AN ABSTRACT OF THE THESIS OF

Jennifer R. Mawdsley for the degree of Master of Science in Human Development and Family Studies presented on November 4, 2003.
Title: Stressors, Resources, Perception, and Adaptation Among Military Women During Deployment.

Abstract approved _____ **Redacted for Privacy** _____
Anisa M. Zvonkovic

This study explored factors that lead to adaptation among married women in the military during the stressor of deployment. The Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) provided a strong theoretical model for this study, on which the empirical model for this study was based. In this study's empirical model, the variables that led to adaptation include the stressor event of military deployment, pile-up of demands (marital pile-up, family pile-up, financial pile-up, and job pile-up), resources (personal resources, family system resources, and social support resources), and perception (perception of deployment and perception of all). The 1999-2000 United States Air Force Community Needs Assessment was analyzed using Structural Equation Modeling and Multiple Hierarchical Regression.

The Structural Equation Modeling Analysis did not yield a path model and a Multiple Hierarchical Regression was executed in order to determine which variables in the path model contribute to adaptation. In this analysis, the independent variables were entered according to the theoretical consideration of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) and the

proposed path model. The results Multiple Hierarchical Regression indicate that pile-up of demands and resources provided a significant contribution to adaptation. However, deployment and perception did not contribute to the variance in adaptation, which was incongruent to previous findings.

The most significant limitation of the study is the disadvantages of conducting a secondary analysis since measures available are less than ideal for the variables in the model. There were several benefits of the study, including the inclusion of women in the military, improvement of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c), and potential early evaluation and intervention of families during periods of stress. Future research is indicated, focusing on extended deployments, qualitative studies exploring the role of perception in adaptation, other understudied population in the military (civilian husbands, men in the military, and dual military couples), and additional model improvement.

Stressors, Resources, Perception, and Adaptation Among
Military Women During Deployment

by
Jennifer R. Mawdsley

A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Master of Science

Presented November 4, 2003
Commencement June 2004

Master of Science thesis of Jennifer R. Mawdsley
Presented on November 4, 2003.

APPROVED:
Redacted for Privacy
Major Professor, representing Human Development and Family Studies

Redacted for Privacy
Head of the Department of Human Development and Family Sciences

Redacted for Privacy
Dean of the Graduate School

I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Redacted for Privacy
y, Author

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

TABLE OF CONTENTS (continued)

LIST OF FIGURES

LIST OF TABLES

DEDICATION

This thesis is dedicated to my parents. Thank you for your unwavering support and encouragement during this endeavor.

Stressors, Resources, Perception, and Adaptation Among
Military Women During Deployment

CHAPTER 1: INTRODUCTION

The old military saying, "if Uncle Sam wanted you to have a wife, he would

have issued you one," is common and symbolic among the military, suggesting that

wives and families interfere with the demands of military life (Amen, Merves, Jellen,

& Lee, 1988; McCubbin, Dahl, & Hunter, 1976, p. 291). Although this saying is

outdated in light of the growing population of female military members, it

demonstrates the military's stance on family life. Military life is difficult for service

members and their families, as they experience such stressors as extended separations,

frequent relocations, isolation from the civilian community, a rigid rank structure, and

the intense demands of the military culture (Lagrone, 1978). Of these strains, extended

deployments are perhaps the most detrimental to a military family (Lagrone, 1978).

Research Importance

This study fills three important gaps in military family research literature. First,

existing research on the effect of military deployment on the marital relationship has

focused on the civilian wife as the unit of analysis. This focus has been important

since over 85 percent of military personnel are male, and half (51.4%) of all military

members are married (Military Family Resource Center, 2001). However, with the

growing population of female personnel, which accounts for 14.9 percent of the

Department of Defense and 19.1 percent of active duty of Air Force service members

(Military Family Resource Center, 2001), there is a need to understand the effect of

military deployment on female military personnel, which this study provides.

Second, it makes sense to use the individual rather than the family as the unit of analysis in the Double ABCX model, as resource utilization, perception of the situation, and adaptation to the stressor event may differ between family members. Therefore, the unit of analysis for this study will be the individual military member and individual spouse versus the family unit. A review of Hill's (1949) ABCX Model of Family Stress and Coping and McCubbin and Patterson's (1983a, 1983b, 1983c) Double ABCX Model of Family Stress and Adaptation employ the family as the unit of analysis. Walker (1985), in contrast, points out that there is a disparity in the effect a particular stressor has on individual members of a family. Consequently, it is necessary to use the individual as the unit of analysis.

Third, a review of military family research reveals a lack of application of theory to research in this area (McClure, 1999). Many studies (e.g. Blaisure & Arnold-Mann, 1992; Blount, Lubin, & Curry, 1992; Knapp & Newman, 1993; Nice, 1983; Rosen & Moghadam, 1991; Rosen, Teitelbaum, & Westhuis, 1994; Schumm, Knott, Bell, & Rice, 1996; Wood & Scarville, 1995) have focused on the effect of military deployments on the marital relationship with little or no application of theory. McClure (1999), however, asserts that some research on military families is based on the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c), which illustrates the process families undergo to adapt to a stressor event. In reviewing the military family literature, however, there is a lack of comprehensive discussion of the importance of symbolic interactionism theory and systems theory in this model.

Benefits of Study

Besides filling important gaps in the literature, this study provides two benefits. First, as Bell and Schumm (1999) have acknowledged, we lack the means for regular interactions between government scientists and academic researchers. Hence, this study provides the desired interaction.

Second, McClure (1999) stated that the military possesses large databases that have not been fully analyzed due to the time constraints of military researchers and policymakers. This study overcomes this constraint by maximizing the Air Force's Community Needs Assessment data set.

Research Question

This study aims to answer one primary question: What factors lead to positive adaptation among married active duty women in the military during the stressor of military deployment? This thesis will first present a literature review of research related to military deployments and stress theory. Second, research methods will be provided. Third, results of the analysis will be provided. Fourth, the results will be discussed. Last, the conclusion will discuss the usefulness of this study, the contributions to research it makes, the implications, and directions for future research.

CHAPTER 2: LITERATURE REVIEW

Literature Review Introduction

Literature on the effects of military deployment have focused on the military

wife (e.g. Knapp & Newman, 1993; Martin, 1984; McCubbin, Dahl, Lester, Benson,

& Robertson, 1976; Rosen & Moghadam, 1991; Rosen, Moghadam, & Carpenter,

1989; Rosen, Teitelbaum, & Westhuis, 1994; Schumm, Knott, Bell, & Rice, 1996),

children (e.g. Costello, Phelps, & Wilczenski, 1994; Jensen, Xenakis, Wolf, & Bain,

1991; Kelley, Hock, Smith, Jarvis, Bonney, & Graffney, 2001), and the family unit

(e.g. Desivilya &: Gal, 1996; Jensen, Ronel, Lewis, & Xenakis, 1986; Kohen, 1984;

Lagrone, 1978; Morrison, 1981; Zeff, Hirsch, & Lewis, 1997). Literature about the

effect of deployment on the military member is limited to the topics of post-traumatic

stress disorder (Stretch, Durand, & Knudson, 1998) and the adaptation to

peacekeeping duty (Segal, Furukawa, & Lindh, 1990). Although one of these studies

included women, it did not include the pile-up of stressors or use of resources. Further,

literature regarding women in the military is scarce and limited to the health effects of

working in extreme environments (Norwood, Gabbay, & Ursano, 1997) and the

psychological aspects of pregnancy (Tam, 1998). In light of the lack of literature on

the topic of women military members' adaptation to deployment, this literature review

includes research about the effects and adaptation to military deployment for civilian

wives in an effort to apply many of the factors civilian wives experience to women

military members.

This literature review is comprised of six topics: military deployment, Hill's (1949) ABCX Model of Family Stress and Crisis, McCubbin and Patterson's (1983a, 1983b, 1983c) Double ABCX Model of Family Stress and Adaptation, the application of symbolic interactionism theory and systems theory to the Double ABCX Model, and the changes made to the Double ABCX Model in order to formulate the proposed structural equation model. While reviewing the literature of the Double ABCX Model, the foundation of this thesis, concepts from the symbolic interactionism and systems theories will be incorporated to demonstrate how these theories are embedded in the Double ABCX Model of Family Stress and Adaptation.

Military Deployment

Definition of Deployment

The Department of Defense Dictionary of Military and Associated Terms (2003) gives several definitions of the term "deployment." The term deployment can refer to the movement of military forces within operational areas, positioning forces into a formation for battle, or in the Navy, changing from a cruising approach to one ready for battle. The most pertinent definition to this study, however, refers to the relocation of military forces and equipment to desired operational areas (Department of Defense, 2003). This relocation of military forces involves a temporary military assignment for the service member in which his or her family remains at the military installation where the military member is permanently assigned. The terms military deployment, military tour, temporary duty, unaccompanied tours, and family separation will be used synonymously throughout this thesis.

Duration and Form of Deployment

There is diversity in the duration and form of military deployment and consequent family separation among different branches of the service as well as within each branch of the military (Segal, 1986). During peacetime, soldiers are separated from their families to participate in activities such as military schooling, field training, sea duty, and unaccompanied (without their family) tours (Segal, 1986).

Navy and Marine Corps enlisted and officer personnel are separated from their families more frequently than Army and Air Force personnel, with 75 percent of families having experienced one or more extended periods of service member absence (Segal, 1986). Air force family separation rates were the lowest (8% of enlisted, 4% of officers) and Marine Corps separation the highest (23% of enlisted, 10% of officers) (Segal, 1986). These figures reflect extended separations and are not relevant to short periods of separation caused by temporary duty (TDY) or field training; therefore, the actual proportions of family-service member separation are considerably higher at any given time (Segal, 1986).

Severity of Stress

Prolonged and enforced separation of the service member from the family is possibly the most severe job related stress a military family experiences (Knapp & Newman, 1993; Lagrone, 1978; Schumm et al., 1996). Several factors can influence the severity of stress during a deployment. For example, research has concluded that wives and families that have an accumulation of stressors are more susceptible to distress during an extended separation from their spouse (Lagrone, 1978). In another

study, researchers found a significant relationship between an Army wife's perceived level of stress and her psychological well-being (Knapp & Newman, 1993). Research has also found that separations have a negative effect on a family's adaptation to military life and that the impact is more negative for families of lower ranking soldiers (Schumm et al., 1996).

