the move successful" (p. 212). Jones found that for the wives, involvement in the decision-making process and visiting the new community before the relocation increased the chances of satisfaction with the move. Carruthers and Pinder (1983) also found that prior familiarity helped to influence both employee and spousal satisfaction with a relocation. They also found that for the wife, spousal employment was an important predictor of location satisfaction. Studies by both Casey (1980) and Brett and Werbel (1980) substantiated the conclusion that the happiness of the wife in her new community was related to the degree of her involvement in the decision to move and the planning of the move.

In spite of the lack of a viable theory of geographical mobility, Gullotta and Donohue (1983) have utilized the information gained from past studies in an effort to facilitate corporations to ease the stress that most families feel following relocation. They encourage corporations to consider the following four factors: 1) They encourage corporations to employ relocation officers to assist families at all stages of the moving process. 2) They encourage companies to offer a site visit to the family or at least to the spouse since studies have shown that a visit makes acceptance more likely and aids in the relocation process after the move. 3) They advise that corporations hold education seminars for employees

and spouses to discuss problems and choices and teach problem-solving techniques. 4) They encourage corporations to use a publication that they have compiled called "Plain Talk About Moving". This consists of a series of six newsletters which provide information at the time when it is needed by families over the course of the move from the time the move is announced to several weeks after the move.

Family Stress Theory

One recent study by Lavee and McCubbin (1985) examined Army families adaptation to relocation in West Germany. They used the Double ABCX model of family stress as a theoretical guide in their study. The Double ABCX model of family stress uses Reuben Hill's (1958, 1965) Family Crisis Model as its foundation as, indeed, Hill's model has served as a foundation for much of the research produced in the area of family stress. Hill's model is as follows (p. 143):

A (the stressor event) -- interacting with B (the family's crisis-meeting resources) -- interacting with C (the definition the family makes of the event) -- produce X (the amount of crisis).

McCubbin and Patterson (1982) define the variables in the above model as follows:

1. Stressor (Factor A): A life event which produces change in the family system.

Both positive and negative events can produce change and thus be considered stressors.

2. The family's crisis-meeting resources (Factor B): These are the key factors which affect a family's adjustment to stressors and include: (a) family members' personal resources, (b) the family system's internal resources, (c) social support and (d) coping.

Because these are key factors, each will be elaborated on later.

3. The definition the family makes of the event (Factor C): The family's subjective perception of the stressor and its effects and how they affect them. It is influenced by family values and by previous experiences in dealing with stressors.

4. Crisis (Factor X): A continuous variable which reflects the amount of

disruptiveness or disorganization in the family system.

Additional definitions which are important to the family crisis model include the following:

5. Family vulnerability: The family's ability to prevent the event of change from causing a crisis and which is influenced by Factors A, B, and C taken together (Burr, 1973).

6. Stress: The state which arises from an actual or perceived demand-capability imbalance in the family's functioning and which is characterized by a non-specific demand for adaptive behavior (McCubbin & Patterson, 1982).

7. Distress: Stress becomes distress when it is subjectively perceived as unpleasant by the family (McCubbin & Patterson, 1982).

Hill's B factor, the family's crisis-meeting resources, has generated considerable research in the last decade (Hansen & Johnson, 1979). It is considered to be a key factor because it describes the family's ability to prevent an event of change in the family social system from creating some crisis or disruptiveness in the system (Burr, 1973, 1979).

One of the family's crisis-meeting resources is what McCubbin and Patterson (1981) term the family members' personal resources. This term refers to a broad range of individual characteristics which are potentially available in times of need. Four basic characteristics discussed by McCubbin and Patterson (1981) include: (a) financial (economic well-being); (b) education (they see as contributing to cognitive ability that facilitates realistic stress perception and problem-solving skills); (c) health; and (d) psychological resources (personality characteristics). Pearlin and Schooler (1978) examined the area of psychological resources and identified three important resources; (a) self esteem -- the positiveness of one's attitude toward oneself; (b) mastery -- the extent to which one perceives control over one's life changes in contrast to being fatalistic; and (c) self-denigration -- the extent to which one holds negative attitudes towards oneself.

A second area of family crisis-meeting resources is the family system's internal

resources. Family cohesion and family adaptability are two important internal resources. Family cohesion is defined as the emotional bonding that family members have toward one another and the degree of individual autonomy they experience (Olson & McCubbin, 1982). The following are some of the variables used to measure family cohesion: emotional bonding, independence, boundaries, coalitions, time, space, friends, decision-making and interests and recreation. Olson and McCubbin defined family adaptability as the ability of a family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress. Adaptability represents the family's capacity to meet obstacles and shift courses as a family.

Olson, McCubbin, Barnes, Larsen, Muxen and Wilson (1983) include family strengths and marital strengths as further internal resources in the family system. Family strengths include the two dimensions of pride and accord. Marital strengths, in contrast, includes twelve categories including: idealistic distortion, marital satisfaction, personality issues, communication, conflict resolution, financial management, leisure activities, sexual relationship, children and marriage, family and friends, equalitarian roles, and religious orientation.

A third family crisis-meeting resource is described as social support, resources which are external to the family system such as neighbors, extended family members, friends, and community agencies. These resources can benefit the family through emotional support, esteem support, network support, or by lending some form of assistance when the family is in need (Cobb, 1976, 1982; Holahan & Moos, 1985; Lee, 1979). Cobb, Cassel (1976) and LaGreca (1985) hypothesized that support from others may be related to how effectively individuals cope with stress and that the lack of strong social ties can greatly amplify the unhealthy effects of tension.

Interest in the positive effects of social support has caused research in this area to mushroom in recent years. Two early contributors to the literature in the area were Caplan (1974) and Cassel (1976). Caplan conceptualized social support as interactions

with others that bring about greater accommodation with the environment. Cassel, an epidemiologist, incorporated psychosocial factors, including social support, into a reformulation of the theory about the nature and cause of disease. Cassel argued that a variety of social factors are influential in determining susceptibility to disease. He believed that social disorganization can increase generalized susceptibility to disease and that social supports can serve as protective factors to buffer individuals against stress.

Because of the implications of the above hypotheses for health care, research in the area of social support since 1970 has been extensive. In their review of the literature to date, Schradle and Dougher (1985) conclude that, on the whole, studies have supported the hypothesis that a variety of physical and mental disorders occur more frequently among individuals lacking in social support and that social support appears to be an important environmental factor influencing an individual's susceptibility to both physical and mental disorder. Cohen and Wills (1985) point out, however, that the process through which social support contributes positively to well-being is unclear. They state that, though there is evidence of a positive correlation between social support and well-being, there are two very different models of explanation. One, termed the buffering model, proposes that social support is related to well-being primarily for persons under stress and that the social support then "buffers" or protects individuals from the potentially harmful influence of stressful events. The alternative model proposes that social resources have a beneficial effect regardless of whether persons are under stress or not. Since this model is derived from a statistical demonstration of support with no Stress X Support interaction, this model is termed the main-effect model. In their review of the literature, Cohen and Wills found evidence for both models. They state that evidence for a buffering effect is found when the social support measure assesses the perceived availability of interpersonal resources that are responsive to the needs elicited by stressful events. Evidence for a main-effect model is found when the support measure assesses a person's degree of integration in a large social network. Wethington and Kessler (1986) found that perceived support is

more important than actual received support in predicting adjustment to stressful life events.

Sarason, Sarason and Shearin (1986) suggest that social support might be conceptualized as an individual difference variable as well as an environmental provision (which assumes that the amount of social support that an individual has depends on what the social environment provides). As evidence for social support as an individual difference variable, they found that self-reports of availability and satisfaction with social support are stable over long periods of time and across situations and that people who are low in social support are relatively deficient in social skills as judged both by themselves and others.

Several investigators have also noted gender differences in regard to social support (Cohen & Wills, 1985; Hays & Oxley, 1986; Sarason et al., 1986). Hays and Oxley found that females interacted more frequently with network members and exchanged more informational and emotional support than did the males in their study. In addition, the men reported significantly more cross-sex individuals in their networks than did the women. Cohen and Wills cite two studies finding buffering effects of confidante support for women but not for men whereas men but not women showed buffering effects from acquaintance, friendship and reassurance of worth. Sarason, Sarason and Shearin found that women were rated higher in areas of Consideration and Attractiveness and seen as more effective in social interaction than were the men.

There have been many difficulties with the research done in the area of social support. One major problem mentioned by Schradle and Dougher (1985) and Cohen and Wills (1985) is that there have been a wide variety of methods and instruments used to assess social support and few of these have been used repeatedly or consistently. The result is that the concept has been operationalized in a number of different ways and it is difficult to draw meaningful comparisons across studies. Although the evidence for a relationship between social support and mental and physical health is strong and consistent, the basic methodological weakness of correlational design has been used repeatedly. The possible

causal role of social support cannot be determined without experimental research. In addition, much of the research does not take into account individual differences in stress reactions and coping strategies. Schradle and Dougher suggest that research in this area could benefit by utilizing the Lazarus (1966) model of stress and coping, which focuses on how individuals differ in their reactions to situations because of individual differences in coping strategies. They believe that this model would provide a framework to study social support within a larger theoretical context of coping with stress. In addition, little research has been done to assess both positive and negative consequences of support.

Coping

Coping, the last of the family's crisis-meeting resources, has been defined in a number of ways. Coping was defined by Boss, McCubbin and Lester (1979) as "strategies for dealing with stress." Menaghan (1983, p. 114) defined coping as "specific actions (covert or overt) taken in specific situations which are intended to reduce a given problem or stress." The definition of coping advanced by Pearlin and Schooler (1978) is "any response to external life strains that serves to prevent, avoid or control emotional distress" (p. 3). For this study, coping will be defined as behavioral responses meant to reduce a given problem or the stress associated with it as well as behaviors aimed at altering the perception of stress and the emotional distress associated with life problems (e.g. reframing, denial).

In the family stress model, coping is a bridging concept which has both cognitive and behavioral components in which resources, perception, and behavioral responses interact as families attempt to successfully adapt to the disruptiveness caused in the family functioning (McCubbin, Sussman & Patterson, 1983). Because coping plays such a central part in family adjustment and because coping studies generally suggest ways to improve family behavior in response to stress, coping will be further elaborated on here.

Pearlin and Schooler (1978, 1982) in their landmark study on the structure of coping

surveyed 2300 people in the Chicago area regarding how they usually coped with general sources of stress from persistent life strains. Pearlin and Schooler concluded that coping serves three protective functions: (a) to eliminate or modify conditions giving rise to problems; (b) to perceptually control the meaning of experience in a manner that neutralizes its problematic character; and (c) to keep the emotional consequences of behavior within reasonable grounds.

Folkman and Lazarus (1980) suggested that Pearlin and Schooler's study was limited because respondents were asked how they usually coped with general sources of stress and not how they actually coped in specific situations. In contrast, Folkman and Lazarus, with their Ways of Coping Checklist plus interviews, sampled individuals an average of 13 times over a year's time and asked respondents what coping responses they used in response to specific stressful situations that respondents identified. As this study was conducted on only 100 community-residing men and women between the ages of 45 to 64, however, it was limited in both sample size and age range.

The Folkman and Lazarus study (1980) is based on a cognitive-phenomenological theory of psychological stress (Lazarus, 1966) which asserts that appraisal and coping are important in mediating stress. Appraisal has emerged as a critical factor in many of the coping studies (Billings & Moos, 1984; Dohrenwend & Dohrenwend, 1981; Fleming, Baum & Singer, 1984; Folkman, 1984; Folkman & Lazarus, 1985; Folkman & Lazarus, 1986; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen & DeLongis, 1986; Haan, 1977; Lavee & McCubbin, 1985; Lazarus, DeLongis, Folkman & Gruen, 1985; McCubbin, 1979; McCubbin, Cauble, & Patterson, 1982; Monat & Lazarus, 1977; Panzarine, 1985; Stensrud & Stensrud, 1983; Vitaliano, Russo, Carr, Maiuro & Becker, 1985). Lazarus proposed that appraisal has two levels: (a) primary appraisal which is the cognitive process through which an event is evaluated with respect to what is at stake; and (b) secondary appraisal, which evaluates what coping resources and options are available. This is similar to Hill's Factor C, the definition the

family makes of the event. The results of the Folkman and Lazarus study offered support for Lazarus' view that appraisal is a critical element in the coping process; how an event was appraised and its context turned out to be the most potent situational factors in accounting for coping variability. Thus, they found that situations in which it was felt that something constructive could be done or in which more information was needed generated higher levels of problem-focused coping, whereas situations which were felt must be accepted (e.g. illness) generated higher levels of emotion-focused coping. Other studies have supported the belief that appraisal is a critical element in the coping process (Folkman & Lazarus, 1985, 1986; Folkman, et al., 1986a; Lavee & McCubbin, 1985; McCrae, 1984; Vitaliano, et al., 1985). Indeed, Folkman, Lazarus, Gruen and DeLongis (1986) found that the more subjects felt they had at stake and the more they coped the poorer their health was, while the more mastery they felt, the better their health was. It must be noted, however, that although the relationships described here were significant statistically, none of the correlations exceeded .26 and, correspondingly, they did not account for significant portions of variance in somatic health status.

Two recent studies (Dohrenwend, Dohrenwend, Dodson & Shrout, 1984; Dohrenwend & Shrout, 1985) assert that including perception or appraisal as one factor in stress studies increases the problem of confounding between measures of stress and outcome, that is the chance that the same process is being measured in the independent and dependent variables. In addition, they question whether the individual's appraisal or perceptions and resultant coping with life events are determined by the objective characteristics of the event or by personal dispositions or by some complex interaction of the two.

The questions which Dohrenwend and his associates pose illustrate the very complex nature of coping. The results of many of the recent studies done on the nature of coping continue to find that coping is not a unidimensional behavior but rather one that functions at a multidimensional level. For example, Folkman and Lazarus (1980) found that both

problem-focused coping and emotion-focused coping were used in 98% of the stressful encounters studied (over 1300 separate encounters). The study population was characterized by variability rather than consistency in its patterns of coping. Pearlin and Schooler (1978) also found that individuals used a variety of ways of coping and concluded that the number and variety of responses individuals used might be more important in protection from emotional stress than any single coping element. In another study, Folkman and Lazarus (1985) again found that individuals cope in complex ways using a variety of problem-focused and emotional-focused ways of coping and also experienced seemingly contradictory states of mind and emotions at any given phase (e.g. threat and challenge). They also found that time of measurement was a critical factor in coping. In studying students' emotions and coping methods at three points of time from before an examination to after grades were received, they found changes in emotion, coping and social support as the study proceeded through the three stages. Because of the changes over time, they assert that coping must be a dynamic, unfolding process.

The complexity of the construct and the use of a variety of different methods to assess coping has resulted in conflicting results. One of the areas that this conflict has occurred has been in the area of gender differences in types of coping used. Several investigators (Folkman & Lazarus, 1980; Marotz-Baden & Colvin, 1986; Osipow & Doty, 1985; Zappert & Weinstein, 1985) found little evidence of gender differences in types of coping used. However, many other investigators have found that males and females differ in types of coping used. Pearlin and Schooler (1978) found that males made greater use of coping mechanisms. Burke and Weir (1979) noted that husbands were likely to use problem solving and talking with others as coping responses whereas their wives were more likely to use stress-reducing emotional responses. Astor-Dubin and Hammen (1984) found that women utilized both behavioral and cognitive types of strategies while men employed mostly cognitive strategies. Billings and Moos (1984) found that women used more emotional-discharge coping responses. In a study of medical students, Vitaliano, Russo,

Carr, Maiuro and Becker (1985) found that females had higher coping scores in all areas.

A few studies have been done exclusively on women's coping patterns. In a study focusing on corporate wives' coping patterns, Boss, McCubbin and Lester (1979) found that the wives coped with stress in three major ways: (a) by fitting into the corporate lifestyle, (b) by developing the self, and (c) by establishing independence. Although their sample size was small (100), their study offered empirical support for a premise more traditionally accepted by family therapists than by family sociologists: that is, that individual psychological variables need to be considered along with system variables in the development of family stress theory. In another study involving only women, Miller, Surtees, Kreitman, Ingham and Sashidharan (1985) found not only that the initial sample of 576 women differed in their use of 11 coping strategies, but that by using 5 types of maladaptive coping strategies, they could discriminate between those who were well and those who were psychiatrically ill at first interview. Patterson and McCubbin (1984) found that nondistressed Navy wives used a balanced coping strategy which reflected an above-average use of coping patterns.

There have been other studies done which have attempted to find coping strategies which were either adaptive or maladaptive. As stated, Miller et al. above found that the use of 5 maladaptive coping strategies (being angry with oneself, being angry with others, rumination, use of alcohol and use of tobacco) were used to a greater degree by those who were psychiatrically ill at first interview and by those who, in a follow-up analysis, became ill within the subsequent year even after taking life stress into account. They found no coping reactions which appeared to afford protection against illness inception.

Another study in which the relationship between coping styles and somatic and psychological outcomes was examined was done by Folkman, Lazarus, Gruen and DeLongis (1986). They found that planful problem solving was negatively associated with psychological symptoms whereas confrontive coping was positively associated with psychological symptoms as measured by the Hopkins Symptom Checklist. A study by

Billings and Moos (1984) supported these findings as they found that problem-solving and emotion-focused coping (similar to positive focus) were associated with less severe emotional and somatic dysfunction while emotional discharge (similar to confrontive coping and avoidance) were associated with greater dysfunction. This supported an earlier study, Mitchell, Cronkite and Moos (1983) in which depressed patients reported using more emotional discharge coping and less problem-solving coping than control subjects did. Similarly, Folkman and Lazarus (1986) found that compared with subjects low in depressive symptoms, those high in symptoms used more confrontive coping, self-control and escape-avoidance and accepted more responsibility as ways of coping. Likewise, Vitaliano, Russo, Carr, Maiuro and Becker (1985), using the Ways of Coping Checklist (WCC), found that depression was positively related to their Wishful Thinking Scale and negatively related to their Problem-Focused Scale. In another study using the WCC, Vingerhoets and Flohr (1984) found that those subjects rated as being Type A Behavior Patterns (TABP meaning those at higher risk for cardiovascular or somatic disease) were positively associated with their Problem-focused and Self-blame coping scales, but negatively associated with their Acceptance Scale.

The above studies do lend support to the Lazarus and Folkman (1984) contention that there are three ways in which coping can adversely affect an individual's health status. They believe that coping can influence the frequency, intensity, duration and patterning of neurochemical responses. In addition, they suggest that coping can affect health negatively when it involves avoidance through excessive use of alcohol, drugs and tobacco or when high risk activities are sought out. Lastly, they believe that some forms of coping such as denial can negatively affect health by impeding adaptive behavior.

One further approach to the study of the effects of coping was done by Mitchell, Cronkite and Moos (1983) who, in addition to studying the effects of both problem-solving and emotional discharge coping, also looked at the ratio of problem-solving coping divided by the sum of the amount of problem-solving and emotional-discharge coping. They felt

that since emotion-focused coping has been both positively and negatively associated with well-being, that individuals using higher proportions of problem-solving coping would be more likely to have fewer depressive symptoms. As they predicted, the subjects higher in depressive symptoms displayed a significantly lower proportion of problem-focused coping than did their spouses or control subjects. The difficulty with their approach was that their emotional discharge scale contained a variety of types of emotional-focused items, some which have been associated with increased symptoms and some which have been associated with decreased symptoms in past studies. Therefore, the effects of the two types of emotional coping would tend to negate each other or would make interpretation of the results difficult.

As can be seen from the above material, coping is a very complex construct which has been found to be multidimensional with changes occurring over time and across contexts. There are many variables which can affect the coping process including appraisal, stressor characteristics, environmental resources and personal characteristics. Many of the problems with research in the area of coping stems from the construct's complexity: some studies have failed to assess coping from a multidimensional perspective, others treat coping as a personality trait rather than a process neglecting to look at changes over time, some have special or unusual situations as stressors, others a variety of types of stressors. There have been a number of different instruments used to measure the construct and this has limited the generalizability of the studies. Even in the studies in which one process measure, the Ways of Coping Checklist, have been used, scales were developed for each study which makes the results difficult to compare. In addition, most of the studies have had correlational and/or cross-sectional designs. And finally, there have been criticisms of the types of statistical analyses used to explore the moderating as well as the main effects of coping on the effects of stress and strain (Finney, Mitchell, Cronkite & Moos, 1984; Stone, 1985) with disagreement as to appropriate interpretation of effects.

The Double ABCX Family Stress Model

Studies investigating the original ABCX model focused on such pre-crisis variables as coping, family resources and social support to account for differences in family vulnerability to a stressor event and to account for whether, and to what degree, the outcomes becomes a crisis for the family. As research accumulated (McCubbin & Patterson, 1982), it became evident that family behavior in response to a crisis is both complex and dynamic, thereby suggesting that the original conceptualization was too simplistic. Instead, family outcomes following a stressor and the resulting level of crisis are the by-product of multiple factors in interaction with each other (McCubbin & Patterson, 1982). Thus, McCubbin and Patterson have proposed a Double ABCX Model (see Figure 1) which uses Hill's original ABCX Model and adds the following post-crisis variables:

1. Pile-up (Factor aA): The accumulated life stressors and strains affecting a family. McCubbin and Patterson (1981) list five types of stressors contributing to pile-up: (a) the initial stressor event; (b) chronic strains on the family which result from persistent hardships resulting from the initial stressors; (c) normative family life changes and events which occur concomitantly, but seemingly independently of the initial stressor; (d) stressors resulting from coping behaviors used to cope with the crisis situation (e.g. drinking as an escape); and (e) ambiguity (e.g. boundary ambiguity or social ambiguity).

2. Resources (Factor bB): As in the original B factor, these are the key factors which affect a family's adjustment to stressors (personal resources, internal resources, social support & coping), but are perceived to be of two different types: (a) existing resources which are already available to the family; and (b) new resources developed in response to the new or additional demands resulting from the pile-up.

3. Family Perception (Factor cC): The family's perception of the most significant stressor event and the family's perception of its total "crisis situation" which includes pile-up, old and new resources, and estimates of what needs to be done to bring the family into

balance. McCubbin and Patterson (1982) assert that this perception is oriented towards redefining the crisis situation and plays a useful role in facilitating family coping and adaptation.

4. Coping: In contrast to the pre-crisis stage, coping in the post-crisis stage of the Double ABCX model, is seen as a bridging concept linking resources and perception with the family's behavioral responses to the pile-up.

5. Family Adaptation (Factor XX): This is the outcome of family efforts to achieve a new level of balance in family functioning which was upset by a family crisis. A balance must be reached between individual members and the family system, and between the family system and the community in order for the family to reach optimal level of adaptation. Family adaptation is viewed as a continuum ranging from bonadaptation (balance at both levels of functioning) to maladaptation (imbalance at either level or balance only by deteriorating family integrity level, individual or family unit development, or loss of independence). McCubbin and Patterson (1982) point out that family adaptation is a descriptive criterion because there have been no clearly operationalized set of measures and no instrument developed to measure all elements included in this concept.

A number of studies utilizing the Double ABCX have yielded results supporting the model. A longitudinal study of families who had a husband/father who was either a POW (prisoner of war) or MIA (missing in action) provided support for the Double ABCX hypothesis that family outcomes following the impact of a stressor are the by-product of multiple factors in interaction with each other (McCubbin & Patterson, 1981). In this study, 216 families were followed as they adapted to the extended absence (three to six years) of the husband/father. The families struggled not only with the initial stressor separation, but the associated hardships, additional life changes, ambiguity and problems caused by efforts at coping. The families drew on internal and external resources, ascribed acceptable meaning to their situation, and directed their coping efforts at multiple stressors simultaneously to maintain balance in the various dimensions of family life.

McCubbin and Patterson (1981) conducted a test of the Double ABCX Model by

surveying 217 families with a child with cerebral palsy. Questionnaires on the independent variables of family life changes (FILE) and parental coping (CHIP) were sent first, followed by a questionnaire on the criterion outcome variable of family functioning (FACES) two weeks after receiving the first. They hypothesized that, following the Double ABCX Model, families showing balance in family functioning would show a higher level of family life changes and a higher level of parental coping responses. Their results showed that two subscales, Family Financial and Business Strains and Family Illness Strains plus the Total Pile-up scores were significantly higher for families in the balanced group. Both mothers and fathers in the balanced group scored consistently higher on all three scales of the parent coping inventory (CHIP: Family Integration, Social Support and Medical Consultation).

The difficulties with the above study are partly with logic. It makes sense that the Balanced families with high scores on the Family Life Change Inventory would show higher coping levels (McCubbin & Patterson, 1981), but does not follow that all Balanced families would necessarily have a higher number of life changes. This would imply that, in order to be Balanced, families must have experienced a large number of stressful events. It is also confusing to have the level in family functioning as measured by FACES become the outcome criterion when in many of the Double ABCX studies it is treated as one of the family's resources (McCubbin & Patterson, 1982).

A larger scale test of the Double ABCX Model was done by Olson et al. (1983) who conducted a cross-sectional study on 1140 couples and 412 adolescents. The families were drawn from all regions of the country, were distributed in seven stages of the life cycle and were nearly all Lutheran church members (husbands 92 percent; wives, 94 percent; adolescents, 88 percent). Strong points of this study were that husbands and wives were tested for all families who participated (49% of families contacted did not participate) and that data on 412 adolescents was collected. Many family studies have been based on the results of just one family member. As Olson et al. (1983) discovered, the level of husband

and wife agreement was rather low, averaging .42 on the instruments measuring Marital Strengths and Life Events but dropping to a low of .20 for the total Family Coping Scale. Thus, to base family scores on just one member's scores would not truly represent a family consensus. Indeed, Olson et al. discovered an even lower agreement level between the adolescent children and their parents with amount of correlation ranging from .05 to .46. Their conclusion was that "overall, the low correlations certainly underscore the point that individual members have very discrepant perceptions about the families they live in" (p. 45). To explore this problem further, Olson and his associates looked at individual, couple mean, couple maximized, couple discrepancy and balanced family scores.