Factors Contributing to Stress During Deployment

Age is a prime predictor of depression among separated wives; younger wives are more likely to encounter separation related problems (Nice, 1983). Young wives are usually away from home for the first time, and their husbands tend to have lower pay grades, which increases the risk of maladjustment since they lack necessary coping and survival skills, coupled with possible financial difficulties (Blount et al., 1992). In addition, younger spouses are not yet familiar with the military system, and it may be a challenge to navigate their way throughout the organizational structure. Additional considerations are the age of the spouse and children, stage of family life, sex of children, parental attitudes, social supports, coping ability, adaptability skills, and past experiences with separation (Blount et al., 1992; Segal, 1986).

Pile-Up of Stressors

There are several factors, called "pile-up stressors" in McCubbin and Patterson's (1983a, 1983b, 1983c) Double ABCX Model of Family Stress and Adaptation, that compound the stress of a deployment. In fact, research has concluded that wives and families with an accumulation of stressors are more susceptible to distress during an extended deployment from their spouse (Lagrone, 1978). In a study

of 74 Army wives whose husbands were deployed in the Persian Gulf, Knapp and

Newman (1993) found that wives with an accumulation of stressors were more

vulnerable to distress during an extended separation from their spouses. These pile-up

factors can be categorized into four groups: marital pile-up, family pile-up, job pile-

up, and financial pile-up.

Marital pile-up. Wood and Scarville (1995) report that during family

separations, stressors such as marital strain, intensify the stress of the deployment.

Additionally, Rosen and Moghadam (1991) conducted a study of 332 military wives

that examined the impact of military life stress on the health and well-being of Army

wives. They found that marital satisfaction was a significant predictor of general well-

being in the military (Rosen & Moghadam, 1991).

Family pile-up. Literature indicates that family stressors increase the stress of

military deployment (e.g. Blount et al., 1992; McCubbin & Patterson, 1983a, 1983b,

1983c; Segal, 1986; Wood & Scarville, 1995). Blount and his colleagues (1992)

identify that stressors such as family conflicts, dysfunctional family relationships, and

poor communication increase the possibility of unsuccessful adjustment. Moreover,

Segal (1986) indicates that normative life events, such as couples who encounter new

stages of family life--newly married couples or couples in periods of childbearing--

are more likely to suffer difficulties during separation because they have had less time

to solidify their relationships and establish new roles. Similarly, Wood and Scarville

(1995) report that stressors such as impending childbirth (Segal 1986), child-care

difficulties, children's behavioral and emotional difficulties, intensify the stress of the separation.

Job pile-up. A frequently cited stressor in the military family literature is frequent relocation (e.g. Kohen, 1984; Segal, 1986; Wood & Scarville, 1995). Military mobility is a hardship that disrupts family life and requires family adjustments; a stressor such as a recent relocation may intensify the stress of separation (Segal, 1986; Wood & Scarville, 1995). Military relocation, particularly to foreign countries, U.S. territories, or overseas, takes military families geographically far from their extended families and friends, making contact with family and friends more difficult (Segal, 1986). Frequent relocation and short-term residences associated with the military also create isolation from the civilian community and social networks (Kohen, 1984).

Financial pile-up. Research reports that financial difficulties intensify the stress of separation and financial satisfaction, ultimately challenging the general well-being of families (Rosen & Moghadam, 1991; Wood and Scarville, 1995).

Researchers report that financial satisfaction correlates significantly with military rank (Jensen, Lewis, & Xenakis, 1986; Rosen & Moghadam, 1991; Segal, 1986). Segal (1986) stated that the negative impact of separation is greater in the lower ranks, and greater life and career satisfaction is reported by officers and higher-ranking enlisted members than by lower-ranking enlisted personnel (Jensen et al., 1991).

The disproportion of well-being and satisfaction among officers and higher-ranking enlisted soldiers may be attributed to the additional stressors that enlisted and

lower ranking soldiers' families experience (Jensen et al., 1991; Segal, 1986). For example, service members who are new in their military careers and enlisted personnel have the least control over the timing and location of their transfers to other military bases (Segal, 1986). Military benefits, such as family housing on post, are also less accessible to lower ranking service members (Segal, 1986). Conversely, officers and higher ranking enlisted members have more advantages, such as a higher income, more control over geographic assignment, higher education, and vastly differing work situations (Jensen et al., 1986).

Resources

There are three types of resources that affect a family's adaptation to a crisis: (a) family members' personal resources, (b) the family's internal resources, and (c) social support (Lavee, McCubbin, & Patterson, 1985; McCubbin & Patterson, 1983a). In general, families with the greatest social, financial, and emotional resources tended to adapt more successfully during a deployment (Bell & Schumm, 1999).

Personal resources. Personal resources are characteristics of individual family members that are available to other family members during a crisis (McCubbin & Patterson, 1983a). These personal resources can include financial, educational, health, and psychological resources (Lavee et al., 1985; McCubbin & Patterson, 1983a). Families with these resources who experienced a more positive adaptation were generally better educated, older spouses, who were more experienced with the military, and were married to higher-ranking senior non-commissioned officers (NCOs) and officers (Bell & Schumm, 1999; Rosen et al., 1994).

Family system resources. Family system resources are internal characteristics of the family unit. These resources can include family cohesion, adaptability, and communication (Lavee et al., 1985; McCubbin & Patterson, 1983a). Blount and his colleagues (1992) indicate that families with a poor pre-deployment attitude generally have a negative adaptation to the stress of deployment. Rosen and Moghadam (1991) report that the most important indicator of general well-being during the stress of deployment is the personality variable of mastery.

Social support resources. Social support resources come from outside the family (McCubbin, Sussman, & Patterson, 1980). Social support can include emotional support, esteem support, and network support (McCubbin & Patterson, 1983a).

In the military, family support refers to programs, policies, and efforts to support or enhance the quality of life of the families of military personnel (Pehrson & Thornley, 1993). Researchers report that these family support groups and other formal programs appear to be significantly effective in enhancing informal networks and systems; there is also evidence that providing support to families increases military readiness, retention, and productivity (Pehrson & Thornley, 1993; Wood & Scarville, 1995). In addition to military family support programs, a study by Pehrson and Thornley (1993) indicated that friends, family, and religious sources are important components in providing support to military families.

Perception

Research has shown that there is a significant relationship between an individual's perception of the stress of deployment and their well-being, in that and individual's perceptions regarding the stressfulness of military life affects their well-being. Similarly, Knapp and Newman (1993) found that there is a significant relationship between an Army wife's level of perceived stress and her psychological well-being (Ickovics, 1987; Knapp & Newman, 1993).

Adaptation

Family adaptation is the outcome variable of the stressor event of the deployment and the pileup of demands buffered by the family's resources (McCubbin & Patterson, 1983a, 1983b, 1983c). This variable is used to describe the outcome of the family's efforts to achieve a new level of balance in family functioning during the stressor event of a deployment and the pile-up of demands (McCubbin et al., 1983).

The ABCX Model of Family Stress and Crisis

Families Under Stress

Hill (1949) used the ABCX framework to guide a longitudinal study of families who were under the stress of war separation and reunion during World War II (McCubbin et al., 1983). The study included 216 families who were observed to determine how they dealt with the crisis (Hill, 1949). The goal of the study was to determine the characteristics and processes of families that enabled them to be successful or unsuccessful during a crisis (Hill, 1949).

Course of Adjustment

Hill's (1949) study describes the families' course of adjustment following a crisis. Initially, families begin in a homeostatic state. Then stressor event occurs, in this case, the absence of a husband/father due to war, which upsets the homeostatic state of the family and causes a state of disorganization (Hill, 1949; Walker, 1985). Hill (1949) likens the process the family uses to go from the state of disorganization or crisis and return to homeostasis to that of a roller coaster (Walker, 1985). The parts of the roller-coaster profile of adjustment to crisis are: crisis → disorganization crisis → recovery crisis → reorganization (Hill, 1949).

Figure 2.1. Roller-Coaster Profile of Adjustment to Crisis. Adapted from Hill, 1949.
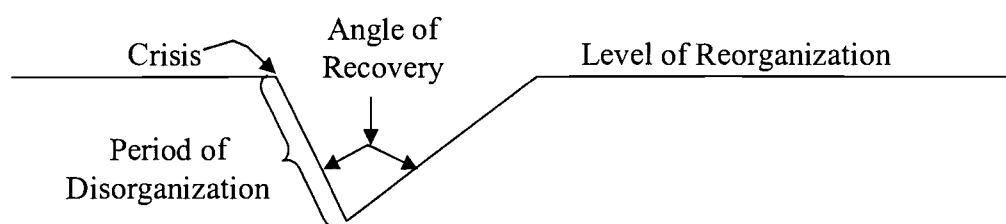
Factors in the ABCX Model

In the ABCX model, three factors determine whether a given event becomes a crisis for a family (Hill, 1949). The "A" factor represents the hardships of the situation or event itself; the "B" factor represents the resources of the family, its role structure, flexibility, and previous history with crisis; and the "C" factor represents the definition the family gives the event, that is, whether family members respond to the event as it

is were or were not a threat to their status, their goals, and their objectives. The combination of "A," "B," and "C" determines "X," the severity of the crisis (Hill, 1949; McCubbin et al., 1983).

Application to Military Families

In terms of military families coping with deployment, the "A" factor is the actual deployment, the "B" factor is the family's resources, the "C" factor is the definition the family gives the deployment, and factor "X" is the severity of the crisis of the situation. The "X" factor is a combination of the deployment, the family's resources, and the definition the family gives the deployment. The model is relatively simplistic in that it does not account for time and other demands of the family.

Types of Crises

There are four concepts and characteristics that differentiate the types of crisis a family may experience. First, the severity of the crisis is important in the ABCX model. Since a crisis strains the resources of the family and forces the family to reshape their functioning, the more severe the crisis, the more strain there is on the family's resources (Hill, 1949). Second, the sources of crises differ. Some crises are extra-family and some are intra-family in origin (Hill, 1949). The crises represented in Hill's (1949) study are considered extra-family in origin because these crises are beyond the family's control. Third, the crisis in Hill's study (1949) is one of dismemberment, meaning there is a loss of a family member, albeit temporarily. This classification is determined by the impact upon the family unit (Hill, 1949; McCubbin & Patterson, 1983a). Last, the crisis involves demoralization, which means that there

is a loss of morale and family unity (Hill, 1949). All of these concepts are applicable to military families experiencing separation and reunion due to military deployment.

In addition to the A, B, C, and X factors in Hill's (1949) study, McCubbin and his colleagues (1983) discovered that Hill's study revealed at least four additional factors which influence a family's adaptation to a stressor event. These additional factors led to the formation of McCubbin and Patterson's (1983a, 1983b, 1983c) Double ABCX Model of Family Stress and Adaptation, which will be described in the next section.

The Double ABCX Model of Family Stress and Adaptation

Differences Between the Models

Process aspect. The Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) is an extension of Hill's (1949) ABCX Model of Family Stress and Crisis. After reviewing their longitudinal observations of families during war-induced separation, McCubbin and Patterson (1983c) felt that a "more dynamic model was needed to explain" a families' ability to adjust to stressor events (p. 90). There are two major differences between the models. First, the Double ABCX Model adds the process as well as the outcome of the family's adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c). Walker (1985) points out the importance of recognizing that stress and the responses to stress are processes rather than discrete events (Walker, 1985). Therefore, unlike Hill's (1949) ABCX Model, the Double ABCX model is represented over time to better represent the process of adaptation (McCubbin & Patterson, 1983).

Contextual aspect. The second difference between the two models is that the Double ABCX Model is a more contextual model of family stress (Boss, 1987; McCubbin & Patterson, 1983a, 1983b, 1983c), as it emphasizes the extrafamilial and intrafamilial circumstances, which influence how the family members perceive the stressor event (Crosbie-Burnett, 1989; McCubbin & Patterson, 1983a, 1983b, 1983c).

For a study of military families coping with deployment, the additions of these concepts to the Double ABCX Model incorporate the process of the family's adaptation over a period of time and take into consideration extrafamilial and intrafamilial circumstances that military families encounter aforementioned (e.g. marital, family, job, and financial pile-ups).

Model Variables

Accordingly, the Double ABCX Model redefines Hill's (1949) model by redefining pre-crisis variables by adding post-crisis variables. These post-crisis variables reflect the process and the context, as aforementioned. The redefined pre-crisis variables are as follows: (a) stressor, (b) existing resources, (c) perception of "a," and (x) crisis (Lavee et al., 1985; McCubbin & Patterson, 1983a, 1983b, 1983c). The post-crisis variables that the Double ABCX Model adds are as follows: (aA) pile-up of demands, (bB) family adaptive resources, (cC) perception and coherence, and (xX) family adaptation (Lavee et al., 1985).

Figure 2.2. The Double ABCX Model of Family Stress and Adaptation (Adapted

From McCubbin and Patterson, 1983a)
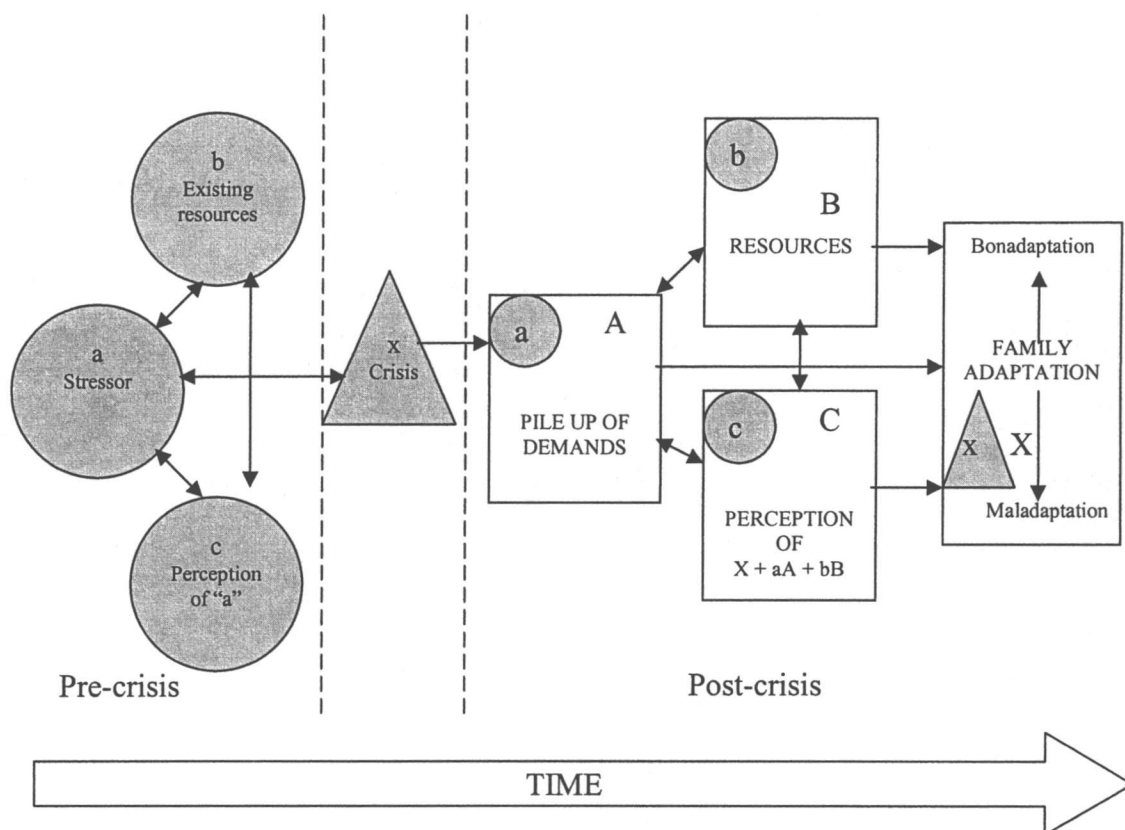
Pre-Crisis Variables

   Demands of stressor and hardships (a factor). The "a" factor is the stressor

event affecting the family (McCubbin & Patterson, 1982, 1983a, 1983b; 1983c). There

are several definitions of a stressor. One definition of stressors is a life event or

transition affecting the family unit that produces, or has the potential of producing,

change in the family social system (McCubbin & Patterson, 1983c; McCubbin et al.,

1983). Hill (1949) defines stressors as life events or occurrences of ample magnitude

to bring about change in the family system. Voydanoff (1980) has a slightly different definition: stressors are problems requiring solutions or situations to which the family must adapt in order to maintain the functioning of the family system (Voydanoff, 1980).

Resources (b factor). The "b" factor, the existing resources to meet the demands of the stressor, can include personal resources, family system resources, or social support resources (Lavee et al., 1985). These resources are the family's tools for preventing the stressor event from becoming a crisis (McCubbin & Patterson, 1983a, 1983b, 1983c).

Family definition of stressor (c factor). The "c" factor is the definition the family makes of the seriousness of the event (McCubbin & Patterson, 1983a, 1983c). The family's definition or perception is considered the mediating role and has the potential to reduce the impact of stressful events (Howard, 1974). The definition the family gives the event is subjective and is reflective of the family's culture, values, and previous experience with the stressor (McCubbin & Patterson, 1983).

Family crisis (x factor). The "x" factor is the crisis or stress stemming from the event. Crisis refers to the amount of incapacity or disorganization in the family where resources are inadequate (Hill, 1949). This factor is inclusive of the event (a), the resources (b), and the definition of the event (c) (McCubbin & Patterson, 1983a, 1983b, 1983c). The combination of these factors determines the "x" factor to ascertain whether the event is a crisis or not. This factor of family crisis is the family's response not only to the stressor or the resources of the family, but is also a response to the

definition the family gives the event (Hill, 1949; LaRossa & Reitzes, 1993). This variable is conceptualized as a continuous variable that defines the magnitude of the effect of the stressor on the family (McCubbin & Patterson, 1983a).

If the family determines the event is incredibly stressful and they are vulnerable to the stressor, the family will be in crisis or a disorganized period. On the other hand, if the family determines the event is not stressful and they are not vulnerable to the stressor, the family will be able to reorganize during the event.

It makes sense, however, to use the individual rather than the family as the unit of analysis in the Double ABCX model, as resource utilization, perception of the situation, and adaptation to the stressor event may differ between family members. In fact, Walker (1985) points out that there is a disparity in the effect that a particular stressor has on individual members of a family. Therefore, the unit of analysis for this study will be the individual military member and individual spouse versus the family unit.

Application of pre-crisis variables to military families. In terms of the pre-crisis variables relatedness to military families, the first factor, the stressor (a), is the actual military deployment. As stated in the literature on military families, prolonged and enforced separation of the service member from the family is possibly the most severe job related stress a military family experiences (Knapp & Newman, 1993; Lagrone, 1978; Schumm et al., 1996). The next factor is the family's existing resources (b), which include personal resources, internal resources, and social support resources that the family already had. The family's perception (c) of factor "a" is the

definition they give to the deployment. The last factor in the pre-crisis variables, crisis (x), is the level of disorganization in the family system as a result of the deployment stressor.

Post-Crisis Variables

　　Pile-up of family demands (aA factor). The aA factor, or the pileup of demands, refers to the cumulative effect of the pre- and post-crisis stressors and strains (McCubbin & Patterson, 1983a). The pileup factor can refer to any extraneous factors that the family may be experiencing at the time of the actual stressor (McCubbin & Patterson, 1983). Because family crises evolve and are resolved over a period of time, families seldom are dealing with a single stressor, but rather, they experience a pile-up of stressors and strains (McCubbin et al., 1983). These demands or changes may emerge from (a) individual family members, (b) the family system, and /or (c) the community of which the family and its members are a part (McCubbin et al., 1983a). The pile-up of these demands intensify the impact of the stressor event. This factor takes into consideration that families responding to a stressor encounter additional stressors both from their own development and from their efforts to cope (Walker, 1985).

　　Family adaptive resources (bB factor). The bB factor, family adaptive resources, includes existing resources or those accumulated in response to the stressor event (McCubbin & Patterson, 1983b). These adaptive resources buffer the effect of the pileup of demands and can help the family adapt to the stressor event (Lavee et al., 1985).

In the Double ABCX Model, there appears to be two general types of family adaptive resources: existing resources and expanded family resources (McCubbin et al., 1983). Existing resources are resources that are already part of the family's repertoire and assist in minimizing the impact of the initial stressor and reduce the probability that the family will enter into crisis (McCubbin et al., 1983). Expanded family resources are resources strengthened or developed in response to the additional demands from crisis situations or as a result of pile-up demands (McCubbin et al., 1983).

Family definition and meaning (cC factor). In the Double ABCX Model, the cC factor is the meaning the family gives to the total crisis situation. This factor includes the stressor that caused the crisis, the added stressors and strains, old and new resources, and estimates of what needs to be accomplished to bring the family back to a homeostatic state (McCubbin et al., 1983).