One point of confusion in the Olson et al. (1983) study is their use of the term high and low stress families when referring to families who have experienced a high number or a low number of stressful life changes. As explained in the definitional section, stress and stressor are two distinct terms.

In spite of the inherent difficulties in Olson et al.'s study, the data provided considerable support for the Double ABCX Model of Family Stress. Their results showed significant differences in family resources used by the high and low stressor groups. When using the family resources to predict the families experiencing high and low levels of stress, the level of predictability was high and accuracy ranged from 75 to 97 percent. They found that by using family strengths and resources, they could discriminate with an accuracy of 93 percent those families which were high and low in satisfaction. The four satisfaction measures all correlated between -.33 and -.40 with family stress; that is, families encountering a high level of stressors tended to be more dissatisfied. The relationships between high levels of satisfaction were not affected by the family's level of stressors. They speculated that high use of resources by satisfied families might prevent or reduce the number of stressors encountered. One interesting result encountered was that, though the Circumplex model predicts that satisfaction will be higher in the Balanced families, thus representing a curvilinear relationship (Olson & McCubbin, 1982), their

results showed a linear relationship with the highest levels of satisfaction associated with the highest adaptation and cohesion scores. Olson and his associates only superficially address this discrepancy (Broderick, 1984).

Other studies have covered one or more of the independent variables included in the Double ABCX Model and have provided additional support for various parts of the model (Boss, et al., 1979; McCubbin, et al., 1976a, 1976b; McCubbin, et al., 1974; Olson & McCubbin, 1982; Pratt, 1982; and Sprenkle & Olson, 1978). As stated, however, these studies were limited in that they examined only a few of the variables in the Double ABCX Model and did not study the interrelationships of all or most of the variables.

Several recent studies by McCubbin and his associates have incorporated most of the variables included in the Double ABCX Model (Lavee & McCubbin, 1985; Lavee, McCubbin & Patterson, 1985; McCubbin & Lavee, 1985; McCubbin, Patterson & Lavee, 1985). All of these studies were based on data obtained from more than 1000 Army families who were stationed in Germany, a study jointly sponsored by the Department of the Army and the University of Minnesota. Although it did not include coping, these studies covered all of the other variables in the Double ABCX Model. In addition, the relationships among some of the major variables were examined by using a structural equation modeling approach (LISREL VI program). Lavee et al. (1985) point out that this approach permits the analysis of causal relationships with latent (unobserved) variables and thus permits theory testing. It also allows the investigator to see whether the independent variables have direct or indirect effects on the outcome variable.

Results of the above studies offered support for the Double ABCX model as a whole. Results indicated that pile-up of life events negatively influenced the level of adaptation which meant that family members experienced less satisfaction with family life style, a lower sense of personal well-being and greater probability of health, emotional and relational problems in the family. The negative effect of pile-up of demands did appear to be buffered by family system resources and social support. A sense of coherence

(perception) did have a positive effect on the family's level of adaptation. Family system resources appeared to directly enhance family adaptation while social support indirectly influenced family adaptation by decreasing relocation strains and increasing coherence. They found that the ability for the military families to perceive the overall situation as coherent, that is, as one which "makes sense" was of great value to the family in facilitating its adaptation.

Olson et al. (1983) point out one of the difficulties inherent in most family stress and coping studies. They say that shifting from the individual level of coping to a family level is complex, saying that in addition to the individual's perspectives, the subjective reality of the family becomes an entity in its own right. They stress that coordination between family members emerges as a critical variable. They state, "since family coping is a collection of individual responses, it is reasonable to assume that some specific strategies may be more important than others, especially at given points in the life cycle and in connection to specific stressor events" (p. 140). Although they say family coping is a collection of individual responses, they used a scale (F-COPES) which asked questions about the family. For example, "When we face problems or difficulties in our family, we respond by..." Thus, it is difficult to know if the respondent is answering about himself or about any member of the family. Most of the family crisis studies which examined coping included this difficulty.

Walker (1985) while acknowledging that the ABCX model has been heuristic in the family stress area, asserts that it is inadequate because it does not attend to the multiple interdependent levels of the social system: individual, dyadic, familial, social network, community, and cultural/historical. He suggests that these levels are distinct but interrelated and are essential to an adequate model of family stress. Thus he believes that a contextual model would provide a more holistic perspective. Massey (1986) in his discussion of what comprises the family system also asserts that systems thinking, in ignoring personal dynamics, has also ignored a very important element of what he believes

a family to be. He suggests that a family is persons dynamically interdependent in context in that the individuals both create and are structured by a system. These arguments, in addition to Olson's findings of very low correlations between spouses on many of the instruments, underline the complexity and difficulty in examining families under stress.

Summary

In the review of the literature, the problems facing military families because of frequent relocations and other stressors have been described. Hill's ABCX and McCubbin et al.'s Double ABCX theories which serve to explain some of the variables which can influence whether a family will experience a successful adaptation to a stressor such as a family move have been outlined. Factors to be considered include pile-up, family resources such as marital and family strengths, cohesiveness, adaptability, social support and coping. Both coping and social support appear to be individual variables.

As noted, one of the central crisis-meeting resources is coping. Based on some of the findings cited, it is possible that the wife's individual coping skills will have an important influence on the level of family adjustment. The wife's role is especially crucial because of the inherent stressors in military life including temporary duties, remote assignments for the husband, and foreign assignments for the family.

A review of the relevant literature has suggested several methodological concerns which, if not considered, could cause the study to be problematic and results less valid. Past studies have had small samples assessed at a single point in time, little comparability, and little use of multivariate assessment. Few studies have investigated ways in which individual coping styles may affect family-level measures. Therefore, in this study, based on variables cited in the Double ABCX Family Stress Model, I intend to explore the relationship of both Air Force wives' and husbands' coping skills to their family's level of adjustment to the stress of moving will be explored, the instruments to be utilized will be those used by McCubbin & associates in their many family stress studies with the

exception of the Ways of Coping Checklist which has been used by Lazarus and associates in studies of individual coping. Families will be assessed at two different points of time after the move (in a cross-sectional, not a longitudinal design). In so doing, possible ways to intervene to alleviate the stress of moving for the military family will be sought while simultaneously seeking further empirical support for the Double ABCX Family Stress Model.

CHAPTER III

METHOD

Subjects

Target Population

The target population for this study was Air Force families who have moved within the past year. Those included in this target population were married Air Force personnel both with and without children. The population sample for this study consisted of the military families located at Hill Air Force Base (hereinafter referred to as HAFB) in Ogden, Utah. This site was chosen because the author had access to the base and because of its proximity to Utah State University. The base is comprised of approximately 6000 military personnel including approximately 700 officers. The base population is representative of all Tactical Air Command bases and closely representative of all Military Air Command and Strategic Air Command bases in terms of officers, senior enlisted officers and junior enlisted officers and airmen. Therefore, the findings can be considered generalizable to all Air Force personnel stationed at stateside Air Force bases.

Selection of Subject

To study families who had experienced a recent relocation to HAFB, it was necessary to obtain the permission of the Air Force. This was essential as the study possessed the potential of violating the Privacy Act of 1974. The Chief of Personnel at Hill A.F.B. attempted for six months to obtain an Air Force ruling. Air Force headquarters finally ruled that the base commander could give local permission and this permission was obtained in October of 1984 (See Appendix A). However, the permission was limited to this one commander and, as he was retiring in November of 1984, it was necessary to immediately proceed with the study. Because of this time factor, two research assistants were utilized to collect most of the data.

The Chief of Personnel provided a computer printout of families who had arrived at

HAFB within the last 15 months. The list provided name, rank, marital status, number of children, date of arrival at Hill A.F.B. , phone number and address . To obtain a stratified random sample which was closely representative of the percentage of officers, senior enlisted men and junior enlisted men, the names were first grouped according to rank and marital status (Table 1).

Next, the unmarried personnel were eliminated, leaving a total married sample of 491 subjects. Eliminating those who moved more than 12 months previously left a sample of 325 subjects. Of these subjects, officers made up 24% of the sample, senior enlisted 11% and junior enlisted 65%. These remaining subjects were placed into three categories: those who had arrived within (a) 1-4 months, (b) 5-8 months and (c) 9-12 months (Table 2).

Table 1

HAFB Personnel Grouped According to Rank and Marital Status Who Were Relocated between 5-31-83 & 9-30-84

	<u>Officers</u>	<u>Senior Enlisted</u>	<u>Junior Enlisted</u>
Total Married	116	56	319
Moved within 12 months	70	34	221
Moved more than 12 months	46	22	98
Divorced	8	2	16
Single	32	1	219
Widowed	0	1	0
Total per rank	156	60	554
Total Subjects			770

Since the sample was becoming rather small and since eliminating childless couples would effect only the junior enlisted ranks, the decision was made to include married personnel without children as well as those with children. This was done to reduce sampling error and to increase confidence that the sample would be representative of the population from which it was drawn (Borg & Gall, 1979).

Each of the remaining subjects within the three groups was assigned a number.

Using a random numbers table, 50 subjects were chosen from each group, 12 officers, 6 senior enlisted and 32 junior enlisted, so that the sample group was representative of the distribution of rank in the total sample.

Table 2

Rank and Parental Status of Married Subjects Moving
Within Past 12 Months

	<u>1-4 months</u>	<u>5-8 months</u>	<u>9-12 months</u>
<u>Married Officers</u>			
With Children	36	16	18
Without Children	0	0	0
<u>Married Senior Enlisted</u>			
With Children	16	10	8
Without Children	0	0	0
<u>Married Junior Enlisted</u>			
With Children	55	52	92
Without Children	8	9	5
Totals	115	78	123

Procedures

Each participant was contacted by mail approximately one week prior to receiving the questionnaires. As suggested by the Chief of Personnel at Hill A.F.B., this was done by a letter from the dissertation co-chairmen on Family Life letterhead. This letter briefly introduced the author, explained the purpose of the study and encouraged participation (See Appendix B). The group was split into two mailings due to the large number to be contacted. Packets containing the questionnaires and cover letters (See Appendix C) were mailed to the subject's homes. The cover letter again explained the purpose of the study, provided instructions for the participants and also explained that participation was strictly voluntary and that all information would be kept confidential. Included with the letter was a consent form and a section wherein those willing to submit to interviews and those who desired a brief summary report could so indicate. Confidentiality was strictly maintained

by coding each set of questionnaires. Names appeared only on the cover letters which were separate from the questionnaires.

For the first set of mailings, the subjects were instructed that they would be contacted by an assistant who would be contacting them to collect the forms and also to deliver an incentive bonus of \$10.00. Since several subjects instead mailed their questionnaires directly to the author and since problems were encountered with the first assistant, the second mailing included the request for subjects to mail their materials using enclosed address stickers if they were willing. They were then reimbursed for mailing costs at the same time the author sent the incentive bonus. They were also told that if this was inconvenient, they would be contacted by the research assistant. Follow-up contacts were conducted for those families who failed to respond to the first attempt to collect the forms.

Respondents. Of the 150 couples sampled, 95 couples plus 2 additional individuals (their spouses did not participate) completed the questionnaires, a participation rate of 64%. The 192 subjects included 96 (50%) females and 96 (50%) males. One male and one female returned questionnaires without the accompanying spouses. These questionnaires were used only in the factor analyses. Four of the 96 Air Force members were women. Of those responding, 26% were officers, 14% senior enlisted and 61% junior enlisted (of this group of junior enlisted, 18% were airmen to senior airmen and 43% sergeants to tech sergeants).

Nonrespondents. Brief telephone interviews were conducted with 90% of the nonrespondents to determine in what ways they differed from those who chose to participate as this type of non-response bias can influence interpretation of the results. Of those 54 couples (36%) who did not respond, 10 (6.7% of total sample or 19% of nonrespondents) had moved or could not be located by the author, and 44 (29.3% of total sample or 81% of nonrespondents) refused to participate. The following reasons were given by those who chose not to participate: 8 felt that the questions were too personal, 5 of the husbands were away on temporary duty (TDY), in 5 of the couples the husband was

or had been on remote duty for a year and they had never actually moved, 7 said they were too busy and did not have time to do the questionnaires, 4 had done the questionnaires but had thrown them away when they were not contacted soon enough, 4 said that they had mailed the questionnaires, but they were never received, 4 said they were not interested in participating in the study, 3 said that they had never received the questionnaires, 3 reported that they were separated from their spouses, and 1 felt that the questionnaires did not apply to them since they had just joined the service. Of those not participating, 67% were junior enlisted, 11% senior enlisted and 22% officers, similar to the original breakdown by rank.

Interviews were conducted with a subsample of 5 subjects from each group. They were picked randomly from those who indicated a willingness to participate on the information sheet after grouping those volunteers by rank to insure representation of each rank. The interviews were conducted by an assistant who followed a structured format (See Appendix D) and took approximately one hour per subject. The foci were on 1) attitudes toward the Air Force, 2) problems, benefits and emotions associated with the move and 3) ways that the interviewees had found to successfully adjust to moving.

Design

A correlational design was used to investigate the relationship between family satisfaction and the other variables identified in the Double ABCX Family Stress Model. Based on the literature, possible moderator variables included number of previous moves, years married, education, rank, number of children, ages of children, attitude toward the Air Force, number of months since the move, wife's employment and number of years in the service. Both McKain (1976) and Pedersen and Sullivan (1964) found that the mother's attitude was very important and thus another variable investigated was how the woman viewed moving to Hill.

The original intent of the study was to contrast families at three different lengths of time following the move. However, due to a one month time lag in receiving the printout

and to the fact that 52% of the sample of 50 moved in July, 32% in August and only 16% in September, only 4 questionnaires were received which indicated that they had moved less than 5 months previously. In addition, there was a difference in return rates between the three groups with 62% of the July, 69% of the August but only 38% of the group moving in September returning their forms. With these considerations in mind, the decision was made to split the sample into two groups, those who had moved less than six months before and those who had moved more than six months before answering the questionnaires and to use a cross sectional design to assess the families at two rather than three points in time.

Measures

Six areas of measurement were utilized in this study, including demographic characteristics of the sample, adaptability and cohesion, pile-up of stressors, general satisfaction, coping and social support. Additional instruments administered but not utilized in this study covered marital strengths, family strengths and family satisfaction. The questionnaires were assembled with the demographic sheet first and the Enrich inventory last and the rest assembled in random order to control for any possible effects caused by answering certain inventories first. The following sections describe the instruments used to measure these variables.

Demographic Characteristics

A number of demographic variables were measured in this study. They included age, number of years married, number of prior marriages, number of children, ages of children, education, rank, race, religion, number of previous moves, when the family moved to Hill A.F.F., whether they live on base or off base, attitude toward the last base, attitude toward coming to Hill, previous exposure to Utah, relatives or family living in Utah and wife's employment, both at the previous base and at Hill A.F.B. Appendix E presents the instrument used to obtain the demographic data.

Adaptability and Cohesion

These independent variables were measured using the Family Adaptability and Cohesion Evaluation Scales (FACES II) developed by Olson, Portner and Bell, (Olson, McCubbin, Barnes, Larsen, Muxen & Wilson, 1982). FACES II is a 30 item scale containing 16 cohesion items and 14 adaptability items (see Appendix F). There are eight subscales for the cohesion dimension: (a) emotional bonding, (b) family boundaries, (c) coalitions, (d) time, (e) space, (f) friends, (g) decision-making, and (h) interest and recreation. There are six subscales for the adaptability dimension: (a) assertiveness, (b) leadership, (c) discipline, (d) negotiation, (e) roles, and (f) rules. Construct validity was determined by expert judges who assigned items to cohesion or adaptation dimensions. Factor analyses were done separately for the cohesion and adaptation items the these factor analyses produced the 14 subscales listed above with factor loadings ranging from .61 to .10.

Reliability was within acceptable limits; Total Scale: Internal Consistency (Alpha) = .90, Test-retest = .84; Cohesion subscale : Alpha = .87, Test-retest = .83; Adaptability Subscale = Alpha = .78; Test-retest = .80.

Although Olson now recommends administering the measure twice, once so members may rate how they currently perceive their family and once for how they would like it to be, this study used only the satisfaction with present levels of adaptation and cohesion.

Pile-up of Stressful Events

This independent variable was measured using the Family Inventory of Life Events and Changes (FILE) developed by McCubbin, Patterson and Wilson (in Olson, et al., 1982). This instrument has 72 items which are separated into 9 categories of life events: intra-family strains, marital status, pregnancy and childbearing strains, illness and family care strains, losses, transitions "in" and "out", and family legal violations (See Appendix G).

McCubbin (in Olson, et al., 1982) explained that factor analysis using an oblique

rotation was used to determine the nine underlying dimensions with factor loadings ranging from .88 to .12. He indicated that one limitation of the factor analysis was the wide variance in the frequency of the items which affected the distribution, and, in turn, the factor structure. McCubbin said that some items which dropped out due to low frequency count (e.g. death in family) were added to the final scale.

Concurrent validity was tested by correlating FILE with the Family Environment Scales developed by Moos (Olson, et al., 1982). As hypothesized, a pile-up of life changes correlated negatively with the desirable dimensions of the family environment, Cohesion (-.24), Independence (-.16) and Organization (-.14) and positively with the undesirable dimension of Conflict (.23).

Predictive validity was assessed by correlating the scores on FILE with the health status of 100 children with cystic fibrosis (CF). In this study, (McCubbin, McCubbin, Patterson, Cauble, Wilson & Warwick, 1983), a pile-up of family life changes was negatively correlated with a CF child's pulmonary functioning.

To obtain a measure of FILE's reliability, Cronbach's Alpha was computed on a sample of 2740. The overall scale reliability was .81 with subscale scores varying from .73 to .30. Test-retest reliability was .80 for the total scale. Because the subscales are less stable, McCubbin and his associates recommend that only the total score be used. Because for this study, only the total score on FILE was used, a factor analysis was not done based on this study's population.

General Satisfaction

As did Olson and his associates, this study considered family satisfaction to be a primary outcome variable as it reflects the mood and happiness with the overall functioning of the family (Olson et al., 1983). They based their decision partly on the work of French, Rodgers and Cobb (1974) who asserted that adjustment is the fit between an individual and his or her environment as he or she perceives it. The Quality of Life scale measures satisfaction in 11 areas: family life, friends, extended family, health, home, education,

leisure, religion, mass media, financial well-being, & neighborhood and community.

Factor analysis with varimax rotation on the total scale resulted in the delineation of 12 factors with factor loadings ranging from .91 to .22. As reported by Olson and Barnes (1982), generally the factor analysis supported the initial conceptual structure of the scale with only a few exceptions, for example some conceptual scales merged to define a single factor. Internal consistency reliability (alpha) was .92 and test-retest was .65. (See Appendix H).

Coping

The Ways of Coping Checklist, developed by Folkman and Lazarus, (Folkman, 1979) and revised by them in 1983, was used to measure coping (See Appendix I). It is a 66 item checklist with a 4-point Likert scale format. It is designed to measure coping process and to elicit information about the strategies a person uses to deal with a specific stressful encounter. The instrument contains a broad range of cognitive and behavioral strategies people use to manage stressful situations. The Ways of Coping Checklist measures eight types of coping: Problem-focused Coping, Wishful thinking, Distancing, Emphasizing the positive, Self-blame, Tension-reduction, Self-isolation, and Seeking social support. At the end of the checklist there are four questions designed to elicit information about how the situation was appraised.

Construct validity was established through factor analysis with oblique rotation which yielded a 6 factor solution with factor loadings ranging from .78 to .47. Five of the eight scales were constructed empirically using factor analysis: problem-focused coping, wishful thinking, detachment, seeking social support and focusing on the positive. A sixth factor was divided to make three rationally-created scales: self-blame, tension-reduction, and keeping to self.

To obtain a measure of reliability, Cronbach's Alpha was computed on a sample of 324. Alpha scores ranged from .85 for the problem-focused coping subscale to .59 for the tension-reduction subscale.

Social Support

This was measured using McCubbin's Social Support Scale as outlined in his proposal for an Army Family Study. (See Appendix J). The Social Support Scale was later named the Social Support Inventory (SSI) and was developed by McCubbin, Patterson, Rossman and Cooke in 1983 (Grochowski & McCubbin, 1987). It listed 11 sources of social support: spouse or partner, children, other relatives, close friends, co-workers, community or neighborhood groups, church or synagogue, professional or service provider, special organized groups, and television, radio or newspapers and spiritual beliefs. The five questions reflected the five aspects of social support: emotional, esteem, network, appraisal and altruistic supports. The instrument used in this study varied a little in the wording and had the added source of social support category of Air Force Command. The inventory used for this study differed from the SSI in that it had a yes or no format while the SSI also discriminates between amount of support received by including two choices for the yes category, "yes" and "yes, a lot".

The construct validity of the SSI was assessed and supported by a systematic literature review, 22 ethnographic interviews and completion of the inventory by the 22 subjects participating in the interviews. A modification of the SSI was made by Grochowski and McCubbin (1987) to assess the social supports relative to entry level college freshman. This instrument, named the Young Adults Social Support Inventory (YA-SSI) determined construct validity through factor analysis. The factor analysis with a varimax rotation resulted in the formation of 11 factors (subscales). These 11 factors had factor loadings which ranged from .91 to .27 with a mean of .70. The scales had alpha reliabilities of .95 to .78. The factor structure supported the original conceptualizations.

The SSI test-retest reliability was reported at .81. The YA-SSI had two measures of reliability; overall internal reliability (Cronbach's Alpha) was .89 and test-retest reliability was .90.

Data Analysis

The results from each questionnaire were coded and punched onto 3.5 inch microfloppy disks on a Macintosh Personal Computer. The data were then transferred to the Cyber computer at the University of Washington Academic Computer Center. From there the files were transferred to the Seattle V. A. Hospital Medical Center. For all but the two largest factor analyses, the descriptive and inferential statistics were calculated at the Seattle V. A. Medical Center utilizing an IBM-PC and the Statistical Package for the Social Sciences (SPSS-PC). The two largest factor analyses were done on the Cyber computer at the University of Washington.

The data were checked to rule out missing data and invalid questionnaires. The method recommended by the test's developers was placing 3's for missing numbers but this was decided against because 3 was not a neutral score for the tests in question and also this method gave lower average scores to the childless couples. Instead, for those tests missing data (especially problematic were the childless couples), scores were prorated based on the available data.

The data were analyzed initially to provide descriptive demographic data. The three groups of A.F. personnel by rank were described separately as were the spouses of these members.

The items on the Ways of Coping Checklist, FACES II, Social Support and Quality of Life questionnaires were factor analyzed to provide scales having construct validity for this population. In the event that the initial factor analysis, using a principal components analysis with varimax rotation, produced too many factors to interpret meaningfully (this was done by using the default option in SPSS-X which is the K1 method in which components with eigenvalues greater than 1.0 are retained), the Scree Test (Cattell, 1966) was used. In the Scree Test, the eigen values are plotted, a straight line is fitted through the point at which a break point occurs, and those falling above the line are retained. Zwick and Velicer (1986) found the Scree Test to be more accurate and less variable than

the K1 method.

After creating factor scales for these measures, discrepancy and mean scores were figured on the FACES II and Quality of Life questionnaires. Individual scores were used on the Ways of Coping and Social Support questionnaires. The instrument measuring pile-up, FILE, was used only with a total score as suggested by its authors. Perception (Factor c) was measured by a combination of questions addressing the following variables: number of previous moves, attitude toward move, time knowing about move, previous exposure to area, number of social contacts known, attitude toward A.F., appraisal of what coping measures could be used to help with the move.

Before data analysis began, the author examined the data to decide whether to use parametric or nonparametric methods for statistical analysis. Traditionally, parametric methods are chosen if data meet the assumptions of interval or ratio data, homogeneity of variance, normal distribution of scores, random selection of subjects, and random assignment to treatment conditions (Hinkle, Wiersma, & Jurs, 1979). Recent investigations by social science researchers into the relative effects of violation of the above assumptions, have prompted many experts to advocate using parametric statistics even when the assumptions cannot be fully met (Boneau, 1972). They have stressed that valuable information can be lost when distribution-free methods are used for analysis. They conclude that parametric statistical methods can be safely employed when the following conditions are met: (a) the number of observations in each cell is greater than 15, (b) the distributions of the various comparison groups are similar, even though they may be skewed, and (c) the number of observations in each cell is equal. The above factors were considered as was the distribution and shape of data for each of the measures. In addition, the homogeneity of variance between the male and female subjects was checked. As these factors were all satisfactory, it was decided to proceed with parametric statistics.

Hypothesis Tests

The statistical technique of multiple regression was chosen to test both Hypotheses 1

and 2 for a number of reasons. Many different variables are believed to affect the family outcome following a stressor and thus it was necessary to utilize several independent variables. It is also important to consider how to combine all of these pieces of information into a single best prediction of outcome. As Harris (1975) points out, "It is widely known that the predictors having the highest correlations with the criterion variable when considered singly might contribute very little to that combination of the predictor variables which correlates most highly with the criterion" (p. 5). A series of univariate significance tests might be used, however, as the number of individual tests increases, the probability of having at least one of the tests produce a significant result through nothing but chance variation increases rapidly as the number of tests increases. Evidence on multivariate techniques so far suggests a similar degree of robustness (insensitivity to any but gross departures from normality and homogeneity assumptions) as the common univariate tests. Harris suggests using the technique of Multiple Regression Analysis in situations involving one outcome variable and 2 or more predictor variables.