When families are able to redefine a crisis situation and give it new meaning, it involves efforts to (a) render issues, hardships, and tasks as more manageable; (b) decrease the emotional intensity associated with the crisis situation; and (c) encourage the family unit to carry on with its fundamental tasks of promoting member social and emotional development (McCubbin et al., 1983).

Family adaptation (xX factor). The xX factor, family adaptation, is the outcome of the stressor event and the pileup of demands buffered by the family's resources (McCubbin & Patterson, 1983a, 1983b, 1983c). Family adaptation is the fundamental concept in the Double ABCX Model and is used to describe the outcome

of the family's efforts to achieve a new level of balance in family functioning which was upset by the stressor event and pile-up of demands (McCubbin et al., 1983). The purpose of post-crisis adjustment is primarily to reduce or eliminate the disruptiveness in the family system and restore homeostasis (McCubbin et al., 1983).

Family adaptation is a continuous variable, ranging from maladaptation to bonadaptation, and families can fall anywhere on this continuum (McCubbin & Patterson, 1983a, 1983b, 1983c). Table 2.1 contains the continuum of family adaptation and characteristics of families at each end of the continuum.

Table 2.1. Continuum of Family Adaptation. Adapted from McCubbin & Patterson, 1983a.

Bonadaptation ⟵　　　　　⟶ Maladaptation	
Family integrity strong	Deterioration in family integrity
Member development enhances	Individual development curtailed
Family unit development enhanced	Family unit development curtailed
Family independence and control of environmental influence	Loss of family independence and autonomy

The positive end of the continuum of family adaptation, called bonadaptation, is exemplified by a balance between the demands and the family's adaptive resources, at which time the family is able to return to or maintain a homeostatic state (Lavee et al., 1985; McCubbin et al., 1983). The negative end of the continuum, called

maladaptation, is characterized by an imbalance at both levels of functioning which results in (a) the maintenance or strengthening of the family; (b) the continued support of individual family member development and family unit development; and (c) the maintenance of family independence and the family's sense of control over extrafamilial influences (McCubbin et al., 1983).

Stress arises when a stressor event demands more resources than a family is capable of gathering, thus threatening established and shared familial definitions and requiring adjustment or adaptation to avert disruption, disorganization, or dysfunction (Davis-Brown & Salamon, 1987). Crisis occurs when the family is unable to adjust or adapt to the stressor in a manner that achieves a new balance and restores stability (Davis-Brown & Salamon, 1987).

Family maladaptation means that the family has an imbalance of demands and capabilities for meeting these demands and is in a state of disorganization (Lavee et al., 1985; McCubbin & Patterson, 1983a). Maladaptation is characterized by a continued imbalance at either level of family functioning or the achievement of a balance at both levels but at a price in terms of (a) deterioration in family integrity; (b) a curtailment or deterioration in the personal health and development of a member or the well-being of the family unit; or (c) a loss or decline in family independence and autonomy (McCubbin et al., 1983). When the family is maladapted, they may experience depression or other negative effects.

Application of post-crisis variables to military families. The first post-crisis factor is the pile-up of demands (aA), which can include marital, family, job, and

financial pile-ups. As stated in the literature review of military families, Lagrone (1978) concluded that wives and families that have an accumulation of stressors are more susceptible to distress during an extended separation from their spouse. The next factor is the individual's adaptive resources (bB), which can include such things as additional personal resources, internal resources, or social support resources amassed to deal with the stressor event. This factor is important to the Double ABCX Model, as Bell and Schumm (1999) stated in their research that families with the most social, financial, and emotional resources tended to adapt best during a deployment (Bell & Schumm, 1999). The third factor is the individual's perception (cC) of the crisis. The individual gives this meaning to the total situation, including the stressor event, the pile-up of demands, new and existing resources, and the perception of the stressor event. Research has shown that there is a significant relationship between a military wife's perception of the stress of deployment and her well-being (Ickovics, 1987; Knapp & Newman, 1993). The last post-crisis factor is individual adaptation (xX). This factor refers to the outcome of the deployment, the pile-up of demands, the buffering effect of the new and existing resources, and the individual's perception of the situation. In general, families with resources have a more positive adaptation to military deployment (Bell & Schumm, 1999).

Figure 2.3. Proposed Structural Equation Model for ABCX Model of Military

Deployment and Adaptation.
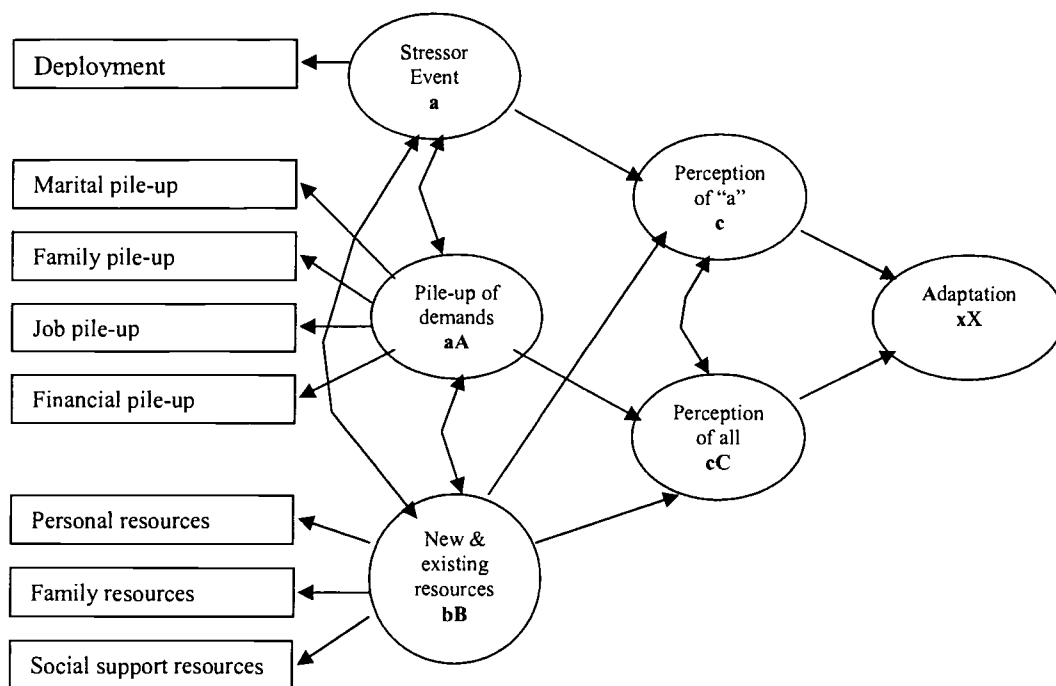
Application of Theories to the Models

Symbolic Interactionism Theory

Symbolic interactionism, which emphasizes communication, self-concept, and social roles, involves associations between meanings and actions (LaRossa & Reitzes, 1993). Essentially, the formation of these meanings or symbols influences individuals' behavior (LaRossa & Reitzes, 1993). Individuals act on information they encounter as well as on the social reality they construct; in other words, humans behave according to their collective definition or meaning that they have for something (Hess & Handel, 1994; Whitchurch & Constantine, 1993).

Premises. There are three premises of symbolic interactionism: (a) human beings act toward things on the basis of the meanings that the things have for them, (b) the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows, and (a) these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters (Blumer, 1969).

Application of Symbolic Interactionism Theory to the Model

Symbolic interactionism theory adds to the ABCX Model of Family Stress and Crisis (Hill, 1949) and the Double ABCX Model of Family Stress and Adaptation McCubbin & Patterson, 1983a, 1983b, 1983c) by emphasizing the significance of the individual's or family's perception of the stressor in the models. In the model, the individual or family creates a meaning for the stressor event, the pileup of stressors, and the resources. This interpretive process determines the meaning the individual

gives to the overall crisis of the situation. In this study, it may be that military women interpret their deployment in a positive manner, as they may have a different perception of the separation than a civilian individual since military members choose their unique lifestyle.

After giving meaning to the stressor (factor a or factor aA), an individual will modify the meaning of the situation (factor c or factor cC) by evaluating the resources (factor b or factor bB) available to meet the stressor. Their interpretation of the ability to balance the stressor (factor a or factor aA) with resources (factor b or factor bB) results in the perception of the crisis (factor c or factor cC) and thus the level of adaptation to the stressor event.

Systems Theory

Systems theory is used to explain how objects are interrelated with one another (Whitchurch & Constantine, 1993). Components in a system are interdependent, or held together in a system; therefore, behaviors of the components exhibit reciprocal influence, meaning that what happens with one component generally affects every other component (Whitchurch & Constantine, 1993). Applied to families, this means that one family member's actions affect the other members of the family (Whitchurch & Constantine, 1993).

Systems theory considers families capable of change, adaptation, and restructuring (Olson, Sprenkle, & Russell, 1979). Families must be capable of adaptation to various normative and nonnormative stressors (Olson et al., 1979). There are four general assumptions in systems theory: (a) all parts of the system are

interconnected, (b) a system can only be understood as a whole, (c) a system's

behavior affects its environment, and in turn, the environment affects the system, and

(d) systems are heuristics (White & Klein, 2002).

One of the concepts of systems theory, negative feedback, particularly relates

to the Double ABCX Model of Family Stress and Adaptation. The negative feedback

loops work to restore or maintain a condition of dynamic equilibrium, a state known as

homeostasis (Galvin & Brommel, 2000; Kast & Rosenzweig, 1976; Whitechurch &

Constantine, 1993). When homeostasis is interrupted by either internal or external

disturbances, the process of feedback uses information from its environment to adjust

in order to reinstate homeostasis (Kast & Rosenzweig, 1976; Whitechurch &

Constantine, 1993).

Application of Systems Theory to the Model

Systems theory relates to the Double ABCX Model of Family Stress and

Adaptation because this theory explains how the different variables in the model

(stressor, pileup of stressors, resources, perception) are interrelated to create

adaptation. In the model, the stressor (factor a) brings disequilibrium to the family

system. In response to the stressor (factor a), negative feedback occurs when the

family or individual employs adaptive resources (factor b or bB) in an attempt to

reorganize the system or to bring itself back to the state of homeostasis. If the family

lacks adequate resources (factor b or factor bB) to balance the stressor (factor a) and

the pileup of demands (factor aA), the family will be in a state of disequilibrium.

Factor x in the pre-crisis portion of the model represents a "period of disorganization"

in the family if it is vulnerable to the stressor (Kingsbury & Scanzoni, 1993).

Alternatively, if the family has enough resources (factor b and factor bB), the

disorganization or disequilibrium will be reversed and reorganization will take place

so that the family can return to homeostasis.

New Model

Although the Double ABCX Model of Family Stress and Adaptation

(McCubbin & Patterson, 1983a, 1983b, 1983c) is useful in describing a family's

process from stress to adaptation, it is purely a theoretical model to organize concepts

and it cannot be comprehensively analyzed (Lavee et al., 1985). In a decade review of

family stress literature, McCubbin and his colleagues (1980) indicated the need to

"develop research paradigms which include techniques such as path analysis, so we

can begin to obtain a clearer picture of the ordering of these variables and, in turn,

advance theory construction in this area of research" (pp. 866-867). In fact, in one

study that attempted to analyze the Double ABCX Model using Structural Equation

Modeling, the researchers indicate that they had to translate the theoretical model into

an empirically testable model (Lavee et al., 1985). Therefore, the model proposed in

this study, is also an adaptation of the Double ABCX in order for it to be tested using

Structural Equation Modeling.

There are four differences between the Double ABCX Model of Family Stress

and Adaptation and the model proposed in this study. The next section will discuss

these differences. First, the model proposed in this study is not represented over time,

which was one of the additions McCubbin and Patterson (1983a, 1983b, 1983c) made

to Hill's (1949) original ABCX Model of Family Stress and Crisis. Second, the new model combines the existing resources (b) variable and the new and existing resources (bB) into one resources variable. Third, the new model also does not show reciprocal relationships between the different variables, but instead shows associations between the stressor event and the pile–up of demands, between pile-up of demands and resources, and between perception of the stressor and perception of all. Last, the new model uses perception as a mediating variable between the stressor event, pile-up of demands, resources, and the outcome variable of individual adaptation. The following section is dedicated to describing these changes made to the Double ABCX Model in order for it to be analyzed.

Concept of time. One of the changes that McCubbin and Patterson (1983a, 1983b, 1983c) made to Hill's (1949) ABCX Model of Family Stress and Crisis was to represent adaptation over time since the responses to stress are processes rather than discrete events (McCubbin and Patterson, 1983a, 1983b, 1983c; Walker, 1985). This addition is one of the strengths of the Double ABCX Model. However, this aspect of the model is problematic when analyzing data from a cross-sectional study. Although the Community Needs Assessment Data set asked participants to answer questions that reflected their experiences during the last 12 months, this obviously did not provide the same representation of experiences over time as in longitudinal data. Therefore, the new model proposed in this study does not represent the concept of adaptation over time.

There are two variables that the lack of longitudinal data affects most in this model: existing resources (b) and new and existing resources (bB). The existing resources variable represents resources that the family has available for meeting the demand of the stressor. The new and existing resources variable represents the resources the family had before the stressor event occurred and those they acquired in response to the stressor event. In a cross-sectional study, such as the Community Needs Assessment, there is not a differentiation between the resources a family already had and those acquired specifically to buffer the stressor event. Additionally, existing resources may be measured twice in the model since it is measured in the existing resources variable (b) and in the new and existing resources variable (bB). In order to remedy this dilemma, the proposed empirical model includes one resource variable that includes all resources the individual may be utilize to buffer the effect of the stressor event and the pile-up of demands.

Reciprocal relationships. One of the major components of the Double ABCX Model is that it includes the presence of feedback, a concept described in systems theory. Feedback is represented with double arrows indicating the factors' reciprocal relationships that reflect the demands being met by the capabilities in order to achieve a balance or homeostasis (McCubbin & Patterson, 1983a). While this aspect is important in explaining the theoretical relationship between the factors in the Double ABCX Model, it would be impractical to perform a statistical analysis on a model that features this reciprocal feedback relationship. In fact, in two studies in which McCubbin and Patterson were involved, the researchers did not indicate a reciprocal

relationship in their structural equation model (i.e. Lavee, McCubbin, & Olson, 1987; Lavee, McCubbin, & Patterson, 1985). Instead, the proposed empirical model in these studies consisted of associations between factors that represent their influence on each other (Lavee, McCubbin, & Olson, 1987; Lavee, McCubbin, & Patterson, 1985). There are four associations that will be investigated in this study. These associations will be briefly explained in the following section.

The stressor event and pile-up of demands are associated in the new model because an item can be a pile-up demand due to the presence of the stressor event and the stressor event can be more stressful due to the presence of pile-up demands. For example, during an extended deployment, having children may become a pile-up demand because the civilian spouse essentially becomes a single parent. Moreover, deployment may be more stressful because the military member is worried about her children.

Pile-up of demands and resources are associated because pile-up of demands and resources may have positive relationships. For example, an individual with more pile-up demands may already employ more resources than a person with less pile-up demands. However, a person with more available resources may have less pile-up demands because these demands are buffered by the use of resources.

The stressor event and resources are associated because they influence each other in that existing resources can buffer the effect of the stressor event that the stressor event can lead to accumulation of needed resources to buffer the stressor event.

Further, the perception of the stressor event and the perception of all of the factors are associated because these factors overlap. A positive perception of the stressor event may indicate a positive perception of all of the factors and vice versa.

Role of perception. Boss (1986) indicates that the definition of the situation has been the least investigated factor in the family stress model. However, Lavee, McCubbin, and Olson (1987) point out that the belief that cognitive processes of perception and appraisal are critical mediators between stressful events and their outcomes have gained prominence in both psychological and family stress theories.

The role of perception in the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) is not indicated by a direct path from the perception of the stressor (c) to family adaptation (xX); instead, perception is represented through a reciprocal path with the stressor event and through existing resources and with a direct path from the perception of all of the factors (cC) to adaptation, but also specifies reciprocal paths between pile-up of demands and new and existing resources.

In Hill's (1949) original ABCX Model of Family Stress and Crisis, he proposed that the way families defined events accounted for the presence or prevention of a crisis (Lavee, McCubbin, & Patterson, 1987). McCubbin and Patterson (1983c) indicate that not only does perception play a useful role in facilitating family coping and adaptation, but perception is a critical component in family coping in that it "facilitates family coping and adaptation" (McCubbin and Patterson, 1983a, p. 18). In fact, McCubbin and Patterson (1982, 1983b) theorized that in a post-crisis situation,

perception of the total situation is a critical factor in predicting family adaptation (Lavee, McCubbin, & Olson, 1987).

A couple of studies reflect the importance of perception as a mediating variable in the Double ABCX Model of Family Stress and Adaptation. For instance, Lavee, McCubbin, and Olson (1987) suggest in their empirical model that a sense of coherence would be a mediating factor between the various sources of demand and perceived well-being. Similarly, Lavee, McCubbin, and Patterson (1985) indicate that perception is an intervening factor between crisis and adaptation and is another facilitator of the family's adaptive power. They also state that the ability to perceive the overall situation is of great value to the family in facilitating its adaptation (Lavee, McCubbin, & Patterson, 1985). In fact, the researchers indicate that the confirmatory factor analysis used in their study suggested a stronger tie between coherence and adaptation than were proposed in their empirical model (Lavee, McCubbin, & Patterson, 1985).

Research on military wives has shown a significant relationship between a military wife's perception of the stress of deployment and her well-being (Knapp & Newman, 1993). In other words, a wife's perception regarding the stressfulness of the military life affects her well-being. Similarly, Knapp and Newman (1993) found that there is a significant relationship between an Army wife's level of perceived stress and her psychological well-being (Ickovics, 1987; Knapp & Newman, 1993). Further, Lavee, McCubbin, and Patterson (1985) indicated that coherence occurs when the overall situation is perceived and judged. Symbolic interactionism theory supports this

premise in that the formation of meanings influences an individuals' behavior, in this case adaptation (LaRossa & Reitzes, 1993). If so, perception must be a mediating factor in which an individual perceives the combination of the stressor event, pile-up of demands, and resources in order to achieve adaptation.

As such, the model proposed in this study represents perception as a mediating factor between the stressor event, pile-up of demands, and resources. In essence, the combination of these factors are first perceived by the individual before the individual may adapt to the stressor event and their pile-up of demands. After giving meaning to the stressor (factor a or factor aA), an individual will modify the meaning of the situation (factor c or factor cC) by evaluating the resources (factor b or factor bB) they have available to meet the stressor. Their interpretation of the ability to balance the stressor (factor a or factor aA) with resources (factor b or factor bB) results in the perception of the crisis (factor c or factor cC) and thus the level of adaptation to the stressor event.

CHAPTER 3: METHODS

The Double ABCX Model of Family Stress and Adaptation (McCubbin &

Patterson, 1983a, 1983b, 1983c) provides a strong theoretical model for this study, on

which this study's theoretical model is founded. Both the ABCX Model (Hill, 1949)

and Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson,

1983) and the ABCX Model of Family Stress and Crisis (Hill, 1949) use the family

unit as the unit of analysis. This study, however, focuses on the individual military

member as the unit of analysis rather than the family unit, as each member in the

family unit may not experience the stressor, pile-up of demands, and resources in the

same way, resulting in different levels of adaptation.

This chapter, which presents the study's methodology, is comprised of five

major sections: the methods of the Air Force's 1999-2000 Community Needs

Assessment (CNA), the methods for preparing the data for analysis, the variables

included in both analyses, statistical methods for the Structural Equation Model, and

statistical methods for the Multiple Hierarchical Regression model.

Community Needs Assessment Methods

Purpose

This study utilizes data from the 1999-2000 United States Air Force

Community Needs Assessment, which is the fourth comprehensive survey of the Air

Force that assesses community programs and services. The Community Needs

Assessment is conducted every two years and includes information about the

participants' background, military life, individual and family issues, community

programs and services, the participants' children, and child and youth programs. Appendix A contains the Community Needs Assessment survey and Appendix B contains the Community Needs Assessment codebook.

Data Collection

   Sampling. Data collected for the Community Needs Assessment includes information about military personnel and their spouses at each of the 82 United States Air Force bases in the world. The assessment was conducted using a random sampling method of active duty members and their civilian spouses, independent of each other. Junior enlisted military members (E1-E4), active duty military members, and civilian spouses were intentionally oversampled due to low response rates from these groups in the past (Caliber Associates, 2000). The sample of active duty members was drawn by the Air Force's personnel center. The sample of spouses was drawn from the Defense Enrollment Eligibility Reporting System (DEERS) data that were provided by the Defense Manpower and Data Center (DMDC). The survey distribution and collection was performed from October through December 1999. Active duty members received and completed their surveys at their duty stations. Surveys were mailed directly to civilian spouses with a business return envelope. There was no follow-up for unreturned surveys.