Hypothesis 1 was tested by using stepwise multiple regression with Quality of Life as the dependent variable and FACES, Social Support, Coping, FILE and Perception as independent variables. Hypothesis 2 was tested by using multiple regression using forward variable selection of the above independent variables after controlling for the variance accounted for by age, sex, education, number of children, age of children, number of previous moves, rank, number of years married, attitude toward leaving prior base, attitude toward coming to Hill AFB, number of years in the service, and wife's employment. This was done following the example of Everitt and Dunn (1983) in their construction of a multiple regression model when the independent variables are a mixture of quantitative measurements and qualitative factors using either backward elimination or forward selection.

Hypotheses three and four were tested through analysis of variance using a Sex by Time of Move (2 X 2) factorial design. This was done separately for each of the main

measures.; namely, FACES, Quality of Life, Ways of Coping Checklist (each factor considered separately, and Social Support (both total and each of the separate factors was considered).

CHAPTER IV

RESULTS

The results of this study are presented in six major divisions namely: (a) demographic characteristics; (b) factor analyses; (c) the test of hypothesis 1 with separate results presented for husbands and wives; (d) the test of hypothesis 2 with separate results presented for husbands and wives; (e) the tests of hypotheses 3 and 4 including FACES, Quality of Life, Social Support and Coping and (f) a summary of the major findings.

Demographics

The overall sample will be described in this section. A breakdown first for Air Force personnel by rank and then for the spouses is included in Appendix N. In addition, Table 3 provides a breakdown of the descriptive statistics for the overall sample, for each of the ranks and for the spouses.

Basic Information: Age-The proportions of the age ranges represented in the overall sample included 9% under age 21; 49% 21-30; 39% 31 - 40; and 3% who were 41 or older. Birthplace- Of the 192 subjects, 90% had been born in the U.S., 5% were born in the Far East, 2% in Europe and 3% in some other area. Race - The majority (84%) of the respondents were Caucasian while 5% were Black, 4% Oriental, 2% Hispanic, 2% American Indian and 3% some other race. Religion - The religious preferences included 30% Catholic, 33% Protestant, 17% Mormon, 0% Jewish and 20% other. Education- The educational levels of the subjects ranged from 7% who had less than 12 years of education, 27% with a high school level, 45% with some college, 9% with a bachelor's degree and 12% with graduate training. Health - The general health of the subjects was for the most part good with 47% rating their health as excellent, 49% as good, 3% as fair and 1% as very poor.

Table 3

Descriptive Statistics for Overall Sample, Rank with Officers, Senior Enlisted and Junior Enlisted Members and for Spouses

Characteristic	Overall Sample**	Officer	Senior Enlisted	Junior Enlisted	Spouse
<u>Total</u>	192	24	13	58	95
<u>Age</u>					
Under 21	17	0	0	5	12
21 - 30	95	6	0	42	46
31 - 40	74	15	12	11	35
41 +	6	3	1	0	2
<u>Birthplace</u>					
United States	172	24	13	57	76
Far East	10	0	0	0	10
Europe	4	0	0	0	4
Other Area	6	0	0	1	5
<u>Race</u>					
Black	9	0	0	5	3
Oriental	8	0	0	0	8
Hispanic	4	0	0	3	1
American Indian	4	1	0	2	1
Caucasian	162	23	13	47	78
Other	5	0	0	1	4
<u>Religion</u>					
Catholic	57	9	4	15	29
Jewish	0	0	0	0	0
Protestant	64	8	7	17	30
Mormon	32	7	0	10	15
Other	39	0	2	16	21
<u>Education</u>					
Less than 12 years	14	0	0	3	11
High School	51	0	1	23	27
Some College	87	2	10	30	44
BA Degree	17	6	1	1	8
Graduate Training	23	16	1	1	5
<u>General Health</u>					
Very Poor	1	0	0	0	1
Poor	0	0	0	0	0
Fair	6	0	1	0	5
Good	95	5	9	29	52
Excellent	90	19	3	29	37
<u>Years In Service for Husband</u>					
0 - 4 Years	36	1	0	17	18
5 - 10 Years	75	9	0	29	37
11 - 15 Years	33	7	2	6	16
16 - 20 Years	32	6	6	5	15
20 + Years	13	1	5	0	7
Not Applicable	3	0	0	1	2

Characteristics	Overall Sample	Officer	Senior Enlisted	Junior Enlisted	Spouse
<u>Marriage</u>					
0 Previous Marriages	163	23	9	48	82
1 Previous Marriage	25	1	4	8	12
2 Previous Marriages	4	0	0	2	1
3 + Previous Marriages	0	0	0	0	0
<u>Years in Present Marriage</u>					
Under 2 Years	41	1	0	19	20
2 - 5 Years	50	4	1	20	25
6 - 10 Years	47	6	3	15	23
11 - 15 Years	32	7	5	3	16
16 + Years	22	6	4	1	11
<u>Number of Children</u>					
0 Children	44	3	1	18	22
1 Child	41	3	2	15	21
2 Children	60	6	8	16	29
3 Children	28	7	0	7	13
4 Children	11	3	1	1	6
5 + Children	8	2	1	1	4
<u>Children Ages 0 - 4</u>					
Yes	91	12	2	31	44
No	101	12	11	27	51
<u>Children 5 - 12</u>					
Yes	89	16	7	20	44
No	103	8	6	38	51
<u>Children 13+ At Home</u>					
Yes	36	7	7	3	19
No	156	17	6	55	76
<u>Number of Previous Moves</u>					
0 Moves	19	0	0	5	14
1 Moves	22	0	0	11	11
2 Moves	35	3	0	13	20
3 Moves	17	2	0	7	8
4 Moves	25	3	0	8	14
5 + Moves	74	16	13	15	28
<u>How Long Ago Subject Moved</u>					
Less than 6 Months Ago	93	15	5	26	46
More than 6 Months Ago	99	9	8	32	49
<u>Prior Notice Before Moving</u>					
Less than 1 Month	25	3	0	10	12
2 - 3 Months	37	4	1	13	19
4 - 6 Months	86	11	8	22	19
Over 6 Months	43	6	4	13	19

Characteristics	Overall Sample	Officer	Senior Enlisted	Junior Enlisted	Spouse
<u>Previous Exposure to Utah</u>					
None	101	9	6	32	53
Had Visited Utah	39	8	3	10	17
Had Lived in Utah Before	50	7	4	15	24
<u>Familiar People in Utah</u>					
No one	91	8	3	30	49
Close Relatives	41	10	8	12	24
Distant Relatives	4	1	0	1	2
Friends	55	5	2	15	19
<u>Location of Home in Utah</u>					
On Base	61	7	6	18	30
Apartment	42	1	0	19	21
Rental House	26	1	1	10	13
Own House	63	15	6	11	31
<u>Attitude- Leaving Prior Base</u>					
Very Negative	10	0	1	5	4
Negative	7	0	0	3	4
Mixed Emotions	68	12	5	12	37
Neutral	14	0	0	7	7
Positive	62	8	6	20	28
Very Positive	30	4	1	11	14
<u>Attitude- Moving to Hill AFB</u>					
Very Negative	12	0	0	6	6
Negative	11	0	0	3	8
Mixed Emotions	46	3	2	12	27
Neutral	19	0	2	8	9
Positive	73	16	8	21	28
Very Positive	30	5	1	8	16
<u>Attitude Toward Air Force</u>					
Very Good	59	11	3	16	28
Good	85	9	7	26	42
Fair	33	4	2	10	17
Poor	12	0	1	5	6
Very Poor	2	0	0	1	1
<u>Emotional Adjustment to Move</u>					
Very Good	68	9	5	19	33
Good	68	11	5	24	28
Fair	41	4	3	12	22
Poor	11	0	0	2	9
Very Poor	3	0	0	1	2

Characteristics	Overall Sample	Officer	Senior Enlisted	Junior Enlisted	Spouse
<u>Wife's Work Before Move</u>					
Full Time	48	3	4	19	21
Part Time	55	8	6	14	27
Unemployed	58	9	2	17	29
Not Applicable	31	4	1	8	18
<u>Wife's Work After Move</u>					
Full Time	43	2	2	17	21
Part Time	44	6	3	14	21
Unemployed	83	13	6	23	40
Not Applicable	22	3	2	4	13

** The Overall Sample category includes the one husband and one wife who sent in questionnaires without accompanying spouses'. The other categories do not include these two.

Marriage & Family: Marriage- The majority (85%) were in their first marriages with 13% having been married once before, and 2% having been married twice before. The number of years in the present marriage included 21% married under 2 years, 26% 2-5 years, 24% 6-10 years, 17% 11-15 years and 11% 16 years or over. Children- The subjects had a mean of two children with a range of 0 to 8. Of subjects with children living at home, 47% had children under 4, 46% had children between 5 and 12 and 19% had children over 13 at home.

Information about move & home: Previous moves - Most of the subjects had moved several times before with 39% reporting 5 or more moves, 13% 4 previous moves, 9% 3 moves, 18% 2 moves, 11% one move and 10% 0 previous moves. Time of move- About half (48%) had moved less than 6 months before the study and slightly more (52%) had moved more than 6 months before. Prior Notice - About half (45%) of the subjects reported they had received notice of the move 4-6 months before moving, with 13% reporting they received under one month's notice, 19% receiving 2-3 months's notice and 23% receiving over 6 month's notice. Exposure to Utah - About half (53%) of the subjects had had no previous exposure to Utah, 20% had visited Utah before and 26% had lived in Utah previously. Location of home - About a third (32%) of the subjects live on base, 22% live in apartments, 14% rent houses and 33% own their own homes.

Attitudes About half of the sample felt positive or very positive about leaving their prior base (48%) and about moving to Hill A.F.B. (54%). Seven percent felt neutral about leaving their previous base, 36% had mixed emotions, and 9% felt negative or very negative. Similarly, 10% felt neutral about coming to Hill, 24% had mixed emotions and 12% had a negative or very negative attitude. Most (76%) of the subjects reported a very good (31%) or good (45%) attitude toward the Air Force, while 17% reported a fair attitude, 6% a poor attitude and 2% a very poor attitude.

Adjustment & Wive's Work: Attitude- Most of the subjects reported a good emotional adjustment to the move with 36% reporting very good adjustment, 35% good

adjustment, 21% fair adjustment, 6% poor adjustment and only 2% reporting very poor adjustment. Wives working-About half (54%) of the wives worked full or part time before the move with 45% reporting full or part time work after the move. The rest were either unemployed or full time housewives.

Factor Analyses

Factor analyses were conducted on the Ways of Coping Checklist, FACES II, Social Support and the Quality of Life questionnaires to provide scales which had construct validity for this population. Each of these analyses will be presented separately.

Ways of Coping Checklist (WCCL)

Vitaliano et al. (1985) pointed out that the original scales on the WCCL were developed by factor analyzing 68 items on only 100 subjects between the ages of 45 to 64 and, because of this, they expressed concerns regarding the stability of the factors as well as the clinical generalizability and construct validity of the scales. To examine the reproducibility of the factor structure of the original and/or Vitaliano's scales and to determine underlying coping patterns or scales, a principal components analysis with varimax rotation was performed on the 66 items of the Ways of Coping Checklist. The principal components analysis resulted in 19 factors with an Eigen value greater than 1. These 19 factors accounted for 65.5% of the variance. Because the author felt that this was too large a number of factors to be interpreted easily, the Scree test, as discussed in the Data Analysis section of Chapter 3, was used to narrow the number of factors to 8. These eight factors accounted for 43.5% of the variance. After varimax rotation, the items were ranked on each factor according to the magnitude of their highest loading. The loadings ranged from a high of .76 to a low of .01 with the mean being .52. Items which did not load clearly on one factor, which had loadings under .35, or which were endorsed by under 10 individuals were eliminated. This eliminated 11 items leaving 8 factors and 55 items. The factors were named by examining the items which loaded the highest on each

factor and extracting the property that these items had in common. Table 4 summarizes the scales that resulted from the items loaded on Factors 1 to 8. Alpha scores ranged from .81 for the Problem-focused Coping subscale to .32 on the Reframing subscale. Because the Reframing subscale has only two items and because of its unreliable alpha, interpretation of results involving this scale must be made with great caution. These eight factors were used to create the scales used in the data analyses.

Comparing these scales to those obtained by Folkman and Lazarus (1980) and Vitaliano et al. (1985), there was some agreement with both scales although the scales derived from this study demonstrated a greater concurrence with those of Lazarus than with Vitaliano. The items in common are noted in Table 5. Several of the items in Scales 7 and 8 were contained in other scales in both the Lazarus and Vitaliano studies. Scales 7 and 8 are the weakest, especially Scale 8 which had only 2 items. Further evidence for the validity of the scales lies in the fact that, for the most part, those coping strategies which would be considered maladaptive (Self Focus, Displacement/Denial, Wishful Thinking, Minimization) were separate from those which would be considered adaptive (Problem-focused, Positive Focus/Faith, Social Support, Reframing) and were primarily inversely correlated with satisfaction. In examining Pearson r correlations of each of these variables to the dependent variable of Satisfaction, for the women, Displacement/Denial and Wishful Thinking were both significantly inversely related to satisfaction ($p < .01$) and for the males Minimization was significantly inversely related ($p < .01$). The obtained set of factors appears to be theoretically consistent and thus provides support for the construct validity of the WCCL.

Table 4

Varimax Rotated Factor Matrix of the Ways of Coping Checklist (WCC)

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²	
Problem-focused (F1) (13 items)										
16% of variance, mean loading of .49										
48	Draw on past experiences, was in similar situation before	.61	-.05	.12	.04	.06	-.09	.20	-.06	.55
49	Know what has to be done, doubling effort	.61	.20	.20	.16	-.16	.08	.06	.04	.61
8	Talk to someone to find out more about situation	.57	.23	.02	.22	.05	-.17	.02	-.01	.58
2	Try to analyze problem to understand it better	.56	.20	-.04	-.06	.04	.13	-.06	.21	.64
31	Talk to someone who can do something concrete about problem	.52	.11	-.05	.34	-.10	-.01	-.02	-.24	.69
26	Making a plan of action and following it	.49	.27	.04	.13	-.22	.01	.08	-.01	.65
10	Try not to burn my bridges but leave things open	.49	.10	-.07	.00	.04	.14	-.12	.18	.57
64	Try to see things from other person's point of view	.46	.21	.31	.16	-.09	.10	-.08	-.08	.69
7	Try to get person responsible to change his mind	.44	.10	-.06	.08	.37	-.22	-.08	-.34	.62
35	Try not to act too hastily	.43	-.07	.15	.16	.05	.06	.06	-.01	.57
5	Bargain or compromise to get something positive from situation	.42	.16	-.24	-.03	.20	.09	.12	.30	.62
52	Come up with a couple of different solutions to problem	.41	-.00	.19	.36	.06	.21	.12	-.16	.61
62	Go over in my mind what I will say or do	.40	.22	.35	.11	.24	.22	-.04	-.22	.61
Positive Focus/Faith (F2) (10 items)										
6.9% of variance, mean loading of .54										
36	Find new faith	-.02	.70	.24	-.00	.05	.01	-.05	.03	.67
38	Rediscover what is important in life	.20	.69	-.03	-.08	.08	.09	.01	.00	.64
60	I pray	-.02	.63	.20	.09	-.08	.06	-.04	-.02	.62
23	Changing or growing as a person in a good way	.20	.60	.02	.07	-.07	.04	.09	-.01	.64
20	I am inspired to do something creative	.09	.56	.02	.38	-.03	.01	.26	.02	.66
39	Change something so things will turn out all right	.34	.53	.12	.11	.15	.12	.08	-.02	.67
25	Apologize or do something to make up	.12	.45	.14	.22	.14	.11	-.14	-.06	.65
30	I'll come out of experience better than when I went in	.35	.45	-.10	.17	.05	.01	.27	-.06	.69
19	I tell myself things that help me to feel better	.08	.43	.03	.23	-.04	.31	.10	.18	.55
18	Accept sympathy or understanding from someone	.11	.36	-.02	.34	.09	.23	-.10	.13	.63

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²
<u>Self Focus (F3) (7 items)</u>									
4.2% of variance, mean loading of .50									
43	-.02	.06	.76	-.00	.08	.05	.18	-.03	.69
56	.00	.33	.57	.15	.17	.08	-.03	.04	.71
61	.17	.18	.50	.05	.22	.18	.11	.02	.62
54	.23	.09	.46	-.09	-.25	.26	.43	.01	.68
65	.16	.08	.42	.08	.04	.12	-.01	.15	.64
37	.31	.20	.39	.11	-.08	-.04	-.06	.24	.71
50	-.01	.18	.38	.13	.28	.03	.22	-.31	.56
<u>Social Support (F4) (4 items)</u>									
3.9% of variance, mean loading of .59									
45	.13	.21	-.03	.70	-.04	-.10	.13	.18	.79
28	.16	.17	.11	.67	-.10	.15	-.01	.14	.70
42	.35	.29	-.02	.58	.09	.01	.00	-.07	.70
32	.14	.13	.18	.42	.11	.10	.09	-.25	.58
<u>Displacement/Denial (F5) (8 items)</u>									
3.5% of variance, mean loading of .47									
9	.24	.01	.07	-.02	.55	.22	-.15	.01	.77
47	.05	-.03	.30	.31	.53	.07	.03	.00	.62
3	.01	.13	-.14	-.05	.47	.15	.22	.18	.72
21	-.07	.29	.06	-.02	.47	.23	.24	-.09	.67
33	.02	.01	.07	-.01	.44	.04	-.07	-.19	.71
16	-.07	-.06	-.04	.04	.43	.12	.07	-.01	.65
13	-.03	.08	.08	-.04	.43	.03	.39	.26	.64
12	-.11	-.01	.24	.24	.41	.14	.08	.40	.67
<u>Wishful Thinking (F6) (7 items)</u>									
3.1% of variance, mean loading of .52									
57	-.01	.08	.05	-.01	.41	.66	-.01	-.04	.72

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²	
<u>Wishful Thinking (F6) (7 items)</u>										
3.1% of variance, mean loading of .52										
57	Daydream or imagine a better time or place than I'm in	-.01	.08	.05	-.01	.41	.66	-.01	-.04	.72
58	Wish that situation would go away or somehow be over with	-.10	-.04	.11	-.00	.20	.63	.06	-.07	.64
59	Have fantasies or wishes about how things turn out	.02	.09	.01	.08	.24	.59	.05	.05	.64
24	Waiting to see what will happen before doing anything	.20	.03	-.07	.28	.07	.48	.03	-.32	.64
55	Wish I can change what is happening or how I feel	.08	.03	.31	.12	.25	.47	.16	.00	.61
51	Make promise to self that things will be different next time	.18	.23	.29	.29	.10	.44	.04	-.17	.66
53	Accept it, since nothing can be done	-.12	.13	.25	-.07	-.05	.38	.16	.30	.47
<u>Minimization (F7) (4 items)</u>										
3.0% of variance, mean loading of .58										
44	Make light of situation, refuse to get too serious	-.02	.01	.43	-.02	-.04	.04	.65	.04	.72
34	Take a big chance, do something risky	.15	-.09	.09	.14	.19	-.09	.58	-.26	.77
11	Hope a miracle will happen	-.11	.11	-.03	.21	.19	.20	.58	.25	.70
41	Don't let it get to me, refuse to think too much about it	.34	.10	-.01	-.09	.09	.17	.48	.07	.79
<u>Refraining (F8) (2 items)</u>										
2.9% of variance, mean loading of .48										
4	I feel that time will make a difference, wait	.14	.11	.18	.05	.23	.38	.06	.52	.69
15	Look for the silver lining, look on the bright side of things	.21	.27	.04	.09	-.09	-.10	.19	.44	.63
1	Just concentrate on what I have to do next	.26	.12	-.13	.02	-.07	.32	.09	.18	.65
14	I try to keep my feelings to myself	-.09	.13	.33	-.23	.35	-.14	.15	-.03	.69
17	I express anger to the person(s) who caused the problem	.19	.06	.21	.43	.43	-.11	-.18	.10	.71
22	I'm getting professional help	-.03	.30	.01	-.03	.05	.17	.10	-.54	.62
27	I accept the next best thing to what I want	.23	.32	.24	-.01	-.03	.36	.03	.00	.57
29	Realize I brought the problem on myself	-.03	.04	.05	.39	.12	.23	.40	-.03	.75
46	Stand my ground and fight for what I want	.47	.03	.23	.44	.10	.02	-.00	-.04	.65
<u>Eigenvalues (after rotation)</u>										
10.58 4.54 2.74 2.58 2.31 2.07 1.95 1.92										
<u>Alpha (reliability coefficients)</u>										
.81 .81 .69 .74 .65 .72 .60 .32										

Table 5

Comparison of Scales and Item Numbers in Common on Ways of Coping Checklist Obtained by Lazarus, Vitaliano and This Study.

<u>Scale Name</u>	<u>(Item numbers in common)</u>	
	<u>This Study</u>	<u>Lazarus</u> <u>Vitaliano</u>
Problem-focused	Problem-focused (#2,26,35,48,49,52,62,64)	Problem-focused (#5,10,26,35,49,52)
Wishful Thinking	Wishful Thinking (#55,57,58,59)	Wishful Thinking (#55,57,58,59)
Social Support	Seeking Social Support (#28,42,45)	Seeks Social Support (#42,45)
Positive Focus/Faith	Focusing on the Positive (#20,23,38)	No Such Scale
Self Focus	Keep to Self (#43)	No Such Scale
Displacement/Denial	Tension-reduction (#33)	Avoidance (#13,16,21,33)
Minimization	No Such Scale	No Such Scale
Reframing	No Such Scale	No Such Scale

FACES II

A factor analysis was conducted on the thirty items of the FACES II questionnaire in which the spouses rated the family as they now perceive it. The principal components analysis resulted in 8 factors with an Eigen value greater than 1 with these factors accounting for 64.7% of the variance. These results are presented in Table 6. Of the 30 items, 22 loaded on Factor 1 with loadings of .35 or greater and with a loading difference of at least 10 from the next closest factor. The loadings ranged from a high of .83 to a low of .48 with a mean loading of .63. Running a principal components analysis with varimax rotation a second time, this time limiting the number of factors to 2 (the cohesion and adaptability in Olson's study) ended with 2 factors which accounted for 39.5% of the variance (Table 7). Using the same criteria as above, 22 of the items again loaded on Factor 1, only 5 of the items loaded on Factor 2, 2 of the items loaded about equally on each and one loaded on neither. Of the original items included in the Adaptability dimension, only 9 loaded clearly on Factor 1 and only 2 of the Cohesion items loaded clearly on Factor 2.