   Response rate. Of the 167,611 surveys distributed, 58,732 completed surveys were returned. Of these, 35,732 were from active duty members and 22,194 were from civilian spouses. The overall response rate was 38%. The response rate was more than

double for active duty members compared to civilian spouses, 55% verses 25%, respectively.

Preparing the Data

Selecting Cases

Since the Community Needs Assessment data set is quite large (N = 58,732) a more manageable subset of data was created containing only the cases that would be analyzed. With the growing population of women in the military, there is a need to study the effect of military deployment on female military personnel. Since this study focused on women who were active duty military members, married, and had experienced deployment, and the data set was narrowed down using this criteria.

First, cases in which the participant was a woman were selected using a question that asks the participant if they are male or female (Q2 = 2). Second, cases in which the participant indicated she was an active duty military member were selected using a question from the survey that asked the participant if she was an active duty military member (Q7 = 2). Third, only cases in which the participant was married were selected using a question in the survey that asked the participant her current marital status (Q3 = 1). Last, cases in which the participant was deployed during the past 12 months were selected if the participant indicated the total times and total days she had been gone for TDYs, deployments, or trainings during the past 12 months (Q12_1 $\neq$ 0; Q12_2 $\neq$ 0). Although the above criterion considerably decreased the number of cases in the data set, 1,819 cases met these criteria.

Missing Values

Several of the items used in the proposed Structural Equation Model contained missing values. In order to provide the most concise statistical analysis, missing values were imputed using SPSS 10.0. A missing value analysis on individual items was conducted before items were combined to create scale variables and index variables. Items in Table 3.1 with an "i" after the variable value have been imputed using expectation maximization. Table 3.1 also contains items in the model and the number of missing values before imputation for each item.

Although the most common approach to missing data is to use Listwise Deletion, this technique simply omits cases with missing data and an analysis is executed only on the cases that remain (Norusis, 2000). Unfortunately, this technique results in a substantial decrease in sample size. Since the significance of a structural equation model is partly based on sample size, Listwise Deletion was not the best option.

The missing value analysis in SPSS 10.0 uses a technique called Expectation Maximization. There are two steps in Expectation Maximization. In the expectation step, SPSS computes expected values based on the observed data and the current estimates of parameters. In the maximization step, SPSS calculates maximum likelihood estimates of the parameters based on values computed in the expectation step.

Scale Variable

Since each variable in the structural equation model can only have one measure, scale variables and index variables were created in order to produce a more

substantial measure of these factors. These scale and index variables are detailed in the next section and listed in Table 3.1.

A reliability analysis was executed in SPSS to determine the appropriateness of the items in the scales. Such an analysis indicates the ability of a measurement tool to consistently give similar results for similar inputs (Keppel & Zedeck, 1989). The assumptions of alpha include: non-biased scale, items have similar mean and standard deviations, and items should have approximately equal correlation values (Keppel & Zedeck, 1989). The items in the scales created for this analysis meet all of the required assumptions.

Ideally, the standardized item alpha should be greater than .80 to be able to say that the scale has good reliability. The reliability analyses show that the scales for social support (α_{std} = .88), perception of all (α_{std} = .8843), and job pile-up are reliable (α_{std} = .88). The scale variables for family resources (α_{std} = .71) and adaptation are fairly reliable (α_{std} = .7089).

Variables

Measures included in the proposed path model are detailed in the following section, organized by its category in the model. Exogenous variables are discussed in the first section and endogenous variables are discussed in the second section. Table 3.1 contains the exogenous and endogenous variables; this table is categorized according to the Structural Equation Model (i.e. stressor event, pile-up of demands, resources, perception of the stressor, perception of all, and adaptation).

Each measure is denoted with its corresponding variable value for ease of location in the 1999-2000 Air Force Community Needs Assessment Survey (Appendix A) and the 2000 Air Force Community Needs Assessment Survey Code Book (Appendix B). Values followed by an 'r' have been recoded and values followed by an 'i' indicate where missing values imputed. Recoding of items will be discussed in the variable's corresponding section.

Exogenous Variables in the Model

Stressor event. As mentioned in the literature review, the "a" factor in the model is the stressor event affecting the family (McCubbin & Patterson, 1982; 1983a; 1983b; 1983c). In this study, the stressor is military deployment. The item for this measure is drawn from a single question in the Community Needs Assessment Survey (Appendix A) and codebook (Appendix B). The question for this measure focuses on the total number of days the participant has been away for TDYs (temporary duty), deployments, or trainings during the past 12 months (Q12_2).

Pile-up of stressors. The next factor in the model is the pile-up of stressors, which refers to the cumulative effect of the pre- and post-crisis stressors and strains (McCubbin & Patterson, 1983a). As stated in Chapter 2, the pile-up factor can refer to any extraneous factors that the family may be experiencing at the time the stressor event occurs (McCubbin & Patterson, 1983a). Measures for the pile-up factor are divided into four categories: marital pile-up, family pile-up, job pile-up, and financial pile-up.

The measure for the first category of pile-up of demands, marital pile-up, focuses on the strength of the marital relationship. This measure indicates how often during the past year the participant has wondered if she should continue her relationship (Q29ri). Answers for this question are based on a four-point Likert scale and were reverse coded so that higher scores indicate more thought about whether or not to continue the relationship and lower scores indicate less thought (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*). This measure is important for the model because Wood and Scarville (1995) have reported that during family separations, stressors such as marital strain intensify the stress of the deployment.

The measure for the second category of pile-up of demands, family pile-up, focuses on strains associated with family members. This measure (fampile) is an index variable that includes seven items from the Community Needs Assessment data set. The first item is part of a multi-part question that asked the participant to indicate events that have occurred in their family during the past 12 months, one of which was the birth or adoption of a child (Q27_3). The second and third items indicate whether the participant had adults or children in their home who had a physical, mental, emotional, or developmental disability or a serious or chronic medical problem (Q35_1ri; Q35_2ri). If the participant did in fact have an adult of child in their home with a disability or chronic medical problem, the participant was asked to indicate whether the adult or child was enrolled in EFMP. Since these items are included in an index variable which counted how many stressors the participants had present in her life, both of these items were recoded to combine two options: "yes (enrolled in

EFMP)" and "yes (not enrolled in EFMP)." The next few items for family pile-up of demands are part of a multi-part question that asked the participant to indicate events that have occurred in their family during the past 12 months: juvenile behavior problems in the participant's family (Q27_11), a family member with a serious health problem (Q27_17), taking on responsibility for an older family member (Q27_18), or a death of a family member (Q27_5). The last item in the family pile-up variable indicates whether a participant was providing any assistance (monetary, emotional, errands, etc.) to an older family member (Q34ri). This item was recoded so that the options of "yes, claim older family member as dependent" and "yes, but don't claim older family member as dependent" became one option; as long as the participant provided assistance to an older family member, this item is considered a pile-up demand, whether or not the participant claims the family member as a dependent. This item was then reverse coded so that lower scores would indicate less pile-up and higher scores would indicate more pile-up (0 = *no*, 1 = *yes*).

Measures for the third category of pile-up of demands, job pile-up, focus on issues related to the military member's job. Several items were combined to create a scale variable (jobpile), which indicate how many situations from a list of job situations impact the participant's ability to perform her military duty to the best of her ability during the past six months. Each of these job situations is scored on a four-point Likert scale with lower scores indicating less impact and higher scores indicating more impact (1 = *not at all*, 2 = *slight extent*, 3 = *moderate extent*, 4 = *great extent*). Originally, the Likert scale included a "does not apply" option (5 = *does not apply*).

Since "does not apply" is not more than "great extent" and not less than "not at all," this option posed a problem in the Likert scale. Therefore, these items were recoded so that the "does not apply" option was combined with the "not at all" option. This choice was rationalized in the fact that if a job situation does not apply to a participant because they have not experienced the particular situation, then the situation also does not influence their ability to perform their military duty. Items for this measure include unpredictable work schedule (Q19_1ri), high OPSTEMPO (high operation tempo or pace) (Q19_2ri), reduced manpower due to deployment (Q19_3ri), 12-hour shifts (Q19_4ri), rotating shifts (Q19_5ri), working after 1800 hours (6 p.m.) (Q19_6ri), working weekends (Q19_7ri), swing shifts (Q19_8ri), midnight shifts (Q19_9ri), conflict with supervisor (Q19_10ri), and a conflict with coworker (Q19_11ri).

The last category in pile-up of demands is financial pile-up of demands. The measure in this category indicates how many months the participant found it difficult to pay her bills during the past 12 months (Q32). The rationale for this measure is founded on evidence that financial difficulties intensify the stress of separation and financial satisfaction, ultimately challenging the general well-being of military wives (Rosen & Moghadam, 1991; Wood and Scarville, 1995).

Resources. The next factor in the model is the family's or individual's resources. Measures for this factor are divided into three categories: personal resources, family system resources (internal resources), and social support.

Measures for the first category, personal resources, focus on assets of individual family members that are available to other family members during a crisis

(McCubbin & Patterson, 1983a). The measure for the personal resources category is the military member or spouse's pay grade (Q9). Pay grades E-1 through E-5 indicate junior enlisted personnel, E-6 through E-9 indicate staff non-commissioned officers and senior enlisted personnel, and O-1 through O-6 indicate commissioned officers. Higher pay grades are considered resources since literature indicates that families who had a more positive adaptation were generally better educated, older spouses, who were married to more senior non-commissioned officers and officers (Bell & Schumm, 1999; Rosen et al., 1994). Additionally, officer status indicates a college education, which is considered a personal resource.

The second category of resources is family system resources. As discussed in the literature review, family system resources are internal characteristics of the family unit. These resources can include cohesion, adaptability, and communication (Lavee et al., 1985; McCubbin & Patterson, 1983a). The measure for this category is a scale variable (famresi) created by combining two measures. The first item in the scale variable measures the cooperation of all members of the family to get things done (Q23_1ri). This item is based on a five-point Likert scale with lower scores indicating less chance of getting things done and higher scores indicating more chance of getting things done (1 = *there is almost no chance that things will get done*, 2 = *there is some chance that things will get done*, 3 = *there is a moderate chance that things will get done*, 4 = *there is a good chance that things will get done*, 5 = *things will always get done*). The second item in the scale indicates the family's hope of solving a tough problem (Q23_2ri). This item is based on a five-point Likert scale with lower scores

indicating less hope of solving the problem and higher scores indicating more hope of solving the problem (1 = *there is no hope of solving the problem*, 2 = *there is some hope of solving the problem*, 3 = *there is moderate hope of solving the problem*, 4 = *there is a lot of hope of solving the problem*, 5 = *we will solve the problem*). Both of these items have a "does not apply" option. Since all participants in the subset of data that was to be analyzed were married, they all have families. There was no rationale for these questions not applying to the participants. Therefore, the "does not apply" option was coded as missing data because the participants may not have understood the question or did not consider that a marital dyad fits into the definition of a family.

The last category for the factor of resources is social support resources. Measures for social support resources focus on community support for families. The measure for this category is an index variable created by counting how many people or resources the participant turns to for help with personal and family problems. The items used to create this index indicate whom the participant turns to for help with a personal problem (Q33A_1 to Q33A_11) and for help with a family problem (Q33B_1 to Q33B_11) (0 = *unmarked*, 1 = *marked*), and were summed across the two types of problems to indicate all of the people or resources the participants used. The following are options offered for these questions: no one (Q33A_1; Q33B_1), friend (Q33A_2; Q33B_2), coworker (Q33A_3; Q33B_3), spouse (Q33A_4; Q33B_4), other family member/extended family (Q33A_5; Q33B_5), neighbor (Q33A_6; Q33B_6), unit commander (Q33A_7; Q33B_7), first sergeant (Q33A_8; Q33B_8), supervisor

(Q33A_9; Q33B_9), service provider on base (Q33A_10; Q33B_10), and service

provider off base (Q33A_11; Q33B_11).

Endogenous Variables in the Model

  Perception of the stressor. The "c" factor is the definition the family makes of

the seriousness of the stressor event (McCubbin & Patterson, 1983a; 1983c). The

measure for this factor is an index variable created with two items which ask the

participant to mark the top five issues of concern across the Air Force. If the

participant marked the number of deployment/TDYs (QB45_10) or the length of

deployment/TDYs (Q45B_11) as one of their top five concerns in the Air Force then

these items were counted in the index (0 = *unmarked*, 1 = *marked*).

  Perception of all. The factor, perception of all, refers to the meaning the family

or the individual gives to the total crisis situation. Perception includes the definition of

the stressor that caused the crisis, the added stressors and strains, old and new

resources, and estimates of what needs to be accomplished to bring the family back to

a homeostatic state (McCubbin et al., 1983). However, for empirical reasons in

selecting items to measure this variable, the measures for this variable were narrowed

down to a perception of the participant's social support. This category is measured by

a scale variable (deploysup), created with several items, and measures the participant's

perception of supportiveness of groups or programs when their spouse is deployed or

TDY. For these items (Q43_1r to Q43_13r), the participants was asked to rate their

satisfaction level with each group or program while their spouse is deployed; these

items are based on a three-point Likert scale, with lower scores indicating less support

and higher scores indicating more support (1 = *not at all supportive*, 2 = *somewhat supportive*, 3 = *very supportive*). These items also had an option of "no experience" with the group or program. If a participant did not have experience with a group or program, this means that the group or program is not a support to them. Because of this, these items have been recoded so that the "no experience" option was combined with the "not at all supportive" option. The groups and programs are as follows: wing leadership (Q43_1r), group leadership (Q43_2r), unit leadership (Q43_3r), supervisor (Q43_4r), unit spouses (Q43_5r), neighbors (Q43_6r), chapel (Q43_7r), child development and youth programs (Q43_8r), family advocacy program (Q43_9r), family support center (q43_10r), mental health (Q43_11r), health and wellness center (Q43_12r), and civilian community resources (Q43_13r).

Adaptation. Adaptation is the outcome variable in the model which is the outcome of the stressor event, pileup of demands, and resources buffered by the individual's perception (McCubbin & Patterson, 1983a; 1983b; 1983c). The first measure for the outcome variable of adaptation is a scale variable created by two items. The first item indicates the participant's success at managing his or her duty (work) responsibilities (Q21_1r) and the participant's success at managing his or her family responsibilities (Q21_2r). These measures are based on a five-point Likert scale, with lower scores indicating less success and higher scores indicating more success (1 = *not at all successful*, 2 = *somewhat successful*, 3 = *moderately successful*, 4 = *very successful*, 5 = *extremely successful*). These items also have a "does not apply" option. Since all of these items pertain to the participants in the subset of data

(they are all married and all active duty military), if the participant marked "does not apply," this was taken that the participant did not understand the question. Therefore, the "does not apply" option was recoded as missing data and values were imputed using a missing values analysis.

Table 3.1. Variables for Deployment, Pile-up of Demands, Resources, Perception, and

Adaptation Model.

Variable in Model	Measure	Variable Name	Missing Values
Deployment	For TDYs, deployments, or trainings in the past 12 months, please indicate how many total days you have been away.	Q12_2	0
Pile-up of demands			
Marital pile-up	How often in the past year have you wondered whether you should continue your relationship?	Q29ri	20
Family pile-up	For the events listed below mark those that have happened in your family in the past 12 months: birth of child(ren)/ adoption	Q27_3	0
	Do any children living in your home have a physical, mental, emotional, or developmental disability or a serious or chronic medical problem?	Q35_2r	95
	Do any adults living in your home have a physical, mental, emotional, or developmental disability or a serious or chronic medical problem	Q35_1r	114
	For the events listed below mark those that have happened in your family in the past 12 months: juvenile behavior problem	Q27_11	0
	For the events listed below mark those that have happened in your family in the past 12 months: serious health problems	Q27_17	0
	For the events listed below mark those that have happened in your family in	Q27_18	0

	the past 12 months: taking on responsibility for older family member		
	Are you providing any assistance (monetary, emotional, errands, etc.) to an older family member?	Q34r	23
	For the events listed below mark those that have happened in your family in the past 12 months: divorce/separation	Q27_5	0
Job pile-up	In the past six months, to what extent did any of the following job situations impact your ability to perform your military duty the best you can?		
	Unpredictable work schedule	Q19_1r	192
	High OPSTEMPO	Q19_2r	209
	Reduced manpower due to deployment	Q19_3r	189
	12 hour shifts	Q12_4r	195
	Rotating shifts	Q19_5r	194
	Working after 1800 hours	Q19_6r	198
	Working weekends	Q19_7r	194
	Swing shifts	Q19_8r	198
	Midnight shifts	Q19_9r	197
	Conflict with supervisor	Q19_10r	191
	Conflict with coworker	Q19_11r	193
Financial pile-up	In the past 12 months, how many months have you found it difficult to pay your bills?	Q32	41

Resources			
Personal resources	What is your or your spouse's pay grade?	Q9	26
Family system resources	When we have to get things done that depend on cooperation of all members of the family . . . level of chance that things will get done	Q23_1r	91
	When my family faces a tough problem . . . level of hope of solving the problem	Q23_2r	61
Social support	Who do you turn to for help with a personal problem (A)? Family problem (B)?		
	Friend	Q33A_2	0
		Q33B_2	0
	Co-worker	Q33A_3	0
		Q33B_3	0
	Spouse	Q33A_4	0
		Q33B_4	0
	Other family member/extended family	Q33A_5	0
		Q33B_5	0
	Neighbor	Q33A_6	0
		Q33B_6	0
	Unit commander	Q33A_7	0
		Q33B_7	0
	First sergeant	Q33A_8	0
		Q33B_8	0
	Supervisor	Q33A_9	0
		Q33B_9	0
	Service provider on base	Q33A_10	0

		Q33B_10	0
	Service provider off base	Q33A_11	0
		Q33B_11	0
Perception			
Perception of stressor	Mark the top five issues of concern across the Air Force as a whole: number of deployment/TDYs	Q45_10	0
	Mark the top five issues of concern across the Air Force as a whole: length of deployments/TDYs	Q45B_11	0
Perception of all	How supportive do you feel the following groups or programs have been for you and your family, at this base, when you or your spouse was deployed or TDY in the past 12 months?		
	Wing leadership	Q43_1r	173
	Group leadership	Q43_2r	170
	Unit leadership	Q43_3r	163
	Unit spouses	Q43_4r	179
	Neighbors	Q43_5r	176
	Chapel	Q43_6r	208
	Child development and youth programs	Q43_7r	194
	Family advocacy program	Q43_8r	210
	Family support center	Q43_9	198
	Mental health	Q43_10r	211

	Health and wellness center	Q43_11r	207
	Civilian community resources	Q43_12r	196
Individual adaptation	At the present time, how successful are you at managing your duty responsibilities?	Q21_1r	170
	At the present time, how successful are you at managing your family responsibilities?	Q21_2r	177

Note. N = 1819. The letter 'r' after a variable name indicates that the variable was recoded. The letter 'i' after a variable name indicates that missing values were imputed. All items are located in the 1999-2000 Air Force Community Needs Assessment Survey and the1999-2000 Air Force Community Needs Assessment Code Book (Appendix A and Appendix B, respectively).

Structural Equation Modeling

Structural Equation Modeling was used to analyze the data by means of a widely used program, Linear Structural Relations (LISREL 8.5) (Byrne, 1998). Structural equation modeling is a large-sample technique, and most models require at least 200 or 300 cases (Kline, 1998). The subset of the Community Needs Assessment created for this analysis meets this criteria ($N = 1819$).