Running separate factor analyses on the items Olson included under the Cohesion and Adaptability scales produced for the Cohesion scale (see Table 8) a total of 16 factors, 3 factors with Eigen values over 1.00, which accounted for a variance of 55.1%. Of the 16 items, 9 loaded clearly on Factor 1, 3 on Factor 2, 2 on Factor 3 and 2 were split between factors. With the 14 Adaptability items (see Table 9), the principal components analysis with varimax rotation resulted in a total of 14 factors, 4 factors with Eigen values greater than 1.00, which accounted for 59.3% of the variance. Of the 14 items, 4 loaded clearly on Factor 1, 2 on Factor 2, 3 on Factor 3 and 3 on Factor 4 with 2 split equally between factors. These results do not seem to

Table 6

Varimax Rotated Factor Matrix for Family Adaptability and Cohesion Evaluation Items (FACES II)

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²
<u>Cohesion (F1) (22 items)</u>									
32% of variance, mean loading of .63									
17 Family members feel very close to each other.	.83	.10	.20	-.07	.04	.02	-.17	-.11	.78
2 In our family, it is easy for everyone to express his opinion.	.77	-.01	.10	-.04	-.01	-.13	.14	.09	.66
3 It is easier to discuss problems with people outside the family than with other family members.	.75	-.02	.21	.13	-.09	.00	.11	.21	.69
8 Family members discuss problems and feel good about solutions.	.70	.09	.09	.10	.11	-.11	.05	.23	.59
30 Family members share interests and hobbies with each other.	.69	.14	.21	.13	-.09	.06	-.15	.13	.61
1 Family members are supportive of each other during difficult times.	.67	.25	.18	.06	-.18	-.07	-.23	-.13	.66
13 Family members consult other family members on their decisions.	.67	.09	.14	-.11	.24	-.02	-.02	.14	.57
18 Discipline is fair in our family.	.67	.24	.15	-.23	.06	.21	.19	-.15	.69
21 Family members go along with what the family decides to do.	.65	.04	.13	.21	-.08	-.13	-.12	-.24	.59
19 Family members feel closer to people outside the family that to other family members.	-.62	.14	.03	.28	-.04	-.21	.18	.08	.57
26 When problems arise, we compromise.	.62	.18	.12	.18	.07	-.23	.15	-.15	.57
28 Family members are afraid to say what is on their minds.	-.62	.06	.31	.24	-.13	.12	-.02	.29	.66
25 Family members avoid each other at home.	-.61	.18	.15	.11	-.21	.17	.40	.23	.74
4 Each family member has input in major family decisions.	.60	-.23	-.13	.14	.24	.21	-.01	.21	.59
22 In our family, everyone shares responsibilities.	.59	.15	-.11	.20	-.22	.19	.39	-.06	.64
7 Our family does things together.	.58	.03	.09	.11	-.45	.07	.06	.37	.71
9 In our family, everyone goes his/her own way.	-.58	-.01	.16	.29	.21	.18	.03	-.15	.54
3 It is easier to discuss problems with people outside the family than with other family members.	-.56	-.29	.21	.42	.20	.16	.07	-.12	.70
11 Family members know each other's close friends.	.55	-.19	.11	.33	.32	.30	.12	.04	.67
15 We have difficulty thinking of things to do as a family.	-.51	.14	.13	.06	.21	-.32	.31	-.21	.58
12 It is hard to know what the rules are in our family.	-.49	.03	.18	.30	.36	-.15	-.38	.31	.75
27 We approve of each other's friends.	.48	.09	.28	-.00	-.04	.39	-.08	-.32	.58

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²
<u>Involvement of Children (F2) (3 items)</u>									
7% of variance, mean loading of .62									
6 Children have a say in their discipline.	.11	.66	-.31	.12	.13	-.02	-.23	.24	.68
16 In solving problems, the children's suggestions are followed.	-.18	.63	-.48	.00	.04	.28	.09	-.02	.72
29 Family members pair up rather than do things as a total family.	-.34	.57	.27	-.04	.25	.05	.25	.00	.64
<u>Flexibility (F3) (1 item)</u>									
5% of variance									
10 We shift household responsibilities from person to person.	.15	.15	-.60	.54	-.01	.12	-.02	-.17	.74
5 Our family gathers together in the same room.	.45	-.42	-.10	.43	-.21	-.11	-.04	-.15	.66
14 Family members say what they want.	.41	-.27	-.17	-.17	.45	.03	.35	.13	.64
20 Our family tries new ways of dealing with problems.	.54	.09	-.15	.15	.05	-.56	.18	-.01	.70
24 It is difficult to get a rule changed in our family.	-.29	.44	.37	.14	-.19	-.09	-.09	-.18	.52
Eigenvalue (after rotation)	9.73	2.12	1.57	1.45	1.23	1.17	1.10	1.03	
Alpha (reliability coefficients)	.76	.63	.41	.35	.31	.41	.33	.29	

Table 7

Varimax Rotated Factor Matrix for Family Adaptability and Cohesion Evaluation Items (FACES II) (Factors Limited to Two)

Item #	F1	F2	H ²
<u>Cohesion (F1) (22 items)</u>			
32% of variance, mean loading of .63			
17	.82	-.16	.69
2	.73	-.25	.60
1	.72	.03	.52
18	.71	.02	.51
23	.71	-.25	.57
30	.70	-.08	.50
8	.69	-.14	.49
13	.66	-.12	.46
26	.64	-.02	.41
21	.64	-.16	.43
3			
	-.62	-.10	.41
22	.61	-.04	.37
28	-.57	.25	.39
7	.56	-.15	.34
9	-.55	.17	.33
19			
	-.54	.33	.40
20	.54	-.09	.30
25	-.53	.37	.42
27	.48	-.07	.24
11	.46	-.35	.34
12	-.45	.18	.24
15	-.44	.29	.28

Item #	F1	F2	H ²
<u>Flexibility F2 (5 items)</u>			
7% of variance, mean loading of .58			
29 Family members pair up rather than do things as a total family.	-.15	.65	.44
16 In solving problems, the children's suggestions are followed.	.18	.61	.40
6 Children have a say in their discipline.	.31	.59	.45
5 Our family gathers together in the same room.	.30	-.54	.38
24 It is difficult to get a rule changed in our family.	-.14	.51	.28
4 Each family member has input in major family decisions.	.49	-.41	.41
10 We shift household responsibilities from person to person.	.19	.10	.05
14 Family members say what they want.	.30	-.39	.24
Eigenvalue (after rotation)	9.73	2.12	
Alpha (reliability coefficients)	.79	.62	

Table 8

Varimax Rotated Factor Matrix for Cohesion Items on Family Adaptability and Cohesion Evaluation (FACES II)

Item #					
<u>Emotional Bonding (F1) (9 items)</u>					
39.7% of variance, mean loading of .63					
1	Family members are supportive of each other during difficult times.	.73	-.12	-.24	.61
23	Family members like to spend their free time with each other.	.72	-.28	-.14	.66
21	Family members go along with what the family decides to do.	.71	-.20	-.14	.57
17	Family members feel very close to each other.	.71	-.27	-.41	.73
30	Family members share interests and hobbies with each other.	.65	-.17	-.28	.53
27	We approve of each other's friends.	.60	-.06	-.15	.38
13	Family members consult other family members on their decisions.	.54	-.00	-.30	.54
11	Family members know each other's close friends.	.53	-.42	.25	.53
7	Our family does things together.	.50	-.13	-.37	.41
<u>Coalitions (F2) (3 items)</u>					
8.4% of variance, mean loading of .67					
29	Family members pair up rather than do things as a total family.	.01	.84	.06	.70
25	Family members avoid each other at home.	-.34	.60	.29	.56
15	We have difficulty thinking of things to do as a family.	-.17	.56	.32	.44
<u>Disengagement (F3) (2 items)</u>					
7.0% of variance, mean loading of .71					
3	It is easier to discuss problems with people outside the family than with other family members.	-.18	.05	.80	.67
9	In our family, everyone goes his/her own way.	-.20	.25	.62	.49
5	Our family gathers together in the same room.	.46	-.49	.15	.47
19	Family members feel closer to people outside the family than to other family members.	-.35	.47	.41	.52
Eigenvalue (after rotation)		6.35	1.34	1.12	
Alpha (reliability coefficients)		.76	.61	.52	

Table 9

Varimax Rotated Factor Matrix for Adaptability Items on Family Adaptability and Cohesion Evaluation (FACES II)

Item #	F1	F2	F3	F4	H ²
<u>Problem Solving (F1) (4 items)</u>					
31.2% of variance, mean loading of .71					
26 When problem arise, we compromise.	.77	.24	-.05	.04	.66
8 Family members discuss problems and feel good about the solutions.	.74	.11	.26	.03	.63
20 Our family tries new ways of dealing with problems.	.71	.02	.20	.09	.55
2 In our family, it is easy for everyone to express his/her opinion.	.63	.37	.32	-.11	.64
<u>Rules (F2) (2 items)</u>					
12.3% of variance, mean loading of .76					
.12 It is hard to know what the rules are in our family.	-.05	-.82	-.19	.01	.71
.18 Discipline is fair in our family.	.45	.69	.01	.00	.69
<u>Negotiation (F3) (3 items)</u>					
8.3% of variance, mean loading of .64					
24 It is difficult to get a rule changed in our family.	-.06	.03	-.74	.03	.55
14 Family members say what they want.	.14	.25	.62	-.08	.47
4 Each family member has input in major family decisions.	.32	.18	.57	.07	.47
<u>Roles (F4) (3 items)</u>					
7.6% of variance, mean loading of .73					
16 In solving problems, the children's suggestions are followed.	-.17	.28	-.13	.78	.73
6 Children have a say in their discipline.	.26	-.08	-.24	.70	.63
10 We shift household responsibilities from person to person.	.07	-.10	.31	.70	.58
22 In our family, everyone shares responsibilities.	.46	.43	.17	.24	.48
28 Family members are afraid to say what is on their minds.	-.33	-.46	-.41	-.09	.49
Eigenvalue (after rotation)	4.36	1.71	1.16	1.06	
Alpha (reliability coefficients)	.62	.43	.47	.48	

support the various dimensions (9 under Cohesion, 6 under Adaptability) proposed in Olson's Circumplex model. In addition, there was a correlation of .72 between the Cohesion and Adaptability scores based on Olson's scoring system. Clearly, the 2 dimensions do not seem to be independent and the decision was made to use a total FACES score, treating the results as one dimension of internal family strengths which included questions concerning both cohesion and adaptability. This total FACES score was used in the rest of the analyses. To obtain a measure of reliability for this total score, Cronbach's Alpha was computed. For this study, the overall scale reliability was .72, considerably lower than the total scale reliability figures obtained by Olson et al. (1982). This difference in reliability may be due to difference in sample size or in type of population studied. Olson found that his total scale Cronbach Alpha was .90 with the Cohesion subscale of .87 and the Adaptability subscale at .78.

In examining a scatter plot of the relationship between FACES and Quality of Life, there was a linear relationship of .30 between the two variables which was significant at the .01 level. This data, thus, did not support the curvilinear hypothesis of the Circumplex model but rather a linear relationship as suggested by Broderick (1984), Beavers and Voeller (1983) and Beavers, Hampson and Hulgus (1985).

The results of this analysis support some of the criticisms which have been leveled against FACES and FACES II. Joanning and Kuehl (1986) point out that neither FACES or FACES II items were empirically tested through an overall factor analysis but instead items were assigned to cohesion or adaptability dimensions by expert judges. Green, Kolevzon and Vosler (1985, a & b) also suggested that there may be a flaw in the Circumplex Model's premise that a relationship exists between optimal family functioning and moderate (rather than high) amounts of adaptability. This same criticism was made by Kuncze and Priesmeyer (1985). They also reported that their findings failed to confirm the overall prediction that balanced families would score higher than enmeshed families. In addition, they assert that their triangulated measures served to control for pseudomutuality

which Olson and his group suggested might be the reason that enmeshed families reported higher levels of satisfaction. Similarly, Beavers, Hampson and Hulgus (1985) found a correlation of .6776 between the two dimensions of adaptability and conclude that there is no evidence for orthogonality in these family system constructs. In 1982 Olson and his associates came out with a revised version of FACES II. Joanning and Kuehl (1986) reviewed this revised instrument, FACES III, and found it a great improvement over earlier versions of the instrument as all items were subjected to a factor analysis to produce the dimensions. The new version has 20 items with 10 Cohesion items and 10 Adaptability items with a correlation of only .03 between the two scales. It will be interesting to see with future studies whether some of the contradictory results may be attributable to psychometric problems in the earlier versions of FACES as Olsen has recently suggested or whether the Circumplex Model's curvilinear assumption is in error as Beavers implies.

Social Support

Using the 60 items on the Social Support questionnaire, a principal components analysis with varimax rotation was performed. This analysis resulted in 16 factors with an Eigen value greater than 1. These 16 factors accounted for 73% of the variance. Using the Scree test, these factors were narrowed to 8 which accounted for 53.4% of the variance. After varimax rotation, the items were ranked on each factor according to the magnitude of their highest loading. The loadings ranged from a high of .95 to a low of .33 with a mean of .59. Two items which did not load clearly on any of the scales or were below .35 were eliminated leaving 58 items. The eight resulting scales were Church and Spiritual Faith, Co-workers & A.F., Children, Close Friends and Relatives, Special Groups, Spouse, Other Sources, and Community and Neighborhood. It is interesting to note that the factors resulted in sources of support being grouped together rather than the 5 types of support: emotional, esteem, network, appraisal and altruistic. The overall internal reliability for the Social Support questionnaire was .88 (Cronbach's Alpha) with scale

reliability scores ranging from .92 on Church and Spiritual Faith to .67 on Other Sources of Support. Table 10 summarizes the scales and reliability figures that resulted from the items loaded on Factors 1 to 8. A total Social Support score was obtained by summing the eight scale scores and this total score was used in the data analyses as well as the eight scale scores. These findings are similar to the results of the factor analysis done by Grochowski and McCubbin (1987) on their support inventory which was modified for a young adult population (Young Adult Social Support Inventory).

Minimal support was found for the gender differences in regard to social support (Cohen & Wills, 1985; Hays & Oxley, 1986; Sarason et al., 1986). The only difference found was in the men's increased use of co-workers for social support which would be expected as many of the wives did not work. This lack of findings may have resulted from the particular instrument which was used to assess social support. As mentioned previously, there have been a wide variety of methods and instruments used to assess social support. Hays and Oxley (1986) had reported that females exchanged more informational and emotional support than did the males in

Table 10

Varimax Rotated Factor Matrix of the Social Support Index (SSI) Items

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²	
<u>Church and Spiritual Faith (F1) (10 items)</u>										
15% of variance, mean loading of .74										
19	I feel I am valued and respected by church groups	.80	.05	.17	.08	.08	-.09	.01	.18	.72
31	I have a sense of trust and security from church groups	.80	.03	.10	.12	.07	.05	.06	.08	.69
7	I have a sense of trust and security from church groups	.79	.07	.07	.07	.10	-.05	.17	.08	.68
55	I feel good about myself from helping church groups	.78	.10	.15	-.00	.03	-.04	-.06	.13	.67
8	I have a feeling of love and caring from spiritual faith	.75	-.02	-.07	.07	.04	.01	.10	.02	.58
20	I feel valued and respected by my spiritual faith	.75	-.04	-.07	.11	.11	-.01	.26	-.01	.66
32	I have a sense of trust and security from my spiritual faith	.72	-.04	-.06	.04	.08	-.02	.13	.01	.56
44	I feel understood and get help from my spiritual faith	.72	-.05	-.03	.00	.02	.02	.12	.07	.54
43	I feel understood and get help from church groups	.63	-.02	.20	.13	.05	-.12	-.02	.05	.47
56	I feel good about myself when I help people who share	.61	.19	.05	.06	.11	.04	-.04	.04	.44
<u>Co-workers/A.F. Command (F2) (8 items)</u>										
7.3% of variance, mean loading of .67										
18	I feel valued and respected by co-workers	-.04	.83	-.04	-.03	.01	-.02	-.09	.03	.70
30	I feel a sense of trust and security from co-workers	.03	.80	-.04	.13	.03	-.00	-.15	.03	.67
54	I feel good about myself when helping co-workers	.03	.78	.01	-.04	-.02	.12	-.09	.08	.64
6	I feel loved and cared about by co-workers	.04	.71	.05	.09	.11	.00	.04	-.04	.56
17	I feel valued and respected by A.F. Command	.01	.59	-.14	.04	-.06	-.06	.18	.05	.41
42	I feel understood and get help from co-workers	.05	.57	-.07	.19	.08	-.14	-.09	.01	.40
53	I feel good about myself when helping A.F. Command	.11	.56	.13	.12	.06	-.03	.10	.26	.45
29	I feel a sense of trust and security from A.F. Command	.15	.52	-.02	.18	-.06	-.05	.32	-.02	.43
<u>Children (F3) (5 items)</u>										
6.6% of variance, mean loading of .82										
2	I have a feeling of being loved and cared about by my kids	.09	.06	.95	-.03	.07	.00	.01	.00	.91
50	I feel good about myself when helping my children	.10	.07	.94	-.01	.05	.00	.02	.01	.90

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²
<u>Children (F3) (Continued)</u>									
14 I feel valued and respected by my children	.04	.05	<u>.90</u>	.03	.02	.02	.04	.06	.83
26 I have a sense of trust and security from involvement with my children	.12	.02	<u>.90</u>	.03	.05	.05	.04	.01	.82
38 I feel understood and get help from my children	.05	-.02	<u>.44</u>	.12	.06	.14	.01	.16	.26
<u>Close Friends and Relatives (F4) (10 items)</u> 6.0% of variance, mean loading of .60									
15 I feel valued and respected by my relatives	-.02	-.02	-.09	<u>.67</u>	.01	.13	.04	.15	.49
28 I have a sense of trust and security from close friends	.15	.15	.12	<u>.67</u>	.21	-.05	-.01	-.06	.56
16 I feel valued and respected by my close friends	.11	.14	.06	<u>.64</u>	.22	-.04	-.03	-.10	.51
27 I have a sense of security and trust from involvement with relatives	.03	.02	.03	<u>.64</u>	-.05	.04	.08	.16	.45
52 I feel good about myself when helping close friends	.11	.11	.02	<u>.59</u>	.10	.02	-.06	-.07	.40
3 I have a sense of being loved and cared about by other relatives	-.03	.04	-.03	<u>.57</u>	-.08	.10	.05	.20	.39
39 I feel understood and get help from other relatives	.07	-.00	.00	<u>.57</u>	-.15	.15	.09	.05	.39
4 I have a feeling of being loved and cared about by close friends	.14	.16	-.06	<u>.56</u>	.23	-.07	.06	-.12	.44
40 I feel understood and get help from close friends	.11	.15	.13	<u>.55</u>	.16	-.10	.13	-.15	.40
51 I feel good about myself when I do things for other relatives	.09	.01	.04	<u>.54</u>	-.18	.03	.04	.26	.43
<u>Special Groups (F5) (7 items)</u> 5.5% of variance, mean loading of .64									
35 I have a sense of security and trust from involvement with special groups	.04	-.03	.06	.05	<u>.86</u>	-.02	.09	.13	.78
23 I feel valued and respected by special groups	.06	.08	.07	-.01	<u>.84</u>	.01	.03	.09	.73
11 I feel loved and cared about by special groups	.11	-.02	-.02	.06	<u>.82</u>	.04	.04	.10	.70
47 I feel understood and get help from special groups	.18	.00	-.08	.06	<u>.82</u>	.06	-.13	-.12	.37
22 I feel valued and respected by professionals	.05	.10	.05	.05	<u>.52</u>	.05	.22	.24	.40
59 I feel good about myself when helping special groups	.29	.13	.10	.06	<u>.48</u>	.04	-.09	.25	.41
34 I have a sense of trust and security from involvement with professionals	.05	-.02	.17	.04	<u>.45</u>	-.04	.14	.22	.31

Item #	F1	F2	F3	F4	F5	F6	F7	F8	H ²	
<u>Spouse (F6) (5 items)</u>										
4.8% of variance, mean loading of .81										
13	I feel valued and respected by my spouse	-.01	.01	.01	.07	-.01	.86	-.01	.03	.75
25	I feel a sense of trust and security from involvement with	-.06	.02	.10	.07	.02	.85	-.01	-.00	.75
1	I feel loved and cared about by my spouse	-.02	-.03	.02	.01	-.02	.82	-.08	-.03	.68
49	I feel good about myself when helping my spouse	-.03	-.07	.07	.04	.06	.78	-.01	.05	.62
37	I feel understood and get help from my spouse	-.02	-.06	.00	.04	.06	.77	-.00	-.01	.60
<u>Other Sources of Support (F7) (8 items)</u>										
4.4% of variance, mean loading of .54										
24	I feel valued and respected by books, TV	.14	-.10	-.01	.03	.05	-.07	.78	.12	.66
36	I feel a sense of trust and security from involvement with books and TV	.12	-.07	.06	.02	.08	-.09	.75	.16	.62
10	I feel loved and cared about by professional	.11	.07	.05	.03	.30	.04	.56	.00	.43
12	I feel loved and cared about by books and TV	.08	.00	-.13	-.03	-.15	-.09	.55	.15	.38
5	I feel loved and cared about by A.F. Command	-.11	.39	.16	.13	.07	-.05	.48	-.02	.45
41	I feel understood and get help from A.F. Command	.01	.31	.12	.09	-.09	.08	.40	-.09	.30
48	I feel understood and get help from books and TV	.23	-.01	.00	.14	.03	.13	.40	-.14	.27
46	I feel understood and get help from professionals	-.04	-.08	.02	.03	.15	-.05	.38	.34	.30
<u>Community and Neighborhood (F8) (5 items)</u>										
3.6% of variance, mean loading of .63										
33	I feel trust and security from involvement with my community and neighborhood groups	.14	.05	.11	.06	.02	.02	.14	.75	.62
21	I feel valued and respected by the above groups	.13	.04	-.04	.04	.23	-.01	-.01	.71	.58
9	I feel loved and cared about by the above groups	.14	.04	.05	.00	.14	-.10	.01	.65	.48
45	I feel understood, get help from the above groups	.04	.06	.02	.08	.09	.06	.08	.58	.37
57	I feel good about myself when helping the above groups	.43	.24	.12	.17	.07	-.01	-.04	.44	.48
58	I feel good about myself when I help professionals	.29	.27	.12	.01	.16	.05	.25	.33	.38
60	I feel good about myself when I help books and TV	.26	.22	-.17	.13	.03	-.03	-.05	.10	.18
Eigenvalue (after rotation)										
Alpha (reliability coefficients)										
		9.01	4.38	3.99	3.61	3.29	2.89	2.66	2.19	
		.92	.84	.90	.81	.81	.87	.87	.77	

their study. In this study, the women showed a greater use of the Social Support Scale from the Ways of Coping Checklist. The items on this scale are primarily emotional support items and this significant difference would support Hays and Oxley's findings.

Quality of Life

A factor analysis was performed on the 40 Quality of Life items to determine if the 12 factors which Olson and Barnes (1982) delineated could be replicated with this population. A principal components analysis resulted in 10 factors with an Eigen value greater than 1 accounting for 66.8% of the variance. After varimax rotation, the items were ranked on each factor according to the magnitude of their highest loading. Item 4 was dropped because it was apparent that many subjects had misunderstood the question. Although the question asked was "How satisfied are you with the number of children in your family?", it was apparent from reviewing the questionnaires that many people misunderstood and circled the actual number of children that they had in their family. Item 14 was dropped because it loaded on 2 scales equally. Factor 10 had only one item load on it. As this was considered an insufficient number of items for a factor, both item 3 and Factor 10 were dropped from the analysis. This eliminated 3 items leaving 37 items and 9 factors: Financial Well Being, Time, Family Life, Neighborhood and Community, Home/Physical Space, Mass Media, Friends and Relatives, Employment and Religion/Family Education. Cronbach's Alpha for the total scale was .86 with scale reliability scores ranging from .87 on Financial Well Being to .47 on Religion/Family Education. Table 11 summarizes the scales and reliability figures that resulted from the items loaded on Factors 1 to 9.

These scales were compared to those obtained by Olson and Barnes.

Table 11

Varimax Rotated Factor Matrix of the Quality of Life Scale Items

Item #	F1	F2	F3	F4	F5	F6	F7	F8	F9	H ²
<u>Financial Well-Being (F1) (6 items)</u>										
25.8% of variance, mean loading of .76										
34 Money for future needs of family	.84	.11	.25	.01	.12	.11	.10	.07	.06	.83
32 Amount of money you owe	.84	.08	.08	.10	-.05	-.00	-.04	.04	.02	.72
33 Level of Saving	.83	.17	.09	-.03	.10	.08	.11	.04	.03	.75
31 Your ability to handle financial emergencies	.76	.19	.09	.11	-.01	.00	-.11	.22	.09	.72
29 Your level of income	.65	-.02	.24	.21	.24	.02	.09	.29	.09	.68
30 Money for family necessities	.63	-.05	.32	.22	.20	.09	.13	.28	.06	.71
<u>Family Life (includes Household Responsibilities and Health) (F2) (6 items)</u>										
7.6% of variance, mean loading of .61										
1 Your family	.08	.77	.11	.09	.06	-.01	.02	-.03	.12	.64
2 Your marriage	.10	.76	.21	-.06	-.01	.13	-.02	.04	.03	.66
11 Other family member's household responsibilities	.18	.62	.16	.12	.36	.07	.15	-.01	-.04	.62
10 Your household responsibilities	.16	.54	.25	.18	.48	.11	.08	.08	-.14	.68
8 Health of other family members	.04	.50	.09	.23	.10	.04	.23	.29	.01	.50
7 Your own health	.05	.49	-.01	.08	.05	.12	.32	.24	.15	.46
<u>Time (F3) (5 items)</u>										
6.1% of variance, mean loading of .67										
19 Time for housework	.17	.32	.77	.11	.06	.00	.07	.06	.06	.76
16 Amount of free time	.32	.10	.73	.12	.10	.24	-.02	.03	.17	.76
18 Time for family	.23	.17	.72	.18	.26	.08	.17	-.08	-.06	.76
17 Time for self	.16	.29	.68	.10	.25	.19	-.05	.07	.10	.72
20 Time for earning money	.28	-.13	.43	-.01	.16	.05	-.10	.35	.37	.57

Item #	F1	F2	F3	F4	F5	F6	F7	F8	F9	H ²
<u>Neighborhood & Community (F4) (6 items)</u>										
5.8% of variance, mean loading of .62										
37 Safety in community	.15	.05	-.02	<u>.78</u>	.13	.06	-.03	-.04	.09	.70
39 Recreational facilities	.15	.03	.15	<u>.68</u>	.09	.02	.21	.03	-.02	.62
36 Shopping in community	.05	.10	.18	<u>.65</u>	-.05	.06	-.01	.27	-.02	.55
38 Neighborhood you live in	.05	.15	-.03	<u>.63</u>	.38	.02	.07	.12	.15	.68
35 Schools in community	-.02	.11	.13	<u>.50</u>	.00	.35	.10	.09	.10	.47
40 Health care services	.10	.00	.26	<u>.47</u>	.03	.20	.22	.02	.05	.56
<u>Home/Physical Space (F5) (3 items)</u>										
4.9% of variance, mean loading of .78										
9 Your current housing arrangement	.09	.03	-.00	.18	<u>.79</u>	-.03	.20	.00	.11	.73
13 Space for your family needs	.15	.11	.28	.06	<u>.79</u>	.15	.02	.03	.08	.79
12 Space for your own needs	.02	.19	.27	.01	<u>.77</u>	.13	-.01	.13	.07	.78
<u>Mass Media (F6) (4 items)</u>										
4.3% of variance, mean loading of .72										
26 Quality of TV programs	.05	.09	.03	.06	.05	<u>.90</u>	.06	.05	.02	.84
27 Quality of movies	.06	.03	.09	.03	.05	<u>.86</u>	.13	.04	.07	.78
28 Quality of newspapers & magazines	.03	-.00	.14	.23	.10	<u>.64</u>	.06	-.01	.23	.55
25 Amount of time family members watch TV	.11	.32	.20	.03	.08	<u>.49</u>	.06	.06	-.27	.49
<u>Friends & Relatives (F7) (2 items)</u>										
3.4% of variance, mean loading of .80										
6 Your friends	.06	.04	-.02	.07	.08	.23	<u>.82</u>	.09	.03	.77
5 Your relationship with relatives	.03	.27	.12	.13	.15	.05	<u>.77</u>	.07	.07	.74
<u>Employment (F8) (2 items)</u>										
3.3% of variance, mean loading of .75										
24 Your job security	.30	.11	.02	.22	.01	.04	.02	<u>.77</u>	.01	.76
23 Your principal occupation	.29	.13	.03	.06	.12	.08	.21	<u>.74</u>	.05	.75

Item #	F1	F2	F3	F4	F5	F6	F7	F8	F9	R^2
<u>Religion/Family Education (F9) (3 items)</u>										
2.9% of variance, mean loading of .58										
15 Educational programs designed to improve marriage and family life	.06	-.02	.23	-.01	.15	.14	.04	.12	<u>.67</u>	.57
21 Religious life of family	.20	.43	.05	.12	.08	-.12	.28	-.08	<u>.54</u>	.65
22 Religious life in community	.09	.17	-.04	.37	.00	.18	.01	-.03	<u>.53</u>	.52
3 Your children	-.01	.02	.08	.12	-.07	-.02	.08	.08	-.02	.68
14 The amount of education you have	<u>.34</u>	.16	-.00	.04	.36	-.00	.24	.03	.30	.52
<hr/>										
Eigenvalues (after rotation)	10.04	2.95	2.39	2.27	1.93	1.66	1.31	1.27	1.15	
Alpha (reliability coefficients)	.87	.69	.80	.64	.56	.52	.48	.76	.47	

Three scales were replicated in entirety: Financial Well-Being, Mass Media and Home-Physical Space. The Time factor was the same except one additional item was added. Where the Olson study had three separate scales for Family Life, Health and Home-household responsibilities, these were combined into one Family Life Scale for this population. There was no scale for family members on the present study since item # 4 was dropped. Whereas in the Olson and Barnes factor analysis, Religion, Friends and Extended Family appeared as one factor, in this population, factor analysis produced a factor in which Religion and Family Education were grouped and Friends and Relatives was a separate factor. Question #15 was phrased, "How satisfied are you with the educational programs designed to improve marriage and family life?" As religious programs frequently have an educational component and are seen as a way to improve family life, the combining of these factors does not seem to be theoretically inconsistent. For the most part, the various dimensions of satisfaction with life were substantiated. Table 12 presents the factors and items associated with each for both Olson & Barnes and for this study. Because of the low reliability of many of the separate scales, only the overall score was used in the study.

Test of Hypothesis 1

Procedure

The first hypothesis asked to what extent is family satisfaction related to family adaptability and cohesion, social support, perception, level of coping skills and pile-up of life events? This was tested by using stepwise multiple regression with family satisfaction (total Quality of Life score) as the dependent variable and family adaptability and cohesion, social support,

TABLE 12

A Comparison Between Results Obtained by Olson and Barnes and the Present Study on Quality of Life Results

Factor	Olson and Barnes	Present Study
Financial Well-being	Items 29-34	Same items
Time	Items 16-19	Items 16-20
Neighborhood & Community Education	Items 14,15,35-40 Educationin	Items 35-40 separatefactor
Mass Media	Items 25-28	Same items
Home-Physical Space	Items 9,12,13	Same items
Family Life	Items 1,2,3	Items 1,2,7,8, 10,11
Employment	Items 20,23,24	Items 23,24
Family Members	Item 4	No such factor
Home-Household Responsibilities	Items 10,11	No such factor
Health	Items 7,8	No such factor
Religion, Friends & Extended Family	Items 5,6,21,22	Items 15,21,22 (Rel-Fam Ed)
Friends & Relatives	No such factor	Items 5,6

level of coping skills, perception and pile-up of life events (scores on FACES, Social Support, Coping, Perception and FILE) as the independent variables. Separate analyses were done for husbands and wives. This decision was made partly because of the large number of variables involved and partly because it was desired to discover if variables contributed differentially to the husbands' and the wives' satisfaction scores. The FACES and Quality of Life scores of husbands and wives were combined to obtain a marital dyad discrepancy score and a marital dyad mean score. Individual scores were used on the

Ways of Coping, Perception and Social Support measures. Thus for both the men and the women, two multiple regressions were performed, one using the mean Quality of Life as the dependent measure and the other using the discrepancy Quality of Life score.

Multiple regression results for men. As shown in table 13, when using the mean Quality of Life score as the dependent variable, only pile-up of life events showed a significant relationship with a Beta coefficient of $-.51$ which accounted for 26% of the variance. ($p < .01$). The only other variables which came close to being significantly related were mean FACES ($p < .0511$), Problem-focused coping ($p < .0586$) and Minimization ($p < .0618$). Thus, husbands experiencing a high number of life events (stressors) were more likely to have decreased satisfaction with their life.

As shown in Table 14, when using the Quality of Life discrepancy score as the dependent variable, only the FACES discrepancy score was significantly related with a Beta coefficient of $.29$ which accounted for 8% of the variance ($p < .01$). Thus husbands and wives showing a large discrepancy between their FACES scores were more likely to show a large discrepancy between their satisfaction scores.

Table 13

Regression of Mean Family Satisfaction with Family Adaptability and Cohesion, Social Support, Level of Coping Skills, Perception and Pipe-up of Life Events

Source of Variation ^a	Mean Family Satisfaction						
	r ^a	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
<u>MEN</u>							
<u>Variables in the Equation</u>							
Pile-up of Life Events	-.51	-.51		.26	.26	32.97**	.25
<u>Variables Not in the Equation</u>							
Family Adaptability and Cohesion-M	.20	.19				3.91	
Social Support	.18	.16				3.07	
Perception	.06	.06				.38	
Problem-Focused Coping	.20	.17				3.67	
Positive-Focused Coping	.15	.13				2.00	
Self-Focused Coping	.01	.00				.01	
Social Support-Coping	.04	.04				.18	
Displacement/Denial	-.05	-.05				.26	
Wishful Thinking	.02	.02				.05	
Minimization	-.19	-.17				3.58	
Reframing	.14	.12				1.83	
<u>WOMEN</u>							
<u>Variables in the Equation</u>							
Pile-up of Life Events	-.52	-.41	.086	.27	.27	32.57**	
Displacement/Denial	-.32	-.22	.083	.33	.06	21.71**	
Family Adaptability and Cohesion-M	.35	.25	.087	.37	.04	17.12**	
Perception	.23	.23	.084	.42	.05	15.73**	.40
<u>Variables Not in the Equation</u>							
Social Support	.15	.13				2.03	
Problem-Focused Coping	.09	.08				.72	
Positive-Focused Coping	.03	.02				.08	
Self-Focused Coping	-.05	-.04				.24	
Social Support-Coping	.01	.00				.01	
Wishful Thinking	-.09	-.09				.73	
Minimization	.08	.07				.56	
Reframing	.08	.06				.56	

*p .05

**p .01

^aFor variables not in the equation, the r value is the partial correlation.

Table 14

Regression of Discrepant Family Satisfaction with Family Adaptability and Cohesion, Social Support, Level of Coping Skills, Perception and Pile-up of Life Events

Discrepant Family Satisfaction							
Source of Variation	r ^a	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
MEN							
<u>Variables in the Equation</u>							
Family Adaptability and Cohesion-D	.29	.29	.099	.08	.08	8.30**	.07
<u>Variables Not in the Equation</u>							
Pile-up of Life Events	-.11	-.11					
Social Support	-.15	-.15				1.15	
Perception	-.01	-.01				2.16	
Problem-Focused Coping	-.04	-.04				.02	
Positive-Focused Coping	.03	.02				.13	
Self-Focused Coping	.18	.17				.06	
Social Support-Coping	.04	.03				2.98	
Displacement/Denial	-.05	-.04				.12	
Wishful Thinking	.10	.10				.19	
Minimization	.00	.00				1.01	
Reframing	.08	.07				.00	
						.54	
WOMEN							
<u>Variables in the Equation</u>							
Pile-up of Life Events	-.37	-.37	.094	.13	.13	13.79**	
Family Adaptability and Cohesion-D	.27	.26	.093	.20	.07	10.70**	
Reframing	.18	.22	.094	.24	.04	9.38**	.22
<u>Variables Not in the Equation</u>							
Social Support	-.12	-.12				1.21	
Perception	.04	.03				.12	
Problem-Focused Coping	-.03	-.02				.06	
Positive-Focused Coping	.12	.12				1.35	
Self-Focused Coping	-.19	-.17				3.24	
Social Support-Coping	.06	.06				.32	
Displacement/Denial	-.08	-.07				.52	
Wishful Thinking	-.05	-.04				.20	
Minimization	-.00	-.00				.00	

*p .05

**p .01

^aFor variables not in the equation, the r value is the partial correlation.

Multiple regression results for women. Tables 13 and 14 also present the results of the stepwise multiple regression for women. The procedure was identical to that for the men. As shown in Table 13, when using the mean Quality of Life as the dependent variable, four variables proved to be significantly related. As with the men, Total Recent Life Events was the most significantly related with a Beta coefficient of $-.41$, accounting for 27% of the variance ($p < .01$). The other three variables which were also significantly related (although each were rather small increases) were: Displacement/Denial with a Beta coefficient of $-.22$ raised the Multiple R to $.57$ and accounted for an additional 6% of the variance ($p < .01$); mean FACES with a Beta coefficient of $.25$ raised the multiple R to $.61$ and accounted for an additional 4% of the variance ($p < .01$); and Perception with a Beta coefficient of $.23$ raised the multiple R to $.65$ and accounted for an additional 5% of the variance ($p < .01$). Together, these 4 variables resulted in a multiple R of $.65$ and accounted for 42% of the variance.

As with husbands, those wives showing a higher number of stressful life events were more likely to have lower satisfaction with their quality of life. But in addition, those wives experiencing a higher degree of cohesion and adaptability in their families and those who had higher subjective perception scores (had more previous moves, more positive attitudes toward leaving their previous base, coming to Hill AFB and toward the A.F. in general, previous exposure to Utah, had friends or relatives in Utah and positive appraisal of coping strategies) were more likely to have higher levels of satisfaction. What appeared to negatively affect wife's levels of satisfaction was the use of the displacement or denial as a coping strategy.

As shown in Table 14, when using the discrepancy Quality of Life score as the dependent variable, three variables were found to be significantly correlated with the dependent measure. Total Recent Life Events which had a Beta coefficient of $-.37$ and a multiple R of $.37$ accounted for 13% of the variance ($p < .01$). The discrepancy FACES score with a Beta coefficient of $.26$ raised the multiple R to $.44$ and accounted for an

additional 7% of the variance ($p < .01$). Finally, one of the coping skills, Reframing, with a Beta coefficient of .22 raised the multiple R to .49 and accounted for an additional 4% of the variance ($p < .01$). Together these three variables resulted in a multiple R of .49 and accounted for 25% of the variance in the discrepancy Quality of Life score.

As with the men's results, the higher the discrepancy between husbands and wife's levels of adaptation and cohesion, the more likely that there would be a greater discrepancy between their levels of satisfaction. It is interesting to note, however, that total life events was inversely related to the discrepancy Quality of Life score. Thus, the higher the number of stressful life events, the lower the amount of discrepancy between the husband's and wife's levels of satisfaction. Perhaps the high level of stressful events serves as a somewhat unifying factor, that is it serves to bring both husband's and wife's levels of satisfaction to a similar level, probably a lower one given the uniformly negative relationship between number of stressful life events and satisfaction. As the third factor, Reframing had such a low level of reliability, no interpretation can be made with any degree of confidence. For both the husbands and the wives, the family discrepancy scores were less effective in accounting for variance in outcome than was the use of family mean scores.

Test of Hypothesis 2

Procedure

Hypothesis 2 asked to what extent is the relationship between family satisfaction, family adaptability and cohesion, social support, level of coping skills and pile-up influenced by the following variables: number of previous moves, years married, education, rank, number of children, ages of children, attitude toward Air Force, attitude toward move to new base, number of months since the move, wife's employment, and number of years in the service. This was done by multiple regression using forward variable selection of the independent variables after controlling for the variance accounted

for by the moderator variables. As in Hypothesis 1, both mean and discrepancy Quality of Life scores were the dependent measures. Again, separate analyses were done for the men and the women. Tables 15 and 16 present the results of the multiple regressions for both men and the women.

Multiple regression results for men. As can be seen in Table 15, using mean family satisfaction (the mean Quality of Life score) as the dependent variable, none of the moderator variables in themselves were significantly correlated, but together they had a multiple R of .48 which accounted for 23% of the variance ($p < .047$). Thus, although none of these moderately variables were significantly related to the outcome variable in and of themselves, in combination they accounted for almost a fourth of the variance in the dependent variable. This correlation is likely due to chance alone, however, due to the large number of variables. Controlling for these variables, only Total Recent Life Events was significantly correlated with the dependent measure with a Beta coefficient of $-.41$, increasing the multiple R to $.59$ which accounted for 35% of the variance ($p < .001$). The

Table 15

Regression Analysis of Mean Family Satisfaction with Family Adaptability and Cohesion, Social Support, Level of Coping Skills, Perception, and Pile-up of Life Events after Controlling for Effects of Moderator Variables: Age, Rank, Years in Service, Education, Years Married, Number of Previous Moves, Children, Attitude Toward Leaving Last Base, Attitude Toward Hill, Wife Working before Move

Mean Family Satisfaction							
Source of Variation	r ^a	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
<u>MEN</u>							
<u>Variables in the Equation</u>							
Wife Working Before Move	.09	.04	.112			.16	
Attitude Toward Leaving Last Base	.10	-.06	.122			.25	
Children Ages 13 & Over	-.04	-.04	.131			.09	
Education	.12	.12	.155			.61	
Children Ages 0 to 4	.07	-.05	.134			.15	
Years in Service	-.09	.12	.185			.45	
Children Ages 5 to 12	.15	.08	.158			.28	
Attitude Toward Hill	.28	.15	.126			1.42	
Years Married	.11	.23	.146			2.46	
# of Previous Moves	-.14	-.22	.152			2.16	
Age	-.03	-.08	.166			.24	
Rank	.09	.02	.170			.02	
Children	-.14	-.18	.199			.81	
Total Moderator Variables				.23	.23	1.86*	
Pile-up of Life Events	-.51	-.41	.108	.35	.12	3.04**	.23
<u>Variables Not in the Equation</u>							
Family Adaptability and Cohesion-M	.09	.09				.65	
Social Support	.18	.17				2.79	
Perception	.11	.18				1.04	
Problem-Focused Coping	.20	.17				3.20	
Positive-Focused Coping	.16	.15				1.99	
Self-Focused Coping	.18	.11				1.11	
Social Support-Coping	.03	.03				.07	
Displacement/Denial	.02	.02				.05	
Wishful Thinking	.07	.07				.34	
Minimization	-.12	-.12				1.24	
Reframing	.17	.15				2.43	

*p .05

**p .01

^aFor variables not in the equation, the r value is the partial correlation.

Mean Family Satisfaction							
Source of Variation	r ^a	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
<u>WOMEN</u>							
<u>Variables in the Equation</u>							
Wife Working Before Move	.11	.10	.102			.88	
# of Previous Moves	.05	.24	.140			3.05	
Attitude Toward Leaving Last Base	.15	.06	.118			.25	
Children Ages 0 to 4	.02	-.03	.131			.07	
Education	.00	-.10	.105			.98	
Children Ages 5 to 12	.12	.11	.149			.52	
Children Ages 13 & Over	-.01	-.12	.127			.90	
Years in Service	-.07	-.20	.123			2.68	
Attitude Towards Hill	.23	.14	.124			1.28	
Rank	.07	.09	.147			.38	
Age	.06	.22	.152			2.11	
Years Married	.09	-.07	.162			.17	
Children	-.14	-.33	.185			3.19	
Total Moderator Variables				.20	.20	1.50	
Pile-up of Life Events	-.52	-.60	.099	.42	.22	3.88**	
Social Support	.02	.28	.104	.47	.05	4.39**	.36
<u>Variables Not in the Equation</u>							
Family Adaptability and Cohesion-M Perception	.22	.20				3.86	
Problem-Focused Coping	.10	.19				.71	
Positive-Focused Coping	.08	.07				.44	
Self-Focused Coping	.08	.07				.44	
Social Support-Coping	-.11	-.09				.96	
Displacement/Denial	-.03	-.03				.07	
Wishful Thinking	-.20	-.17				2.95	
Minimization	-.18	-.15				2.45	
Reframing	-.01	-.01				.01	
	.05	.05				.22	

*p .05

**p .01

^aFor Variables not in the equation, the r value is the partial correlation.

only other independent variables which came close to being significantly correlated were Social Support ($p < .0986$) and Problem-focused Coping ($p < .0776$). Thus, the significant inverse relationship between family satisfaction and total recent life events was basically unchanged by accounting for the effects of the moderator variables although, by including these variables, variance accounted for increased from 26% to 35%.

As can be seen in Table 16, using the discrepancy Quality of Life score as the dependent measure, again the moderator variables were not significantly correlated. Only the independent variable discrepancy FACES was significantly correlated (Beta coefficient = .29, $p < .01$). Thus, for the men, the size of the discrepancy between husband's and wife's satisfaction scores was correlated with the size of the discrepancy between the husband's and wife's scores on FACES.

Multiple regression results for women. As with the first multiple regression, the results of the women differed from the men's results. As shown in Table 15, when using the mean Quality of Life as the dependent variable (family satisfaction), the relationship of the moderator variables in and of themselves was not significant, although together they achieved a Multiple R of .45 which accounted for 20% of the variance. Accounting for the moderator variables' influence, two variables were significantly related, Total Recent Life Events with a Beta coefficient of -.60, increased Multiple R to .65 which accounted for 42% of the variance ($p < .01$) and Social Support with a Beta coefficient of .28, which increased the Multiple R to .68 and accounted for 47% of the variance ($p < .01$). The other variables which came close to significant relationship were Previous Moves ($p < .0850$), Children (negative relationship, $p < .0780$), Mean FACES ($p < .0533$) and

Table 16

Regression Analysis of Discrepant Family Satisfaction with Family Adaptability and Cohesion, Social Support, Level of Coping Skills, Perception and Pile-up of Life Events after Controlling for Effects of Moderator Variables: Age, Rank, Education, Years in Service, Years Married, Number of Previous Moves, Children, Attitude Toward Leaving Last Base, Attitude Toward Hill, Wife Working before Move

Discrepant Family Satisfaction							
Source of Variation	r ^a	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
<u>MEN</u>							
<u>Variables in the Equation</u>							
Wife Working Before Move	.03	.03	.121			.06	
Attitude Toward Leaving Last Base	.08	.03	.138			.04	
Children Ages 13 & Over	.17	.17	.149			1.22	
Education	-.04	-.10	.176			.35	
Children Ages 0 to 4	-.08	.10	.152			.45	
Years in Service	-.18	-.08	.207			.15	
Children Ages 5 to 12	.01	-.03	.180			.02	
Attitude Toward Hill	.06	.05	.141			.12	
Years Married	-.14	-.03	.165			.03	
# of Previous Moves	-.14	-.04	.172			.06	
Age	-.18	-.16	.188			.71	
Rank	-.10	.06	.192			.71	
Children	.02	.25	.226			1.23	
Total Moderator Variables				.09	.09	.85	
Family Adaptability and Cohesion-D	.29	.29	.108	.16	.07	6.99**	.01
<u>Variables Not in the Equation</u>							
File-up of Life Events	-.10	-.11				.81	
Social Support	-.19	-.19				3.02	
Perception	.01	.01				.01	
Problem-Focused Coping	-.07	-.07				.38	
Positive-Focused Coping	-.05	-.05				.18	
Self-Focused Coping	.10	.10				.67	
Social Support-Coping	-.03	-.03				.08	
Displacement/Denial	-.08	-.09				.53	
Wishful Thinking	.04	.04				.11	
Minimization	-.07	-.07				.36	
Reframing	.04	.04				.12	

*p .05

**p .01

^aFor variables not in the equation, the r value is the partial correlation.

Discrepant Family Satisfaction							
Source of Variation	r	Beta	Standard Error	R ²	R ² Change	F	Adj R ²
<u>WOMEN</u>							
<u>Variables in the Equation</u>							
Wife Working Before Move	.13	-.01	.120			.00	
# of Previous Moves	-.09	.02	.154			.02	
Attitude Toward Leaving Last Base	.22	.33	.134			6.24*	
Children Ages 0 to 4	-.07	.15	.144			1.03	
Education	-.14	-.11	.111			.95	
Children Ages 5 to 12	.03	.10	.168			.37	
Children Ages 13 & Over	.17	.08	.138			.31	
Years in Service	-.12	.00	.141			.00	
Attitude Toward Hill	.07	-.13	.139			.85	
Rank	-.11	.10	.162			.35	
Age	-.19	-.10	.169			.35	
Years Married	-.15	-.11	.179			.40	
Children	-.04	.22	.206			1.13	
Total Moderator Variables				.14	.14	1.00	
Pile-up of Life Events	-.37	-.33	.107	.23	.09	1.66	
Reframing	.18	.34	.111	.29	.06	2.02*	
Family Adaptability and Cohesion-D	.27	.29	.099	.35	.06	2.44**	
Self-Focused Coping	-.12	-.22	.106	.38	.03	2.63**	.24
<u>Variables Not in the Equation</u>							
Social Support	-.05	-.05				.17	
Perception	-.02	-.04				.03	
Problem-Focused Coping	.02	.02				.02	
Positive-Focused Coping	.23	.26				3.97	
Social Support-Coping	.03	.03				.06	
Displacement/Denial	-.00	-.00				.00	
Wishful Thinking	-.01	-.01				.01	
Minimization	.07	.07				.36	

*p .05

**p .01

^aFor variables not in the equation, the r value is the partial correlation.

Displacement-Denial (also negative, $p < .0900$). Thus the significant inverse relationship between number of recent life events and satisfaction with life was largely unaffected by controlling for the effects of the moderator variables. However, whereas before accounting for the moderator variables in the women, three other variables (Displacement/Denial, mean FACES, and Perception) were also significantly related, in this instance another variable, Social Support, increased the amount of variance accounted for from 42% of the variance in the first multiple regression to 47% in this instance. Thus, the moderator variables, recent life events and social support accounted for almost half of the variance in the outcome measure.

Using the discrepancy Quality of Life score as the dependent measure (family satisfaction), the results again varied from those of the men (see Table 16). Of the moderator variables, only Attitude toward leaving the Previous Base was significantly correlated with the outcome variable with a Beta coefficient of .33 ($p < .05$). Together, the moderator variables accounted for 14% of the variance ($p < .457$). The independent variables which were significantly correlated after controlling for the influence of these variables were as follows. Total Recent Life Events with a Beta coefficient of -.33 increased the Multiple R to .48 which accounted for an additional 9% of the variance ($p < .082$) although in itself the correlation was a negative .37 ($p < .0029$). Reframing with a Beta coefficient of .34 raised Multiple R to .54 accounting for an additional 6% of the variance ($p < .05$). Discrepancy FACES with a Beta coefficient .29 raised the Multiple R to .59 accounting for an additional 6% of the variance ($p < .01$). Last, Self-Focused Coping which had a Beta coefficient of -.22 raised Multiple R to .62 accounting for a total of 38% of the variance ($p < .01$).

These results are again quite different from those of the men. One of the moderator variables, Attitude toward Leaving the Previous Base, was significantly correlated with the outcome variable. Thus, as the wife's attitude toward leaving the previous base became more negative, the amount of discrepancy between husband's and wife's satisfaction score

became greater. The significant inverse relationship between recent life events and the discrepancy Quality of Life score remained largely unchanged by controlling for the effects of the moderator variables. Thus, as the number of life events decreased, the size of the discrepancy between husband's and wife's satisfaction scores increased. As with the previous multiple regression, the discrepancy FACES was correlated with the discrepancy outcome score. Thus, those husbands and wives who showed greater discrepancy between perception of cohesion and adaptability were likely to show greater discrepancy between satisfaction scores. Also, reframing continued to be positively correlated with the outcome variable after accounting for the effects of the moderator variables. Thus, as wives increased use of the reframing coping variable, the size of the discrepancy between satisfaction scores was likely to increase. This interpretation must be made with extreme caution, however, due to the unreliability of this variable. One additional variable, self-focused coping was inversely correlated with the outcome variable. Thus, as wives increased the use of self-focused coping, the discrepancy between husband's and wife's satisfaction scores tended to decrease. Again, the discrepancy scores were less effective in accounting for variance in the outcome variable than were the mean scores, although they were more effective in accounting for the variance in the women's scores than in the men's

Test of Hypothesis 3

Hypothesis 3 asked to what extent do the scores of husbands and wives on coping, social support and family satisfaction differ (measured by Ways of Coping, Social Support Index and Quality of Life instruments)? Hypothesis 3 and 4 were both tested through Analysis of Variance using a Sex by Time of Move (2 X 2) factorial design for each of the main measures. Results for Hypothesis 3 are presented in Table 17. There were no significant interactions between sex and time of move.

As shown in Table 17, although there were 13 tests or subtests which showed no significant difference between men and women's responses, the following showed

significant differences. The women showed a greater use of several types of coping including Positive Focus ($p < .01$), Social Support ($p < .05$), Displacement/Denial ($p < .01$) and Reframing ($p < .01$). Although Total Social Support did not differ significantly (men showed a greater overall use of social support $p < .07$), the men's use of coworkers for social support did exceed that of the women by a significant level ($p < .001$). Also, the men's use of Problem-Focused Coping was greater than that of the women's by a significant extent ($p < .05$).

Test of Hypothesis 4

Hypothesis 4 asked to what extent do coping skills and levels of family satisfaction at the different points in time after the move differ? The results in Table 18 indicate that only one subtest showed a significant difference between the scores of those men and women who had moved less than 6 months before and for those who had moved more than 6 months before. A significantly greater number of those who had moved less than 6 months

Table 17

Analysis of Variance between Men and Women on Adaptability and Cohesion, Levels of Coping Skills, Social Support, and Family Satisfaction.

Variable	Sex	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F
<u>Adaptability and Cohesion</u>	M	114.05	75.92	1	75.92	.307	.58
	F	115.31					
<u>Family Satisfaction</u>	M	115.85	24.34	1	24.34	.068	.80
	F	116.57					
<u>Problem-Focused Coping</u>	M	20.87	234.83	1	234.83	5.68	.018*
	F	18.62					
<u>Positive-Focused Coping</u>	M	11.88	246.14	1	246.14	8.76	.003**
	F	14.16					
<u>Self-Focused Coping</u>	M	8.79	2.21	1	2.21	.17	.679
	F	9.00					
<u>Social Support-Coping</u>	M	4.83	28.25	1	28.25	4.45	.036*
	F	5.60					
<u>Displacement/Denial</u>	M	5.26	87.90	1	87.90	6.92	.009**
	F	6.66					
<u>Wishful Thinking</u>	M	7.08	40.49	1	40.49	2.48	.117
	F	8.01					

Variable	Sex	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F																																																																
<u>Minimization</u>	M	3.13	9.96	1	9.96	2.71	.101																																																																
	F	3.59						<u>Reframing</u>	M	2.75	21.85	1	21.85	11.76	.001**	F	3.43	<u>Social Support-- Total</u>	M	84.44	185.08	1	185.08	3.30	.071	F	86.43	<u>Church</u>	M	16.61	10.66	1	10.66	.83	.363	F	16.14	<u>CoWorkers</u>	M	11.84	326.32	1	326.32	68.32	.000**	F	14.46	<u>Children</u>	M	6.87	.89	1	.89	.25	.615	F	6.74	<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76
<u>Reframing</u>	M	2.75	21.85	1	21.85	11.76	.001**																																																																
	F	3.43						<u>Social Support-- Total</u>	M	84.44	185.08	1	185.08	3.30	.071	F	86.43	<u>Church</u>	M	16.61	10.66	1	10.66	.83	.363	F	16.14	<u>CoWorkers</u>	M	11.84	326.32	1	326.32	68.32	.000**	F	14.46	<u>Children</u>	M	6.87	.89	1	.89	.25	.615	F	6.74	<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76	1	.76	.37	.543	F	13.20				
<u>Social Support-- Total</u>	M	84.44	185.08	1	185.08	3.30	.071																																																																
	F	86.43						<u>Church</u>	M	16.61	10.66	1	10.66	.83	.363	F	16.14	<u>CoWorkers</u>	M	11.84	326.32	1	326.32	68.32	.000**	F	14.46	<u>Children</u>	M	6.87	.89	1	.89	.25	.615	F	6.74	<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76	1	.76	.37	.543	F	13.20														
<u>Church</u>	M	16.61	10.66	1	10.66	.83	.363																																																																
	F	16.14						<u>CoWorkers</u>	M	11.84	326.32	1	326.32	68.32	.000**	F	14.46	<u>Children</u>	M	6.87	.89	1	.89	.25	.615	F	6.74	<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76	1	.76	.37	.543	F	13.20																								
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	F	14.46						<u>Children</u>	M	6.87	.89	1	.89	.25	.615	F	6.74	<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76	1	.76	.37	.543	F	13.20																																		
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	F	6.74						<u>Relatives</u>	M	5.86	1.52	1	1.52	.98	.324	F	5.68	<u>Groups</u>	M	13.33	.76	1	.76	.37	.543	F	13.20																																												
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<u>Groups</u>	M	13.33	.76	1	.76	.37	.543																																																																
	F	13.20																																																																					

Variable	Sex	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F
<u>Spouse</u>	M	5,22	.43	1	.43	.54	.463
	F	5,32					
<u>Books-TV</u>	M	15,51	.43	1	.43	.41	.522
	F	15,60					
<u>Community</u>	M	9,20	.34	1	.34	.26	.614
	F	9,28					

*p < .05
 **p < .01

Table 18

Analysis of Variance between Two Points of Time after the Move on Adaptability and Cohesion, Level of Coping Skills, Social Support, and Family Satisfaction

Variable	Time of Move	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F
<u>Adaptability and Cohesion</u>	<6 months	114.44	10.14	1	10.14	.04	.840
	>6 months	114.90					
<u>Family Satisfaction</u>	<6 months	115.33	139.53	1	139.53	.39	.534
	>6 months	117.04					
<u>Problem-Focused Coping</u>	<6 months	20.46	80.29	1	80.29	1.94	.165
	>6 months	19.12					
<u>Positive-Focused Coping</u>	<6 months	13.54	51.67	1	51.67	1.84	.177
	>6 months	12.52					
<u>Self-Focused Coping</u>	<6 months	9.20	16.34	1	16.34	1.27	.261
	>6 months	8.61					
<u>Social Support- Coping</u>	<6 months	5.43	8.74	1	8.74	1.38	.242
	>6 months	5.01					
<u>Displacement/Denial</u>	<6 months	5.77	6.11	1	6.11	.48	.489
	>6 months	6.14					
<u>Wishful Thinking</u>	<6 months	7.47	.86	1	.86	.05	.819
	>6 months	7.61					

Variable	Time of Move	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F
<u>Minimization</u>	< 6 months	3.40					
	> 6 months	3.32	.32	1	.32	.09	.770
<u>Reframing</u>	< 6 months	3.25					
	> 6 months	2.93	5.07	1	5.07	2.73	.100
<u>Social Support - Total</u>	< 6 months	85.02					
	> 6 months	85.81	28.21	1	28.21	.50	.479
<u>Church</u>	< 6 months	16.39					
	> 6 months	16.36	.06	1	.06	.00	.948
<u>Coworkers</u>	< 6 months	13.27					
	> 6 months	13.04	2.53	1	2.53	.53	.468
<u>Children</u>	< 6 months	6.66					
	> 6 months	6.94	3.61	1	3.61	1.03	.311
<u>Relatives</u>	< 6 months	5.80					
	> 6 months	5.74	.17	1	.17	.11	.743
<u>Groups</u>	< 6 months	13.04					
	> 6 months	13.48	9.48	1	9.48	4.64	.033*
<u>Spouse</u>	< 6 months	5.24					
	> 6 months	5.30	.15	1	.15	.19	.660

Variable	Time of Move	Mean Score	Sum of Squares	DF	Mean Square	F	Sig F
<u>Books-TV</u>	< 6 months	15.51					
	> 6 months	15.59	.31	1	.31	.30	.585
<u>Community</u>	< 6 months	9.12					
	> 6 months	9.36	2.68	1	2.68	2.04	.155

*p < .05

**p < .01

before filling out the questionnaire indicated a higher usage of special groups they belonged to (such as the Wives Club or Non-Commissioned Officers Club) than those who had moved more than 6 months before ($p < .05$).

Summary of Results

1. The factor analysis on the Ways of Coping Checklist produced 8 factors which were used to produce the following scales; Problem-Focused Coping, Positive Focus/Faith, Self Focus, Social Support, Displacement/Denial, Wishful Thinking, Minimization and Reframing. These scales had many items in common with the scales derived by both Lazarus and Vitaliano although neither had either the Minimization or Reframing Scales.

2. The FACES II factor analysis produced results which did not support the two independent dimensions of Cohesion and Adaptability which David Olson and his associates have integrated into their Circumplex Model. Rather, the original principal components analysis showed that 22 of the 30 items loaded clearly onto one factor and Olson's results could not be duplicated even by limiting the number of factors to 2 or by running separate factor analyses for the Cohesion and Adaptability Scale items. It is not clear whether this was a result of an invalid construct or whether this result is simply a result of the type of subjects used in this study. Because of this and a correlation of .72 between the 2 scales, it was decided to use a total Faces score in the rest of the analyses which would be regarded as one dimension of internal family strengths.

3. The factor analysis of the Social Support questionnaire produced eight factors which were used as the following scales: Spouse, Children, Church and Spiritual Faith, Close Friends and Relatives, Co-workers and A.F., Special Groups, Community and Neighborhood and Other Sources such as Books and T.V. Both the total Social Support Score and individual scale scores were used in subsequent analyses.

4. Family satisfaction, the dependent variable, was measured by the Quality of Life

questionnaire. Factor analysis using principal components analysis produced 10 factors. Dropping the 10th factor which had only one item left the following nine factors: Financial Well Being, Time, Family Life, Neighborhood and Community, Home/Physical Space, Mass Media, Friends and Relatives, Employment, and Religion/Family Education. For the most part, the various dimensions of satisfaction with life delineated by Olson and Barnes were substantiated.

5. In Hypothesis 1, for the husbands, the null hypothesis was rejected as pile-up of life events (FILE) was found to be significant and negatively correlated with mean Quality of Life ($p < .01$) accounting for 26% of the variance. When using discrepancy Quality of Life as the dependent variable, only the FACES discrepancy score was significantly correlated ($p < .01$).

6. In Hypothesis 1, for the wives, using mean Quality of Life as the dependent variable, the null hypothesis was again rejected with Total Life Events (FILE) again negatively correlated with mean Quality of Life ($p < .01$). Other variables which were also found to be significantly correlated were Displacement/Denial (Beta = $-.22$), mean FACES and Perception. Together these 4 variables resulted in a multiple R of $.65$ and accounted for 42% of the variance. Using the discrepancy Quality of Life score as the dependent variable, Total Recent Life Events ($-.37$), discrepancy FACES and Reframing were all significantly correlated with the dependent variable with a multiple R of $.49$ accounting for 25% of the variance.

7. In Hypothesis 2, for the husbands, controlling for the influence of number of previous moves, years married, education, rank, number of children, ages of children, attitude toward Air Force, attitude toward move to new base, number of months since the move, wife's employment, and number of years in the service, using mean Quality of Life as the dependent variable, the null hypothesis was again rejected as Total Recent Life Events was significantly correlated ($p < .001$). Although the moderator variables individually were not significantly related, together ($p < .05$) they produced a Multiple R of

.59, accounting for 35% of the variance.

8. Using the discrepancy Quality of Life score as the dependent measure, controlling for the above moderator variables, neither the moderator variables or the various independent variables were significantly correlated.

9. In Hypothesis 2 for the wives, again controlling for the moderator variables, two variables were found to be significantly correlated with the dependent measure; Total Recent Life Events (Beta = -.52) and Social Support. The null hypothesis was thus rejected with moderator variables and the above independent variables together producing a multiple R of .68 which accounted for 47% of the variance.

10. In Hypothesis 2, using the discrepancy Quality of Life score as the dependent measure, the following independent variables were significantly correlated after controlling for the influence of the moderator variables; Total Recent Life Events, Reframing, Discrepancy FACES and Self-focused Coping (-.12). Together with the moderator variables, these four factors accounted for 38% of the variance with a multiple R of .62.

11. In Hypothesis 3 the null hypothesis was rejected as significant differences were found between husbands and wives on 6 different variables. Wives showed a greater use of several types of coping including Positive Focus, Social Support, Displacement/Denial and Reframing. Husbands, on the other hand, showed a greater use of coworkers for social support and also of problem-focused coping.

12. In Hypothesis 4, the null hypothesis was rejected although a significant difference between the individuals who had moved at different points of time was found for only one variable, use of Special Groups. A significantly greater number of those who had moved less than 6 months before filling out the questionnaire indicated a higher usage of special groups for social support.

CHAPTER V

DISCUSSION

The major purpose of this study was to investigate to what extent the level of coping skills, internal resources, social support, perception and pile-up of life events affect Air Force families' adjustments after relocation. The major objectives were threefold: (a) to assess which of the husbands' and wives' strengths and resources contributed to the family's adjustment to the stress associated with PCs moves, (b) to explore whether wives' levels of coping are critical to family adjustment and (c) to determine if the types and/or levels of coping used are significantly different at two points in time after the move. A secondary objective was an exploration through factor analyses of the construct validity for this population of four of the measures used: FACES, Quality of Life, Ways of Coping Checklist and Social Support Inventory. It was hoped that the results would suggest possible ways to intervene to alleviate the stress of moving for the military family. In addition, as this study was based on the Double ABCX Family Stress Model, the results might provide further empirical support for the model.

This chapter presents the conclusions that have been drawn based both on the results presented thus far and on the 15 interviews done with a subsample of those whose written results were included in the study. In addition, limitations of the study, implications for further research and a conclusion are included in this chapter.

Coping Skills, Internal Resources, Social Support, Perception, and Pile-up of Life Events and Adjustment after Relocation

For both the husbands and the wives, pile-up of life events had a significant inverse relationship with family satisfaction. These results provide clear support for McCubbin, Patterson and Lavee (1985) belief in the effects of accumulated life stressors and strains on families. This relationship was significant even when accounting for moderator variables which might have been expected to affect the relationship.

Whereas for the men, only pile-up of life events was significantly related to the outcome variable; for the women there were differing results. Using the mean Quality of Life as the dependent variable, for the wives, both family system resources and perception appeared to have a positive effect on the family's level of satisfaction. This is in agreement with the findings of McCubbin and his associates (Lavee & McCubbin, 1985; Lavee, McCubbin & Patterson, 1985; McCubbin & Lavee, 1985; McCubbin et al., 1985). It may be, as McCubbin suggests, that the negative effect of pile-up is somewhat buffered by these variables. In addition, however, the level of satisfaction for the wives was also negatively affected by the wife's use of the coping mechanisms of displacement and denial. Thus, in this case, this type of coping would be considered negative in that it appeared to adversely effect adjustment to the move.

When accounting for the effects of the moderator variables, for the women, the results were somewhat different. Again, pile-up of life events was significantly inversely related to satisfaction, however, family system resources, displacement-denial and perception were no longer significantly related, although family system resources and displacement-denial came close to significance. However, social support was positively related to satisfaction. Thus, those women who reported greater sources of social support were more likely to be satisfied with their adjustment after the move. Many of the items which made up the variable of perception were contained in the moderator variables, and it is probable that this variable no longer contributed new information.

It is interesting to note the differences which occurred when using the discrepancy satisfaction score as the dependent variable. Predictably, the discrepancy FACES score was in most cases significantly related to the discrepancy satisfaction score. Thus, couples with large discrepancies in their satisfaction scores were more likely to show discrepancies in their perception of family system resources. Again, for the men, this was the only variable which was significantly related to their dependent variable. For the women, however, in both regression variables, pile-up of life events was negatively related to the

dependent variable. Thus, apparently as pile-up of life events increased, the discrepancy between husband's and wife's scores decreased. It is unclear which direction the change occurred in, however, it is likely, since satisfaction was inversely related to pile-up of life events, that both spouses probably shared lower satisfaction scores. Curiously, for the women, their attitude toward leaving the previous base was positively related to their discrepancy satisfaction score. Thus, the more positive their attitude about leaving the previous base, the more likely they were to show a greater discrepancy with their husband's satisfaction scores. It is unclear as to whether their satisfaction scores were more likely to be higher or lower than their husbands as there was no overall difference in the satisfaction scores between the husbands and wives in this study. In addition, self-focused coping showed a significant inverse relationship to the discrepancy satisfaction score for the women. Thus, as the wives increased their tendency to use such coping techniques as keeping their feelings to themselves or changing something about themselves, their satisfaction scores were more likely to be closer to their husband's satisfaction score. As self-focused coping was negatively correlated with the mean satisfaction score (although not significantly), it is likely that their satisfaction decreased.

Coping and Family Adjustment

As stated above, one of the objectives of this study was to explore whether, as hypothesized, the wife's coping skills might be critical to the A. F. families' adjustment after relocation. As described above, for the regression equations, only displacement-denial showed a significant negative correlation with family satisfaction. Thus, this would be considered to be a maladaptive coping strategy in that increased usage of this style of coping was associated with a decrease in satisfaction with life. This would support the findings of several researchers (Billings & Moos, 1984; Folkman et al., 1986b; Miller et al., 1985; Mitchell et al., 1983) who found that coping styles similar to the displacement/denial coping were associated with increased emotional and somatic

dysfunction.

To further examine whether wife's coping skills might be critical, it is important to examine the differences found between the men's and women's use of coping strategies. As mentioned in the results chapter, women showed a greater use of positive focus, social support (from Ways of Coping Checklist), displacement-denial and reframing. The husbands showed a greater use of problem-focused coping. These results support those previous studies mentioned which have found that males and females differ in types of coping used (Astor-Dubin & Hammen, 1984; Billings & Moos, 1984; Burke & Weir, 1979; Pearlin & Schooler, 1978). In several studies (Billings & Moos, 1984; Folkman, Lazarus, Gruen and DeLongis, 1986a & b; Mitchell et al., 1983; Vitaliano et al., 1985), problem-focused coping has been negatively associated with less severe psychological and/or somatic dysfunction. Thus, the husband's, with their greater use of problem-focused coping are less likely to experience emotional dysfunction. In addition, although one study found emotion-focused coping (similar to positive focus) to be associated with less severe emotional and somatic dysfunction (Billings & Moos, 1984), the use of emotional discharge and avoidance (similar to displacement-denial) has been found in several studies to be associated with psychological and/or somatic dysfunction (Billings & Moos, 1984; Folkman & Lazarus, 1986; Folkman, Lazarus, Gruen & DeLongis, 1986a and b; Mitchell et al., 1983;). It would appear that the wives, with their lower use of adaptive coping and higher use of maladaptive coping, could endanger the family's adjustment to the move. In their latest studies, McCubbin and his associates operationalized the adaptation variable through the use of three measures (a) General well-being (b) Satisfaction and (c) Family distress. It may be that a more global measure of adaptation than the one used with this study, which would include a measure of somatic and psychological symptoms, would more effectively measure the relationship of coping to adaptation.

Adjustment, Coping and Time of Move

As noted in the results chapter, only one difference was found between those individuals who moved more than six months before the time of the study and those who had moved less than six months before. This is somewhat surprising given the literature on relocation. It would be expected that the adjustments in the first several months following the relocation would cause decreased satisfaction with life and increased coping skills. There are several possible explanations for the lack of differences. First, a greater percentage of families in the group which had moved less than six months ago had moved closer to the 6 month time and there were only 4 responses from those families who had moved less than 5 months before. In addition, a smaller percentage of those families who had moved most recently responded. These two factors meant that most of the families who answered in the most-recently moved category, had actually moved several months before the time of the evaluation. A study done with those who had moved within one or two months might show greater differences. Also, as this was a cross-sectional and not a longitudinal design, the two groups were different. It may be that a longitudinal study would be more sensitive to group differences. In addition, it may be that one year is not sufficient for a family to have recovered from the long-term effects described by Sluzki (1979).

The only difference found between the two groups was that a greater number of those who had moved less than 6 months before indicated a higher use of special groups they belonged to. It is likely that the special groups were used to compensate for the loss of friends and community ties following the move. It is probable that participation in special groups is used as a way for Air Force members to meet new people and to feel less socially isolated. As they begin to establish new ties and obligations, it would make sense that they would have less time for or need of special groups.

Interviews with Air Force Families

Interviews were conducted with five couples from each of the original three groups although one extra couple was included for Group 2 since much of one interview was lost when the tape recorder malfunctioned. These families were selected from the 34 couples who volunteered to be interviewed on their initial consent form. Included were 6 Officers, 4 Senior Enlisted and 6 Junior Enlisted families. A structured interview format was used (see Appendix D) and the sessions ranged from one to two hours each depending on how talkative the members were and how many family members were interviewed. For 4 of the families, only the wife was interviewed as either the husband was unavailable or the spouses had separated (2 cases). In four families with teenaged children, the teens were also briefly interviewed.

Although a few of the families felt that they had encountered few problems with their move, most had experienced a number of problems. The problem almost universally experienced was the financial hardship caused by the move. As one master sergeant explained it, "The move cost me every bit of savings. Because I move every 2 years, I never could save any money. I've figured it costs me \$1,000 per person over what the A.F. gives me." Much of the extra expense was incurred because of the cost of temporary living quarters. One man stated, "We spent 6 weeks in a motel waiting to move on base. That's very common. You can count on a minimum of 2 weeks, but usually it's at least 4 to 6 weeks." The only military families who did not incur debts were the ones who had saved money since their last move because they anticipated the extra expenses the next move would bring. The costs ranged from several hundred dollars to over \$7,000 for one officer with 7 children. For the Junior Enlisted personnel who had a low weight allowance, moving meant selling most of their possessions at a loss and replacing them at their next assignment.

Part of the reason for the extra living expenses was the unavailability of temporary living quarters (TLQ) on base. Families complained because there were only 8 units

available and the maximum stay was 10 days. If the TLQ was full or they had used up their time, these families were forced to live in motels until base housing came available or they were able to find housing off base. For some families, furniture was lost, ruined or delayed. For those coming from overseas, they had had to wait several months for their belongings. One family was without their car for 2 months.

The Air Force has set up a sponsor system to help new families obtain information prior to the move and to be welcomed when they arrive. For several families, they had either had no contact from a sponsor or the sponsor had sent the information packet only. This was especially difficult for those families who had no friends or family already living in the area.

All of the teenagers interviewed and several of the wives felt that leaving their friends behind had been very difficult. One wife explained, "Many times military families lose all friends from the past. Sometimes you have to make an effort to hold onto long time friends." One mother stated, "As the kids get older, it's harder. Friendships are more important and they are more involved in school. It takes about a year for the kids to blend in again." Another seasoned wife shared, "It's more difficult starting with no friends. You're anxious at the same time the kids are. You belong nowhere. It takes a couple of months to a year..... you hate it. It's a process." One long-time A.F. wife had experienced such difficulty with this particular move that she sought counseling after coping by shutting herself in the house and closing herself off from others. One husband had increased difficulties with his ulcer. One wife had taken up smoking again. One teenage boy had seen a psychologist because of move-related problems.

The families had used a variety of coping strategies to help to adjust to the move. Several stressed organization and the necessity to prepare ahead such as planning so that housing and transportation would be available and saving money for the move. Others felt that it was important to find out about the area, before the move if possible. To help with the familiarization process, after arriving, they take short trips to familiarize themselves

with the area. In addition, they asked neighbors for recommendations for dentists, hairdressers, etc. Many stressed the need to ask for help if they needed it. Several felt that it was important to get settled in quickly so that the new house would "feel like home." Mothers of young children felt that this was especially helpful. Several wives stressed the necessity of actively seeking new friends by joining churches or clubs as soon as arriving. One mother added that she had learned it was important to take time to say goodbye. She said, "I learned the hard way that leaving without saying goodbye was harder later."

Over half of the families stressed that they had coped by concentrating on having a positive attitude about the move. They did this by accepting things as they happened or by trying to focus on the positive aspects of the move. One mother explained, "I look at it as an adventure. It helps make changes seem desirable." Another added, "I try to view travel as a challenge and an opportunity to learn." One Senior Master Sergeant summed it up by saying, "The mind set is 80% of it. If you want to go, it's good. If you don't, it's terrible." Several mentioned that prayer and their religious faith had been helpful. Others stressed the need to talk things over with the family and reducing tension by working together or allowing for the extra stress experienced by family members.

Families varied as to what had been the most helpful overall in helping them to adjust to the move. For those who were able to have a house-to-house move, this was most helpful. It reduced the extra costs and hassles considerably and decreased the time it took to feel settled. There were 4 families who experienced this type of move. Several others felt that their past experience was most helpful. One Senior Enlisted Officer explained, "Because we've had so many moves, we expected problems and knew when to expect them. It's not as bad as when they're unexpected. You're more prepared to respond." For several families, having friends already in the area had been most helpful. The friends had helped out when necessary and also provided a ready-made social group.

For the most part, the families, although disliking a few things, generally liked Hill AFB and the Utah area. Most commonly mentioned were the scenery and the recreational

activities available. Feelings about the climate were mixed. All of the families with children except for one disliked the schools in Utah. They complained of overcrowding and of the schools being behind in curriculum. In addition, several of the families had had difficulty adjusting to the Mormon influence in Utah. The complaints ranged from their children not feeling accepted at school to disliking having the stores closed on Sundays. The only major complaint about the base was the hospital which was almost universally criticized for disorganization and inadequate facilities which often meant difficulty making appointments and long waits for appointments and medication. Three of the Senior Enlisted Officers disliked their jobs. They felt that at Hill AFB, they received little recognition or responsibility compared to other bases. They felt this was caused by the base being dominated by officers and civilians. One Senior Master Sergeant ended with "An awful lot of chiefs have retired since we've been here."

Interestingly, the husbands interviewed frequently cited job demands as being the main Air Force Stressors. These ranged from long working hours (one airman worked 60 to 70 hours weekly with no overtime because of the shortage of airplane mechanics) to the difficulties of having to learn new jobs or switch to new careers within the Air Force. Other stressors mentioned by both husbands and wives were the separations, moving, frequent TDY's (one man was gone for up to 3 weeks per month). Wives included loss of friends, distance from family and "Home", and difficulties in pursuing education or careers. One couple in which both members were Air Force personnel felt that separate assignments were a major stressor for dual career families. One young A.F. woman spent 6 months apart from her husband and finally, during her 7th month of pregnancy, was allowed to transfer to join her husband but had to pay for her own move.

Families had mixed opinions on how helpful they felt that the A.F. was with the move. Although several felt that the A. F. did nothing to help, those sources most recognized were 1) giving the husband time off to help with the move 2) temporary housing 3) the availability of household necessities through the Family Service Center and

4) providing sponsors and travel allowances. Most families felt that the Air Force could help more effectively by 1) providing more temporary housing or making housing more readily available so that the long waits could be avoided 2) paying the members more to offset the costs of the moves and 3) increasing the effectiveness of the sponsor program. Several cited the differences between what the military and what corporations and civil service pay for moves including realtor costs and temporary living costs, and sometimes flying the couple to the new location to locate housing prior to the move.

Limitations

There are a number of limitations recognized with this study. First, although the sample was randomly selected from all those who moved to Hill AFB within the past year, those who agreed to participate in the study were volunteers. Although the available sample did not appear to differ according to rank (and thus socio-economic status and education), the sample is likely to be biased somewhat because of differences from those who chose not to participate. To improve the rate of volunteering and thus limit the amount of bias, the request for volunteering to participate in this study was first made by a letter on Family Life Department letterhead and volunteers were paid a bonus to compensate them for the time taken.

Second, the study was based on self-report data and self-report data are accurate only to the degree that the self perceptions of the participants are accurate. To ensure that participants did not distort data because of demand characteristics, they were assured of anonymity and confidentiality.

A third limitation of this study is the correlational design. This design restricts interpretation of the data as one cannot assume a cause and effect relationship but can say only that a relationship exists. Another criticism directed against correlational studies is that they attempt to break down complex behaviors into simpler components (Borg & Gall, 1979). The Double ABCX model of family stress and adaptation is very complex and it is

likely that multiple regression does not adequately explain the relationship between the variables. Recently, McCubbin and his associates have expanded this model further and it is now called the T-Double ABCX Model of Family Adjustment and Adaptation (McCubbin & Thompson, 1987), thus introducing even more variables. As the T or Typology factor appears to be largely based on Olson's Circumplex Model, this researcher questions the validity of this portion of the model. It may be that techniques such as path analysis or structural equation modeling will permit researchers to examine simultaneous relations among the variables in the model, to differentiate between direct effects and indirect effects and to rule out spurious effects.

A fourth limitation applies to the generalizability of the results of this study. The target sample were A.F. personnel at Hill A.F.B. who had moved within the past year. Although this base is comparable to other stateside Air Force Bases, the increased number of stressors overseas make generalizability to overseas personnel difficult. In addition, other branches of the military which differ in levels of education and ratio of enlisted men to officers make generalizability to all military personnel difficult.

Perhaps the greatest limitations involve the instrumentation and also the difficulties of obtaining a true family measure. Most questionable is the measurement of family adaptation. Although Olson and his associates argue that family satisfaction reflects the mood and happiness with the overall functioning of the family, it is unclear whether this adequately measures the global concept of family adaptation. Including further measures, as did Lavee and McCubbin (1985) who included family satisfaction, psychological and physical well-being and evidence of family distress as a composite measure of adaptation insures that the concept is more global but increases the risk of confounding the variables, especially elements measured by FILE, the pile-up of life events.

And the problem of how to obtain a true family measure remains unsolved. As pointed out by Fisher (1976, 1982), an individual family member's response to a questionnaire or scale is not necessarily representative of how that family operates. As

noted by Olson and his associates (Barnes & Olson, 1985), frequently rather low levels of agreement are found between the reports of members within a given family. It is not clear whether these differences represent measurement error or different realities of each family member. As Barnes and Olson point out, "The existence of such discrepancies presents a considerable methodological challenge. One of the crucial questions is how to reconcile the varying reports of family members into some kind of unified score that might represent the family as a unit without obliterating the distinctions between them" (p. 442). This study used mean and discrepancy scores for two of the variables and individual scores for the other variables. Lavee, McCubbin and Patterson (1985) attempted to solve this difficulty by using the husbands' data for pretravel strains and family distress and the wife's data for postarrival hardships, family life events, and family cohesion and adaptability. For all other measures, the collected data from both family members and used mean family scores. There was no rationale given for this method of measuring the family. It is clear that the problem of assessing multiple family members and obtaining a meaningful family level analysis remains an important methodological issue.

Implications for Further Research

The results of this study suggested several areas which could be explored or clarified through future research. First, though it appears that the Double ABCX family stress model has been substantiated through correlational studies, without experimental studies, causal relationships cannot be established. Experimental studies which examine each of the variables in the model which appear to be significant, could help to determine if, indeed, there is a causal relationship.

Second, it has been suggested by McCubbin and his associates that the negative effects of pile-up of life events are buffered by perception and by adaptation and cohesion. One further way to test this assumption might be to split those who had experienced a high number of life events into two groups, those with high satisfaction and those with low. By

examining the differences between the two groups, it might be possible to discover variables which work to buffer the effects of pile-up.

Third, the results of this study suggest that husbands and wives are affected differently by relocation and that their level of satisfaction is affected by different variables. These results, along with the differences between husbands and wives found in coping styles, adds support to Boss, McCubbin and Lester's (1979) contention that individual psychological variables need to be considered along with system

variables in the development of family stress theory. Massey (1986) in his discussion of what constitutes the family system, also warned against obscuring the dynamics of individual members of the system. Given the problems mentioned above regarding the measurement of the family, it is clear that further research regarding effective ways to achieve a meaningful family level analysis are important problems for future researchers to study. These results suggest that individual psychological variables must be considered along with system level variables. Thus, the results of this study support Fisher's (1982) assertion that "there is a crying need for meaningful, multidimensional family assessment" (p. 319).

Fourth, the results of this study suggest that A.F. wives's coping might be critical to satisfaction and also that the wives, in general, might be less well adapted because of their lower usage of problem-solving coping and their increased usage of displacement and denial. An experimental study done which incorporates a coping skills training component such as the one designed by Brown (1975, 1980) would be an effective way to determine a causal relationship and a possible way to buffer the impact of the stress of military life.

Last, although this study did not show clear differences between groups at different points of time after the move, it is not clear based on methodological weaknesses and problems with the sample, whether these differences do not exist. A longitudinal study which can examine the same group at different points in time would be an effective way for future researchers to examine this problem.

Conclusions

It is clear from this study that pile-up of life events has a significant and negative impact on couple satisfaction. Both the husbands' and wives' level of relational satisfaction remained unchanged even when accounting for moderator variables which, theoretically, were expected to affect the relationship.

In addition, the level of couple satisfaction, as assessed from the family satisfaction measure, is influenced differently for husbands and wives. For husbands, the only variable to relate significantly with satisfaction was pile-up of life events. The level of satisfaction for wives, however, was influenced by family system resources, perception, social support and the use of the ego defense mechanisms of displacement and denial. Complicating this result was the fact that the two outcome measures used, mean family satisfaction and discrepancy satisfaction, showed different relationships with the independent variables used. Thus, it appears an effective family-level measure would need to incorporate not only mean scores, but would also need to take into account the discrepancy between their scores.

The challenge to maintain an acceptable level of mutual satisfaction is complicated by the fact that the level of satisfaction is affected differentially for males and females. This situation increases the necessity for couples to acquire and utilize communication and empathy skills in order to enhance their understanding of one another. Although the question as to whether or not such communication and empathy exists in military couples is yet to be ascertained, it can logically be surmised that as stress increases, communication and empathy decrease.

Related to the above conclusion is the fact that only one coping strategy was significantly related to couple satisfaction; namely, displacement and denial. As previously indicated, displacement and denial were used to a greater extent by the wives and resulted in maladaptive coping. Thus, the overreliance on these ego defense mechanisms in

ability to adjust to the move. While it may be true that wives' use of positive-focused coping and social support could partially moderate this effect, in general, the wives appear to be less able to cope with the stresses associated with relocation than do their husbands.

Overall, it can be concluded that military couples experiencing high levels of stress and strain are likely to find it a constant challenge to maintain an acceptable level of relational satisfaction. It is clear that Air Force life is stressful in general and that relocations add to this stress. It is remarkable that so many families are able to adapt to the Air Force lifestyle and able to cope with the many challenges it presents. It is hoped that rather than conclude that there is no need for change, the Air Force will instead view this as a reflection of the spirit and capability of the men and women who comprise the Air Force family and will draw on their experiences to help those who are adapting less successfully.

Implications for Air Force Interventions

The results of this study and the supporting interviews with Air Force families illustrate the stressful nature of life in the military in general and of relocations in particular. They are in agreement with Bowen's (1984) conclusion that many Air Force families are experiencing high levels of stress. Due to Bowen's other finding that family satisfaction with Air Force life has an effect on mission capability by increasing readiness, improving job morale, increasing family support of the member's commitment to the Air Force, and increasing levels of retention, it is in the best interests of the Air Force that they address ways to alleviate the stress of moving.

Clearly, moving is a significant financial stressor for military families. One way that the military can reduce the financial strain is to reduce the frequency of moving. This may be addressed indirectly by a recent Air Force decision to move personnel only when necessary (Ginovsky, 1988). Although this policy was made based on shortages of transportation money, it will aid Air Force families by causing them to have to bear the extra costs of moving less frequently. The Air Force could also help families to experience

less financial distress by paying families an amount which will more fairly compensate them for extra expenses. Also, they could provide more temporary quarters which could provide temporary housing at lower cost than in a regular motel.

The Air Force has done much to provide added support for families including the opening of Family Support Centers (FSC) Air Force wide. Bowen's (1984) implementation and evaluation of the four prototype Family Support Centers showed that the FSC has become an integral part of the base human service delivery system, especially for married members and civilian spouses. Recently, the Air Force has increased services provided by the FSC including job placement programs for spouses, family crisis referral services and volunteer bureaus (Dalton, 1988b). Richard E Carver, the A.F. assistant secretary for manpower and reserve affairs, is focusing on the FSC as "a means by which the A.F. can step up to what are some of the key quality-of-life issues" (Dalton, 1988b, p. 24).

One of the services included in the FSC model is relocation assistance. Given the results of this study, it appears that many families and especially the wives, could benefit from relocation assistance. It was apparent from the interviews that many of the senior service members no longer experienced moves as stressful because they had learned from the experience of past moves, thus learning both to anticipate problems and to plan ahead so as to avoid problems encountered in earlier moves. A program which would provide educational seminars before relocation could discuss problems and teach problem-solving techniques to prevent families from having to learn from past mistakes. This would be especially useful to junior personnel who had not experienced a number of moves. Using seasoned Air Force spouses would provide this program with credibility and acceptance. In addition, a program after relocation could provide a number of functions: to help

acquaint newcomers with base and area resources and information, to provide newcomers with a list of groups and activities which could help to alleviate the loneliness experienced in the first few months after the move, and to teach coping skills training so that more adaptive strategies could be used.

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APPENDIXES

Appendix A

Letter of Authorization to Conduct Survey



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 2849TH AIR BASE GROUP (AFLC)
HILL AIR FORCE BASE, UTAH 84056

REPLY TO
ATTN OF: CC

OCT 23 1983

SUBJECT: Authorization to Conduct Survey

TO: Mrs Mary Olsen

Authority is hereby given for you to conduct your survey on the effects of relocation-related stress on military families. This approval is contingent on the Air Force receiving a copy of your results and conclusion. My staff agencies are prepared to render all possible assistance in helping you to complete this survey. Good Luck with this survey and in future endeavors.

Joseph H. Battaglia

JOSEPH H. BATTAGLIA
Colonel, USAF
Commander

AFLC - Lifeline of the Aerospace Team

Appendix B

Letter from Utah State University



UTAH STATE UNIVERSITY · LOGAN, UTAH 84322

COLLEGE OF FAMILY LIFE

DEPARTMENT OF
FAMILY AND
HUMAN DEVELOPMENT
UMC 29

During the next few weeks, you will be contacted by telephone or mail and asked if you would be willing to participate in a research study concerning the effects of moving on Air Force families. The study is being conducted by Mary Olsen, an Air Force widow who is a Utah State University doctoral student working with us.

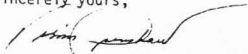
The purpose of the study is twofold: 1) to discover in what ways families are affected by moving, and 2) to discover what helps families to cope successfully after the move.

Your name has been randomly selected to represent a group of Hill Air Force families who have moved during the past year. Thus, your input is very important.

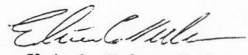
Both you and your spouse will be asked to fill out questionnaires covering several factors found to affect adjustment to stress in families. To show appreciation for the time you take to complete this, a bonus of \$10 will be paid to each couple who complete the questionnaires within the week.

We feel that this study is worthwhile and urge you to participate. Thank you for your consideration.

Sincerely yours,



D. Kim Openshaw, Ph.D.
Assistant Professor,
Family & Human Development,
Coordinator, Marriage & Family
Therapy



Elwin C. Nielsen, Ph.D.
Associate Professor,
Psychology

DKO/slc

Appendix C

Cover Letter

Mary G. Olsen
52 198th Pl. S.E.
Bellevue, WA. 98008
(206) 746-9681

Dear _____.

During the last two weeks, you received a letter from Dr. Kim Openshaw and Dr. Elwin Nielsen of Utah State University explaining that you had been selected to represent Hill Air Force families who have moved here during the past year. I hope that you will consider participating in this research project. Enclosed are the questionnaires which you will need to complete if you consent to joining the study. As explained in the letter you received, the major purpose of this study is to examine the effects of moving on Air Force families. The results should provide valuable information about ways to help families who have difficulties in adjusting to PCS moves.

Your participation in this research is strictly voluntary and all information will be kept confidential. In fact, unless you fill in the blank requesting willingness to be interviewed, no identifying information will be requested on the survey forms that you will be asked to complete.

Answering all of the forms should take no longer than two hours since, even though there appear to be many pages, each questionnaire requires you to merely circle or check off items. Since an important part of this study is to include information from both the husband and wife so as to consider all factors which contribute to adjustment to PCS moves, each of you will need to fill out a set of questionnaires. The set marked with the H codes are for the husbands and the W codes for the wives in the study.

Please read the instructions at the top of each form carefully. It is very important that you answer every item. It is important that you answer

the questionnaires within the next few weeks as one of the selection factors was the time since your move. You may return the materials by mail using the enclosed address sticker and I will reimburse you the mailing costs. Or, if this is inconvenient and I have not heard from you in two weeks, my assistant Mary Doty (752-6690) will contact you by telephone to arrange a pick up time. To show my appreciation for your participation, an incentive bonus of \$10 will be given to all couples who complete the questionnaires in the required time.

At the conclusion of the study, I would be happy to mail a brief summary report. If you would like a copy, please indicate so at the bottom of this letter. Also, much valuable information can be gained from individuals who would be willing to give a more detailed personal interview of about an hour. If you would be willing to participate in such an interview, please indicate this below or contact Louise Tarr (776-4824). Louise is an Air Force wife who has agreed to conduct the interviews since I had to move before receiving final Air Force permission for my study.

Thank you very much for your participation in this project. Your help will aid in the understanding of A.F. families' reactions to PCS moves.

Sincerely yours,

Mary G. Olsen

CONSENT

We have read the above and agree to participate in this study.

NAME	DATE	NAME	DATE
------	------	------	------

INTERVIEW

I would be willing to participate in a personal interview. Yes No
 You can reach me at the following number: _____

SUMMARY

I would like to have a summary sent to me: Yes No
 Please send it to the following address: _____

Appendix D
Structured Interview

STRUCTURED INTERVIEW

1. How long ago did you move here?
2. How much advance notice did you have before the move?
3. Where did you come from? How long were you stationed there?
4. How did you feel about leaving your last base?
5. Have you lived in this area before?
6. How did you feel about coming to Hill Air Force Base? At present, how do you feel about being here at Hill Air Force Base?
7. What do you like about HAFB? What do you dislike about it?
8. What sorts of problems did you encounter because of this move?
9. What coping behaviors worked best in responding to these problems?
10. What coping behaviors did not work well and why?
11. Which member of the family adjusted best to the move? Worst?
12. What was the most helpful overall in adjusting to the move?
13. How did this move compare to prior moves?
14. What has the Air Force done to help with the move?
15. What more could the Air Force do to make moves less stressful?
16. What coping behaviors would you recommend to other Air Force families prior to, during and after a move?
17. What are the four most important stressors of Air Force life?
18. Families are continually struggling to achieve a sense of balance and fit with the Air Force and its lifestyle. We call this adaptation. Do you feel that you have adapted to the Air Force lifestyle? Why?
19. What have you done to help you to adapt?

20. What has the Air Force done to help you to adapt?
21. What can the Air Force do as a community to help with adaptation?
22. Do you have any further information which would be useful or helpful in regard to this study?
23. Do you have any questions about this study?
24. What are your feelings about this study?

Appendix E
Demographic Data

DEMOGRAPHIC DATA

1. AGE
 ___ Under 21
 ___ 21 - 30
 ___ 31 - 40
 ___ 41 +
2. SEX
 ___ Male
 ___ Female
3. WHERE BORN?
 ___ U.S.
 ___ Far East
 ___ Europe
 ___ Other _____
4. NUMBER OF YEARS MARRIED
 ___ Under 2
 ___ 2 - 5
 ___ 6 - 10
 ___ 11 - 15
 ___ 16 +
5. RANK OF HUSBAND
 (if A.F. member)
 ___ Junior Enlisted
 ___ Senior Enlisted
 ___ Officer
 ___ Not Applicable
6. NUMBER OF YEARS IN SERVICE
 ___ 0 - 4
 ___ 5 - 10
 ___ 11 - 15
 ___ 16 - 20
 ___ 20 +
7. RANK OF WIFE
 (if A.F. member)
 ___ Junior Enlisted
 ___ Senior Enlisted
 ___ Officer
 ___ Not Applicable
8. NUMBER OF YEARS IN SERVICE
 ___ 0 - 4
 ___ 5 - 10
 ___ 11 - 15
 ___ 16 - 20
 ___ 20 +
9. NUMBER OF PREVIOUS MARRIAGES
 ___ 0
 ___ 1
 ___ 2
 ___ 3 +
10. NUMBER OF CHILDREN
 ___ 0
 ___ 1
 ___ 2
 ___ 3
 ___ 4
 ___ 5
11. AGES OF CHILDREN STILL AT HOME

12. RACE
 ___ Black
 ___ Oriental
 ___ Hispanic
 ___ Amer. Indian
 ___ White
 ___ Other
13. EDUCATION
 ___ Less than 12 years
 ___ High School Graduate
 ___ Some college
 ___ Bachelor's Degree
 ___ Graduate Training
14. GENERAL HEALTH
 ___ Very Poor
 ___ Poor
 ___ Fair
 ___ Good
 ___ Excellent
15. RELIGION
 ___ Catholic
 ___ Jewish
 ___ Protestant
 ___ Mormon
 ___ Other
16. NUMBER OF PREVIOUS MOVES
 ___ 0
 ___ 1
 ___ 2
 ___ 3
 ___ 4
 ___ 5
17. HOW LONG AGO DID YOU MOVE TO HILL
 ___ Under 4 months
 ___ 5 - 8 months
 ___ 9 - 12 months
 ___ 12 months +
18. WIFE'S JOB BEFORE MOVE
 ___ Full Time
 ___ Part Time
 ___ Unemployed
 ___ Not Applicable
 ___ Type of Job _____
19. WIFE'S JOB AFTER MOVE
 ___ Full Time
 ___ Part Time
 ___ Unemployed
 ___ Not applicable
 ___ Type of Job _____

DEMOGRAPHIC DATA - 2 -

20. HOW DID YOU FEEL ABOUT LEAVING YOUR PREVIOUS BASE OR HOME?
- Very negative
 Negative
 Mixed emotions
 Neutral
 Positive
 Very positive
21. HOW DID YOU FEEL ABOUT MOVING TO HILL A.F.B.?
- Very negative
 Negative
 Mixed emotions
 Neutral
 Positive
 Very Positive
22. HOW LONG DID YOU KNOW ABOUT THE MOVE BEFORE MOVING?
- Less than one month
 2 - 3 months
 4 - 6 months
 Over 6 months
23. WHERE DO YOU LIVE NOW?
- On Base
 Apartment
 Rent a house
 Own a house
24. HOW MUCH PREVIOUS EXPOSURE DID YOU HAVE TO UTAH?
- None
 Have visited Utah before
 Have lived here before
25. DID YOU KNOW ANYONE HERE?
- No one
 Close relatives
 Distant relatives
 Friends
26. HOW WOULD YOU DESCRIBE YOUR EMOTIONAL ADJUSTMENT TO THE MOVE?
- Very Good
 Good
 Fair
 Poor
 Very Poor
27. WHAT IS YOUR ATTITUDE TOWARD THE A.F.?
- Very Good
 Good
 Fair
 Poor
 Very Poor
28. WHAT FACTORS HAVE HELPED YOU TO ADJUST TO THE MOVE THE MOST?
- _____
- _____
- _____
29. WHAT WAS HARDEST ABOUT THE MOVE?
- _____
- _____
- _____

Appendix F

Family Adaptability and Cohesion Evaluation Scales (FACES II)

FACES II ITEMS

by

David H. Olson, Joyce Portner, and Richard Bell

1. Family members are supportive of each other during difficult times.
2. In our family, it is easy for everyone to express his/her opinion.
3. It is easier to discuss problems with people outside the family than with other family members.
4. Each family members has input in major family decisions.
5. Our family gathers together in the same room.
6. Children have a say in their discipline.
7. Our family does things together.
8. Family members discuss problems and feel good about the solutions.
9. In our family, everyone goes his/her own way.
10. We shift household responsibilities from person to person.
11. Family members know each other's close friends.
12. It is hard to know what the rules are in our family.
13. Family members consult other family members on their decisions.
14. Family members say what they want.
15. We have difficulty thinking of things to do as a family.
16. In solving problems, the children's suggestions are followed.
17. Family members feel very close to each other.
18. Discipline is fair in our family.
19. Family members feel closer to people outside the family than to other family members.
20. Our family tries new ways of dealing with problems.
21. Family members go along with what the family decides to do.
22. In our family, everyone shares responsibilities.
23. Family members like to spend their free time with each other.
24. It is difficult to get a rule changed in our family.
25. Family membes avoid each other at home.
26. When problems arise, we compromise.
27. We approve of each other's friends.
28. Family members are afraid to say what is on their minds.
29. Family members pair up rather than do things as a total family.
30. Family members share interests and hobbies with each other.

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Family Social Science
University of Minnesota
297 McNeal Hall
St. Paul, Minnesota 55108

FACES II ANSWER SHEET

INSTRUCTIONS: Fill in Part I completely, answering each question as you would describe your family now. Then complete Part II, answering each question as you would like your family to be. Please answer all questions, using the following scale:

1	2	3	4	5
ALMOST NEVER	ONCE IN AWHILE	SOMETIMES	FREQUENTLY	ALMOST ALWAYS

PART I

HOW WOULD YOU DESCRIBE YOUR FAMILY NOW?

- | | |
|----------|----------|
| 1. ____ | 16. ____ |
| 2. ____ | 17. ____ |
| 3. ____ | 18. ____ |
| 4. ____ | 19. ____ |
| 5. ____ | 20. ____ |
| 6. ____ | 21. ____ |
| 7. ____ | 22. ____ |
| 8. ____ | 23. ____ |
| 9. ____ | 24. ____ |
| 10. ____ | 25. ____ |
| 11. ____ | 26. ____ |
| 12. ____ | 27. ____ |
| 13. ____ | 28. ____ |
| 14. ____ | 29. ____ |
| 15. ____ | 30. ____ |


PART II

HOW WOULD YOU LIKE YOUR FAMILY TO BE?

- | | |
|----------|----------|
| 31. ____ | 46. ____ |
| 32. ____ | 47. ____ |
| 33. ____ | 48. ____ |
| 34. ____ | 49. ____ |
| 35. ____ | 50. ____ |
| 36. ____ | 51. ____ |
| 37. ____ | 52. ____ |
| 38. ____ | 53. ____ |
| 39. ____ | 54. ____ |
| 40. ____ | 55. ____ |
| 41. ____ | 56. ____ |
| 42. ____ | 57. ____ |
| 43. ____ | 58. ____ |
| 44. ____ | 59. ____ |
| 45. ____ | 60. ____ |

Appendix G

Family Inventory of Life Events and Changes (FILE)


 University of Minnesota
 Family Social Science
 290 McNeal Hall
 St. Paul, MN 55108
 Medical Education and Research
 Association of
 Gracie Children's Hospital

HD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FILE

Family Inventory of Life Events and Changes

Hamilton I. McCubbin Joan M. Patterson Lance R. Wilson



Family Health Program
 FORM C
 1381
 © H. McCubbin

PURPOSE

Over their life cycle, all families experience many changes as a result of normal growth and development of members and due to external circumstances. The following list of family life changes can happen in a family at any time. Because family members are connected to each other in some way, a life change for any one member affects all the other persons in the family to some degree.

"FAMILY" means a group of two or more persons living together who are related by blood, marriage or adoption. This includes persons who live with you *and* to whom you have a long term commitment.

DIRECTIONS

"DID THE CHANGE HAPPEN IN YOUR FAMILY?"

Please read each family life change and decide whether it happened to any member of your family—including you.

• DURING THE LAST YEAR

First, decide if it happened any time during the last 12 months and check YES or NO.

During Last 12 Months	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

• BEFORE LAST YEAR

Second, for *some family changes* decide if it happened any time before the last 12 months and check YES or NO. It is okay to check YES twice if it happened both times—before last year and during the past year.

Before Last 12 Months	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?		FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?	
	During Last 12 Months Yes No	Before Last 12 Months Yes No		During Last 12 Months Yes No	Before Last 12 Months Yes No
II. FAMILY STRAINS			12. Increased difficulty in managing infants (0-1 yr.)	<input type="checkbox"/>	<input type="checkbox"/>
Increase of husband/father's time away from family	<input type="checkbox"/>	<input type="checkbox"/>	13. Increase in the amount of "outside activities" which the children are involved in	<input type="checkbox"/>	<input type="checkbox"/>
Increase of wife/mother's time away from family	<input type="checkbox"/>	<input type="checkbox"/>	14. Increased disagreement about a member's friends or activities	<input type="checkbox"/>	<input type="checkbox"/>
A member appears to have emotional problems	<input type="checkbox"/>	<input type="checkbox"/>	15. Increase in the number of problems or issues which don't get resolved	<input type="checkbox"/>	<input type="checkbox"/>
A member appears to depend on alcohol or drugs	<input type="checkbox"/>	<input type="checkbox"/>	16. Increase in the number of tasks or chores which don't get done	<input type="checkbox"/>	<input type="checkbox"/>
Increase in conflict between husband and wife	<input type="checkbox"/>	<input type="checkbox"/>	17. Increased conflict with in-laws or relatives	<input type="checkbox"/>	<input type="checkbox"/>
Increase in arguments between parents and children	<input type="checkbox"/>	<input type="checkbox"/>	II. MARITAL STRAINS		
Increase in conflict among children in the family	<input type="checkbox"/>	<input type="checkbox"/>	18. Spouse/parent was separated or divorced	<input type="checkbox"/>	<input type="checkbox"/>
Increased difficulty in managing teenage children	<input type="checkbox"/>	<input type="checkbox"/>	19. Spouse/parent has an "affair"	<input type="checkbox"/>	<input type="checkbox"/>
Increased difficulty in managing school age children (6-12 yrs.)	<input type="checkbox"/>	<input type="checkbox"/>	20. Increased difficulty in resolving issues with a "former" or separated spouse	<input type="checkbox"/>	<input type="checkbox"/>
Increased difficulty in managing preschool age children (2½-6 yrs.)	<input type="checkbox"/>	<input type="checkbox"/>	21. Increased difficulty with sexual relationship between husband and wife	<input type="checkbox"/>	<input type="checkbox"/>
Increased difficulty in managing toddlers (1-2½ yrs.)	<input type="checkbox"/>	<input type="checkbox"/>			

Please turn over and complete 8

3-2

FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?				FAMILY LIFE CHANGES	DID THE CHANGE HAPPEN IN YOUR FAMILY?			
	During Last 12 Months		Before Last 12 Months			During Last 12 Months		Before Last 12 Months	
	Yes	No	Yes	No		Yes	No	Yes	No
III. PREGNANCY AND CHILDBEARING STRAINS					VI. ILLNESS AND FAMILY "CARE" STRAINS				
22. Spouse had unwanted or difficult pregnancy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48. Parent/spouse became seriously ill or injured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. An unmarried member became pregnant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	49. Child became seriously ill or injured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. A member had an abortion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50. Close relative or friend of the family became seriously ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. A member gave birth to or adopted a child	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	51. A member became physically disabled or chronically ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IV. FINANCE AND BUSINESS STRAINS					52. Increased difficulty in managing a chronically ill or disabled member	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Took out a loan or refinanced a loan to cover increased expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	53. Member or close relative was committed to an institution or nursing home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Went on welfare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	54. Increased responsibility to provide direct care or financial help to husband's and/or wife's parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Change in conditions (economic, political, weather) which hurts the family business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	55. Experienced difficulty in arranging for satisfactory child care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Change in Agriculture Market, Stock Market, or Land Values which hurts family investments and/or income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	VII. LOSSES				
30. A member started a new business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	56. A parent/spouse died	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Purchased or built a home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	57. A child member died	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. A member purchased a car or other major item	<input type="checkbox"/>	<input type="checkbox"/>			58. Death of husband's or wife's parent or close relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Increasing financial debts due to over-use of credit cards	<input type="checkbox"/>	<input type="checkbox"/>			59. Close friend of the family died	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Increased strain on family "money" for medical/dental expenses	<input type="checkbox"/>	<input type="checkbox"/>			60. Married son or daughter was separated or divorced	<input type="checkbox"/>	<input type="checkbox"/>		
35. Increased strain on family "money" for food, clothing, energy, home care	<input type="checkbox"/>	<input type="checkbox"/>			61. A member "broke up" a relationship with a close friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Increased strain on family "money" for children's education	<input type="checkbox"/>	<input type="checkbox"/>			VIII. TRANSITIONS "IN AND OUT"				
37. Delay in receiving child support or alimony payments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	62. A member was married	<input type="checkbox"/>	<input type="checkbox"/>		
V. WORK-FAMILY TRANSITIONS AND STRAINS					63. Young adult member left home	<input type="checkbox"/>	<input type="checkbox"/>		
38. A member changed to a new job/career	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	64. A young adult member began college for post high school training	<input type="checkbox"/>	<input type="checkbox"/>		
39. A member lost or quit a job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	65. A member moved back home or a new person moved into the household	<input type="checkbox"/>	<input type="checkbox"/>		
40. A member retired from work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	66. A parent/spouse started school for training program after being away from school for a long time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. A member started or returned to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	IX. FAMILY LEGAL VIOLATIONS				
42. A member stopped working for extended period (e.g., laid off, leave of absence, strike)	<input type="checkbox"/>	<input type="checkbox"/>			67. A member went to jail or juvenile detention	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Decrease in satisfaction with job/career	<input type="checkbox"/>	<input type="checkbox"/>			68. A member was picked up by police or arrested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. A member had increased difficulty with people at work	<input type="checkbox"/>	<input type="checkbox"/>			69. Physical or sexual abuse or violence in the home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. A member was promoted at work or given more responsibilities	<input type="checkbox"/>	<input type="checkbox"/>			70. A member ran away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. Family moved to a new home/apartment	<input type="checkbox"/>	<input type="checkbox"/>			71. A member dropped out of school or was suspended from school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. A child/adolescent member changed to a new school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Appendix H
Quality of Life Scale

QUALITY OF LIFE

Parent Form

David H. Olson & Howard L. Barnes

Please circle the number indicating your level of satisfaction with each area.

HOW SATISFIED ARE YOU WITH:	Dissatisfied	Somewhat Dissatisfied	Generally Satisfied	Very Satisfied	Extremely Satisfied
1. Your family?	1	2	3	4	5
2. Your marriage?	1	2	3	4	5
3. Your children?	1	2	3	4	5
4. Number of children in your family?	1	2	3	4	5
5. Your relationship with relatives (aunts, uncles, grandparents, etc.)?	1	2	3	4	5
6. Your friends?	1	2	3	4	5
7. Your own health?	1	2	3	4	5
8. Health of other family members?	1	2	3	4	5
9. Your current housing arrangement?	1	2	3	4	5
10. Your household responsibilities?	1	2	3	4	5
11. Other family members' household responsibilities?	1	2	3	4	5
12. Space for your own needs?	1	2	3	4	5
13. Space for your family needs?	1	2	3	4	5
14. The amount of education you have?	1	2	3	4	5
15. The educational programs designed to improve marriage and family life?	1	2	3	4	5
16. Amount of free time?	1	2	3	4	5
17. Time for self?	1	2	3	4	5
18. Time for family?	1	2	3	4	5
19. Time for housework?	1	2	3	4	5
20. Time for earning money?	1	2	3	4	5
21. The religious life of your family?	1	2	3	4	5

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	Disatisfied	Somewhat Dissatisfied	Generally Satisfied	Very Satisfied	Extremely Satisfied
22. The religious life in your community?	1	2	3	4	5
23. Your principal occupation (job)?	1	2	3	4	5
24. Your job security?	1	2	3	4	5
25. The amount of time family members watch TV?	1	2	3	4	5
26. The quality of TV programs?	1	2	3	4	5
27. The quality of movies?	1	2	3	4	5
28. The quality of newspapers and magazines?	1	2	3	4	5
29. Your level of income?	1	2	3	4	5
30. Money for family necessities?	1	2	3	4	5
31. Your ability to handle financial emergencies?	1	2	3	4	5
32. Amount of money you owe (loans, mortgage, credit cards)?	1	2	3	4	5
33. Level of saving?	1	2	3	4	5
34. Money for future needs of family?	1	2	3	4	5
35. The schools in your community?	1	2	3	4	5
36. The shopping in your community?	1	2	3	4	5
37. The safety in your community?	1	2	3	4	5
38. The neighborhood you live in?	1	2	3	4	5
39. The recreational facilities (parks, play grounds, programs, etc.)?	1	2	3	4	5
40. The health care services?	1	2	3	4	5

Please check to be sure you have answered every question.

Appendix I

Ways of Coping Checklist (Revised)

WAYS OF COPING CHECKLIST (Revised)

Below is a list of ways people cope with a wide variety of stressful events. Please indicate by circling the appropriate number the strategies you are using in dealing with your permanent change of station (PCS) move.

	STRATEGIES USED TO COPE WITH PCS MOVE			
	Does not apply and/or not used	Used some- what	Used quite a bit	Used a great deal
1. Just concentrate on what I have to do next --- the next step	0	1	2	3
2. I try to analyze the problem in order to understand it better.	0	1	2	3
3. Turn to work or substitute activity to take my mind off things.	0	1	2	3
4. I feel that time will make a difference-- the only thing to do is to wait.	0	1	2	3
5. Bargain or compromise to get something positive from the situation.	0	1	2	3
6. I'm doing something which I don't think will work, but at least I'm doing something.	0	1	2	3
7. Try to get the person responsible to change his or her mind.	0	1	2	3
8. Talk to someone to find out more about the situation.	0	1	2	3
9. Criticize or lecture myself.	0	1	2	3
10. Try not to burn my bridges but leave things open somewhat.	0	1	2	3
11. Hope a miracle will happen.	0	1	2	3
12. Go along with fate; sometimes I just have bad luck.	0	1	2	3
13. Go on as if nothing is happening.	0	1	2	3
14. I try to keep my feelings to myself.	0	1	2	3
15. Look for the silver lining, so to speak; try to look on the bright side of things.	0	1	2	3
16. Sleep more than usual.	0	1	2	3
17. I express anger to the person(s) who caused the problem.	0	1	2	3

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	Does not apply and/or not used	Used some- what	Used quite a bit	Used a great deal
18. Accept sympathy and understanding from someone.	0	1	2	3
19. I tell myself things that help me to feel better.	0	1	2	3
20. I am inspired to do something creative.	0	1	2	3
21. Try to forget the whole thing.	0	1	2	3
22. I'm getting professional help.	0	1	2	3
23. I'm changing or growing as a person in a good way.	0	1	2	3
24. I'm waiting to see what will happen before doing anything.	0	1	2	3
25. Apologize or do something to make up.	0	1	2	3
26. I'm making a plan of action and following it.	0	1	2	3
27. I accept the next best thing to what I want.	0	1	2	3
28. I let my feelings out somehow.	0	1	2	3
29. Realize I brought the problem on myself.	0	1	2	3
30. I'll come out of the experience better than when I went in.	0	1	2	3
31. Talk to someone who can do something concrete about the problem.	0	1	2	3
32. Get away from it for awhile; try to rest or take a vacation.	0	1	2	3
33. Try to make myself feel better by eating, drinking, smoking, using drugs or medication, etc.	0	1	2	3
34. Take a big chance or do something risky.	0	1	2	3
35. I try not to act too hastily or follow my first hunch.	0	1	2	3
36. Find new faith.	0	1	2	3
37. Maintain my pride and keep a stiff upper lip.	0	1	2	3

- 3 -

	Does not apply and/or not used	Used some- what	Used quite a bit	Used a great deal
38. Rediscover what is important in life.	0	1	2	3
39. Change something so things will turn out all right.	0	1	2	3
40. Avoid being with people in general.	0	1	2	3
41. Don't let it get to me; refuse to think too much about it.	0	1	2	3
42. Ask a relative or friend I respect for advice.	0	1	2	3
43. Keep others from knowing how bad things are.	0	1	2	3
44. Make light of the situation; refuse to get too serious about it.	0	1	2	3
45. Talk to someone about how I am feeling.	0	1	2	3
46. Stand my ground and fight for what I want.	0	1	2	3
47. Take it out on other people.	0	1	2	3
48. Draw on my past experiences; I was in a similar situation before.	0	1	2	3
49. I know what has to be done, so I am doubling my efforts to make things work.	0	1	2	3
50. Refuse to believe it will happen.	0	1	2	3
51. Make a promise to myself that things will be different next time.	0	1	2	3
52. Come up with a couple of different solutions to the problem.	0	1	2	3
53. Accept it, since nothing can be done.	0	1	2	3
54. I try to keep my feelings from interfering with other things too much.	0	1	2	3
55. Wish that I can change what is happening or how I feel.	0	1	2	3
56. Change something about myself.	0	1	2	3
57. I daydream or imagine a better time or place than the one I am in.	0	1	2	3
58. Wish that the situation would go away or someone be over with.	0	1	2	3

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	Does not apply and/or not used	Used some- what	Used quite a bit	Used a great deal
59. Have fantasies or wishes about how things might turn out.	0	1	2	3
60. I pray.	0	1	2	3
61. I prepare myself for the worst.	0	1	2	3
62. I go over in my mind what I will say or do.	0	1	2	3
63. I think about how a person I admire would handle this situation and use that as a model.	0	1	2	3
64. I try to see things from the other person's point of view.	0	1	2	3
65. I remind myself how much worse things could be.	0	1	2	3
66. I jog or exercise.	0	1	2	3
67. I try something entirely different from any of the above. (Please describe).				
_____	0	1	2	3
_____	0	1	2	3

- | | Yes | No |
|---|-----|-----|
| 68. In general, is the situation caused by your ^{one} move | | |
| a. that you could change or do something about? | ___ | ___ |
| b. that must be accepted or gotten used to? | ___ | ___ |
| c. that you needed to know more about before you could act? | ___ | ___ |
| d. in which you had to hold yourself back from doing what you wanted to do? | ___ | ___ |

If you checked "Yes" more than once, underline the statement which best describes the situation.

PLEASE CHECK TO MAKE SURE YOU HAVE ANSWERED ALL ITEMS

Appendix J

Social Support Inventory

SOCIAL SUPPORT

1. I have a feeling of being loved and cared about by: (check all that apply)
- My spouse or partner Air Force Command Community or neighborhood groups
 My children Co-workers Professionals (e.g. doctors, teachers)
 Other relatives Church groups Special groups I belong to (e.g. Wives)
 Close friends My spiritual faith Reading books or watching T.V. shows
2. I feel I am valued and respected for who I am and what I can do by:
- My spouse or partner Air Force Command Community or neighborhood groups
 My children Co-workers Professionals (e.g. doctors, teachers)
 Other relatives Church groups Special groups I belong to (e.g. Wives)
 Close friends My spiritual faith Reading books or watching T.V. shows
3. I have a sense of trust and security from the "give-and-take" of being involved with:
- My spouse or partner Air Force Command Community or neighborhood groups
 My children Co-workers Professionals (e.g. doctors, teachers)
 Other relatives Church groups Special groups I belong to (e.g. Wives)
 Close friends My spiritual faith Reading books or watching T.V. shows
4. When I need to talk or think about how I'm doing with my life, I feel understood and get help from:
- My spouse or partner Air Force Command Community or neighborhood groups
 My children Co-workers Professionals (e.g. doctors, teachers)
 Other relatives Church groups Special groups I belong to (e.g. Wives)
 Close friends My spiritual faith Reading books or watching T.V. shows
5. I feel good about myself when I am able to do things for and help:
- My spouse or partner Air Force Command Community or neighborhood groups
 My children Co-workers Professionals (e.g. doctors, teachers)
 Other relatives Church groups Special groups I belong to (e.g. Wives)
 Close friends People who share my beliefs and values Causes that are promoted in books, newspapers or on T.V.
6. Of the following, please circle the three which you feel have been most helpful in helping you adjust to your move to Hill A.F.B.
- | | | |
|----------------------|--------------------|---|
| My spouse or partner | Air Force Command | Community or neighborhood groups |
| My children | Co-workers | Professionals (e.g. doctors, teachers) |
| Other relatives | Church groups | Special groups I belong to (e.g. Wives) |
| Close friends | My spiritual faith | Reading books or watching T.V. shows |

Appendix K

Demographic Information by Rank and for Spouses

Appendix K

The demographic breakdown by rank for service members was as follows: Age- The junior enlisted members had 5 members under 21 years of age, 42 ages 21 - 30 years and 11 members 31-40. The Senior Enlisted had 12 members 31-40 and 1 member 41 or above. Of the officers, 6 were 21-30, 15 were 31-40 and 3 were 41 or above. Time in service- Of the junior enlisted members, 17 reported 0-4 years, 29 reported 5-10 years, 6 11-15 years and 5 16-20 years in service. Of the senior enlisted officers, 2 reported 11-15 years of service time, 6 16-20 years and 5 more than 20 years. The officers were more spread out with 1 reporting 0-4 years of service time, 9 5-10 years, 7 11-15 years, 6 16-20 years and 1 over 20 years. All of the service members except one junior enlisted were born in the U.S.

Marriage Many of the junior enlisted members had been married a short time with 19 members reporting under 2 years in the present marriage, 20 married 2 - 5 years, 15 married 6 - 10 years, 3 11 - 15 years and only 1 over 15 years. The Senior Enlisted had been married longer with 1 member reporting 2 - 5 years, 3 married 6 - 10 years , 5 married 11 - 15 years and 4 over 15 years. The officers were distributed as follows: 1 married under 2 years, 4 2-5 years, 6 6-10 years, 7 11-15 years and 6 over 15 years. Most of the junior enlisted members (48) reported no previous marriages with 8 having one previous marriage and 2 having 2 previous marriages. Nine of the senior enlisted members were in their first marriage with 4 members having been married once before. All but one of the officers (23) were in their first marriage.

Children- About a third (18) of the junior enlisted reported having no children with 15 members having one child, 16 having 2 children, 7 having 3 children, 1 having 4 children and 1 over 4 children. Of the senior enlisted members only 1 had no children, 2 had one child, 8 had 2 children, 1 had 4 children and 1 had over 4 children. Three officers reported no children, 3 had 1 child, 6 had 2 children, 7 had 3 children, 3 had 4 children and 2 had over 4 children. This finding of 22 couples with no children contrasted with the

original A.F. printout which showed that only three members without children had been selected and that of these three, only one had replied. Since 22 couples answered that they had no children, it was surmised that the number of children given in the Air Force list was based on number of dependents claimed for income tax deductions and not actual number of children. About half (47.4%) of the service members reported having children under 4 with 31 junior enlisted members, 2 senior enlisted and 12 officers. About half (45.3%) also reported having children from 5-12 living at home with 20 junior enlisted, 7 senior enlisted and 16 officers. There were far fewer teenagers reported (17.9%) with 3 junior enlisted, 7 senior enlisted and 7 officers having children in this age range.

Race- Most of the service members were Caucasian (87.4%) with 47 junior enlisted, 13 senior enlisted and 23 officers. 5 junior enlisted were black, 3 were Hispanic, 2 were American Indians and 1 was other than the above. One officer was American Indian. Education- As expected, the officers were more highly educated with 2 reporting some college, 6 a B.A. degree and 16 graduate training. Of the senior enlisted members, 1 had a high school education, 10 had had some college, 1 had a B.A. degree and 1 had graduate training. Three of the junior enlisted members had less than 12 years of education with 23 reporting a high school degree, 30 reporting some college, 1 a B.A. degree and 1 some graduate training.

Health- Most of the service members reported their health as being good or excellent with only one senior enlisted member rating himself as having fair health status.

Religion- The junior enlisted members had 15 Catholics, 17 Protestants, 10 Mormons, and 16 other. The senior enlisted members had 4 Catholics, 7 Protestants and 2 other. The officers had 9 Catholics, 8 Protestants, and 7 Mormons.

Moves- Several of the junior enlisted members (5) reported no previous moves with 11 having 1 previous move, 12 2 previous moves, 7 3 previous moves, 8 4 moves and 15 more than 4 previous moves. All of the senior enlisted members reported

more than 4 previous moves. Of the officers, 3 had moved twice previously, 2 had 3 previous moves, 3 had 4 previous moves and 16 more than 4 moves. More of the junior enlisted members had moved more than 6 months ago (32) with 26 reporting the move to Hill was less than 6 months before. The senior enlisted members had 5 members who had moved less than 6 months before and 8 more than 6 months. Fifteen of the officers had moved less than 6 months before with 9 moving more than 6 months before.

Notice Before Move- The largest number of all ranks had 4-6 months notice before the move (43.2%). Of the junior enlisted members, 17% reported receiving under one month's notice, 22% 2-3 month's notice, 39% 4-6 month's notice and 22% over 6 month's notice. The senior enlisted members had greater advance notice as a rule with no members receiving under one month's notice, 1 reporting 2-3 month's notice, 8 with 4-6 month's notice and 4 with over 6 month's notice. The officers were more spread out with 3 receiving less than 1 month's notice, 4 2-3 month's notice, 11 4-6 month's notice and 6 with over 6 month's previous notice.

Previous Exposure to Utah- About half (47%) of the A.F. members had had no previous exposure to Utah. The junior enlisted members showed the lowest numbers with previous exposure with 56% reporting no previous exposure, 18% reporting having visited Utah and 26% having lived in Utah before. About half (46%) of the senior enlisted members had no previous exposure to Utah with 23% having visited Utah before and 31% having lived there before. Of the officers, only 38% had had no previous exposure to Utah with 33% reporting having visited before and 29% having lived there before.

Supports When Moving- The junior enlisted members had the fewest supports when moving to Hill with 52% reporting that they knew no one when arriving at Hill, 20% with close relatives nearby, 2% with distant relatives and 26% with friends there. The senior enlisted members had the highest number of close relatives nearby (62%) with 23% reporting they knew no one and 15% reporting they had friends at Hill. Of the officers, 33% knew no one when arriving at Hill, 42% had close relatives nearby, 4% had distant

relatives and 21% had friends.

Attitude about Move- Half of the officers felt positive (8) or very positive (4) about leaving their prior base with 12 reporting mixed emotions. Likewise, 6 of the senior enlisted felt positive, 1 very positive, 5 mixed emotions and just 1 very negative about leaving the prior base. Several of the junior enlisted felt very negative (5) or negative (3) about leaving their prior base with 12 reporting mixed emotions, 7 a neutral attitude, 20 a positive and 11 a very positive attitude. About half (29) of the junior enlisted members felt positive or very positive about moving to Hill A.F.B. with 8 reporting a neutral attitude, 12 experiencing mixed emotions, and 3 with negative and 6 with very negative attitudes about moving to Hill. In contrast, none of the senior enlisted personnel or officers reported negative attitudes about moving to Hill with 9 senior enlisted reporting positive or very positive attitudes, 2 with mixed emotions and 2 with neutral feelings. Of the officers, 21 had positive or very positive attitudes about the move with 3 reporting mixed emotions.

Emotional Adjustment- Most of the military members reported either very good or good emotional adjustments to the move. Of the junior enlisted members, 33% reported very good adjustment, 41% good, 21% fair, 3% poor and 2% very poor adjustment. The senior enlisted members were more positive with 38% reporting very good adjustment, 39% good and 23% fair. The officers also were more positive with 37% reporting very good adjustment, 46% good and 17% fair adjustment to the move.

Location of Homes- Most of the junior enlisted members lived either on base (31%) or in apartments (33%) with 17% living in rental houses and 19% living in their own houses. About half (46%) of the senior enlisted members lived on base and about half (46%) lived in their own houses with one member (8%) living in a rental home. In contrast, most (63%) of the officers owned their own homes with 29% living on base, 4% in apartments and 4% in a rental home.

Attitude Toward Air Force- The officers had a more positive attitude about the A.F. in general with 46% reporting a very good attitude, 37% a good attitude and 17% a

fair attitude toward the A.F. The senior enlisted were for the most part positive with 23% reporting a very good attitude, 54% good, 15% fair and 8% poor. The junior enlisted members were slightly more negative with 28% reporting a very good attitude, 45% good, 17 fair, 8% poor and 2% very poor.

Wife Working- A difference between enlisted personnel and officers was also noted in the report of the wife's working before and after the move. The junior enlisted members had 57% working full or part time before the move and 53% after the move. The number unemployed was 29% before the move and 40% after with 14% before and 7% after ranked as not applicable (i.e. full time housewives). Of the senior enlisted members, 77% reported their wives working full or part time before the move and only 39% after the move. The number unemployed jumped from 15% before the move to 46% after and the not applicable was 8% before and 15% after. In contrast, of the officer's wives, only 46% were reported working full or part time before the move and 34% after the move. The increase in unemployed was from 37% before the move to 54% after with 17% and 13% rated as not applicable.

Wives- Finally, the wives of the Air Force members reported 13% under 21 years of age, 48% 21-30, 37% 31-40 and 2% over 40. Most (80%) were born in the U.S. with 11% born in the Far East, 4% in Europe and 5% in some other place. As for race, most of the wives (82%) were Caucasian with 3% Black, 9% Oriental, 1% Hispanic, 1% American Indian and 4% other. For religion, most of the wives were either Catholic (30%) or Protestant (32%) with 16% Mormon and 22% other. Of educational achievement, 12% had less than 12 years of school, 29% had a high school level of education, 46% had some college, 8% had a B.A. degree and 5% had some graduate training. Most of the women rated their health as excellent (39%) or good (55%) with 5% rating their health as poor and 1% as very poor.

Like the men, most of the wives were in their first marriages (86%) with 13% reporting one previous marriage and 1% 2 previous marriages. Of the number years in the

present marriage, 21% had been married under 2 years, 26% 2-5 years, 24% 6-10 years , 17% 11-15 years and 12% more than 15 years. Twenty three percent of the wives had no children, 22% had one child, 31% had 2 children, 14% 3 children, 6% 4 children and 4% more than 4 children. About half (46%) of the wives reported having children 4 or under living at home, 46% had children ages 5-12 at home and 20 % had children 13 or older at home.

Most of the wives had moved before with only 15% reporting no previous moves, 12% one move, 21% 2 moves, 8% 3 moves, 15% 4 moves and 29% more than 4 previous moves. About half (48%) of the subjects had moved less than 6 months before and 52% had moved more than 6 months before. About half (45%) reported a positive or very positive attitude about leaving their prior base with 7% reporting neutral feelings, 39% mixed emotions, 4% a negative attitude and 4% a very negative attitude. A similar number (47%) felt very positive about moving to Hill although there were 10% reporting neutral feelings, 29% reporting mixed emotions and 8% with negative and 6% with very negative attitude about moving to Hill. The majority of the women (65%) felt that they had made a very good or a good emotional adjustment to the move with 23% reporting a fair adjustment, 10% a poor adjustment and 2% a very poor adjustment.

About half (56%) of the wives had had no previous exposure to Utah with 18% having visited Utah before and 26% having lived there before. Similarly, about half (52%) knew no one for support in Utah before the move while 26% had close relative, 2% distant relatives and 20% friends in Utah. Most of the wives (75%) had a very good or good attitude about the A.F. while 18% had a neutral attitude, 6% a poor attitude and 1% a very poor attitude.

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