Since the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983) contains the concept of adaptation over time, a longitudinal analysis would be ideal. However, the Community Needs Assessment is not a longitudinal data set; therefore, the Structural Equation Model used for this study was adapted to represent a cross-sectional study, thereby revising the existing Double ABCX Model (McCubbin & Patterson, 1983). However, since many of the questions ask respondents to answer questions retrospectively about deployment, pile-up demands, use of resources, and perceptions during the past 12 months, the Double ABCX conceptual model can be justified. The proposed path diagram is the study's model, represented in Figure 4.
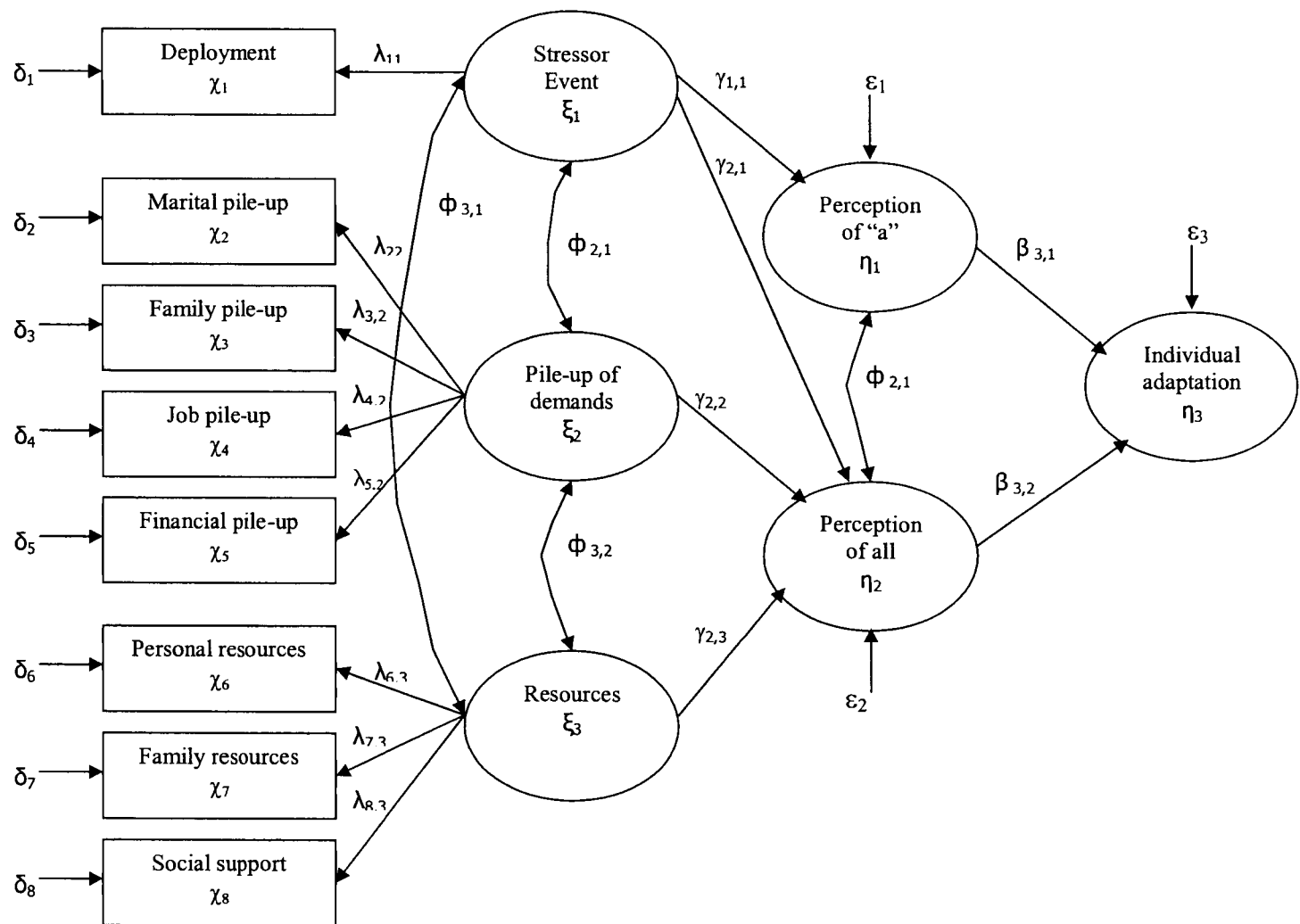
Figure 3.1. Proposed path-analytic model: Association of deployment, pile-up of demands, resources, perception of deployment, and perception of all factors on adaptation.

First, matrices were created for Lambda-X, Beta, Gamma, Psi, and Theta-Delta; these matrices are presented in Appendix C. Next, a measurement model and structural model were created. These models are presented in Appendix D. Third, correlations and standard deviations were executed on all of the variables in the model, as this information is needed to create the LISREL syntax. Fourth, the syntax was written in order to execute the Structural Equation Model; this syntax is presented in Appendix E.

Regression

Since the Structural Equation Model that was specified failed to converge after 300 iterations, and there was no way to theoretically modify the model to make it converge, a Multiple Hierarchical Regression was executed in order to determine which variables in the path model contribute to adaptation among married women in the military. SPSS 10.0 was used to run the Multiple Hierarchical Regression.

Regression analysis is a statistical technique used to assess the relationship between a dependent variable and several independent variables (Tabachnick & Fidell, 1996). In this study, the independent variables were entered into the analysis according to the theoretical consideration of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a; 1983b; 1983c) and in the order of the proposed Structural Equation Model. The measures for all variables used in the regression are the same as those used in the Structural Equation Model. These variables are listed in Table 3.2 and were detailed previously in this chapter.

First, independent variables (x-variables) were entered in the regression analysis. The stressor event of deployment was evaluated in the first model. The second model added the variable of pile-up, which includes family pile-up, marital pile-up, job pile-up, and financial pile-up. The third model added the variable of resources, which includes personal resources, family resources, and social support resources. The fourth model added the variable of perception, which includes perception of the stressor event and perception of all of the factors in the Structural Equation Model. Adaptation was entered as the dependent variable (y-variable).

Table 3.2. Variables in the Multiple Hierarchical Regression Analysis.

	Variable in Model	Measure	Variable Name
y_1	**Individual adaptation**	Scale variable At the present time, how successful Are you at managing your duty responsibilities? (Q21_1r) At the present time, how successful are you at managing your family responsibilities? (Q21_2r)	adapti
x_1	**Deployment**	For TDYs, deployments, or trainings in the past 12 months, please indicate how many total days you have been away.	Q12_2
x_2	**Pile-up of demands**		
	Marital pile-up	How often in the past year have you wondered whether you should continue your relationship?	Q29ri
	Family pile-up	Index variable created by combining the following: For the events listed below mark those that have happened in your family in the past 12 months: birth of child(ren)/ adoption (Q27_3) Do any children living in your home have a physical, mental, emotional, or developmental disability or a serious or chronic medical problem? (Q35_2ri) Do any adults living in your home have a physical, mental, emotional, or developmental disability or a serious or chronic medical problem (Q35_1ri)	fampile

For the events listed below mark those that have happened in your family in the past 12 months: juvenile behavior problem (Q27_11)

For the events listed below mark those that have happened in your family in the past 12 months: serious health problems (Q27_17)

For the events listed below mark those that have happened in your family in the past 12 months: taking on responsibility for older family member (Q27_18)

Are you providing any assistance (monetary, emotional, errands, etc.) to an older family member? (Q34r)

For the events listed below mark those that have happened in your family in the past 12 months: divorce/separation (Q27_5)

Job pile-up   In the past six months, to what extent did any of the following job situations impact your ability to perform your military duty the best you can?   jobpile

Unpredictable work schedule (Q19_1ri)

High OPSTEMPO (Q19_2ri)

Reduced manpower due to deployment (Q19_3ri)

12 hour shifts (Q12_4ri)

Rotating shifts (Q19_5ri)

		Working after 1800 hours (Q19_6ri)	
		Working weekends (Q19_7ri)	
		Swing shifts (Q19_8ri)	
		Midnight shifts (Q19_9ri)	
		Conflict with supervisor (Q19_10ri)	
		Conflict with coworker (Q19_11ri)	
	Financial pile-up	In the past 12 months, how many months have you found it difficult to pay your bills?	Q32i

x₃ Resources

	Personal resources	What is your or your spouse's pay grade?	Q9i
	Family system resources	Family cooperation and problem-solving ability	famresi
		When we have to get things done that depend on cooperation of all members of the family . . . level of chance that things will get done (Q23_1ri)	
		When my family faces a tough problem . . . level of hope of solving the problem (Q23_2ri)	
	Social support	Who do you turn to for help with a personal problem (A)? Family problem (B)?	supindex
		Friend (Q33A_2; Q33B_2)	
		Co-worker (Q33A_3; Q33B_3)	
		Spouse (Q33A_4; Q33B_4)	

Other family member/extended family (Q33A_5; Q33B_5)

Neighbor (Q33A_6; Q33B_6)

Unit commander (Q33A_7; Q33B_7)

First sergeant (Q33A_8; Q33B_8)

Supervisor (Q33A_9; Q33B_9)

Service provider on base (Q33A_10; Q33B_10)

Service provider off base (Q33A_11; Q33B_11)

x_4 **Perception**   perstres

Perception of stressor

Index variable of the participant's perception of stress:
Mark the top five issues of concern across the Air Force as a whole: number of deployment/TDYs (Q45_10)

Mark the top five issues of concern across the Air Force as a whole: length of deployments/TDYs (Q45B_11)

Perception of all

How supportive do you feel the following groups or programs have been for you and your family, at this base, when you or your spouse was deployed or TDY in the past 12 months?   deplosup

Wing leadership (Q43_1r)

Group leadership (Q43_2r)

Unit leadership ((Q43_3r)

Supervisor (Q43_4r)

Unit spouses (Q43_5r)

Neighbors (Q43_6r)

Chapel (Q43_7r)

Child development and youth
programs (Q43_8r)

Family advocacy program (Q43_9)

Family support center (Q43_10r)

Mental health (Q43_11r)

Health and wellness center
(Q43_12r)

Civilian community resources
(Q43_13r)

Note. The letter 'r' after a variable name indicates that the variable was recoded. The letter 'i' after a variable name indicates that missing values were imputed. Variables with numerical values in the name may be found in the 1999-2000 Air Force Community Needs Assessment Survey (Appendix A) and the 1999-2000 Air Force Community Needs Assessment Code Book (Appendix B).

CHAPTER 4: RESULTS

This study analyzed the 1999-2000 United States Air Force's Community

Needs Assessment using Structural Equation Modeling and Multiple Hierarchical

Regression to explore the factors that lead to positive adaptation among married

women in the military during the stressor of deployment. The empirical model for this

study is based on the Double ABCX Model of Family Stress and Adaptation

(McCubbin & Patterson, 1983a, 1983b, 1983c). In this study's empirical model, the

variables that lead to adaptation include the stressor event of military deployment,

pile-up of demands (marital pile-up, family pile-up, financial pile-up, and job pile-up),

resources (personal resources, family system resources, and social support resources),

and perception (perception of deployment and perception of all).

Since the Structural Equation Modeling Analysis did not yield a model, a

Multiple Hierarchical Regression was executed in order to determine which variables

in the path model contribute to adaptation among married women in the military. In

this analysis, the independent variables were entered according to the theoretical

consideration of the Double ABCX Model of Family Stress and Adaptation

(McCubbin & Patterson, 1983a, 1983b, 1983c) and the proposed path model; these

variables are detailed in Chapter 3 and are listed in Table 3.2. First, independent

variables (x-variables) were entered in the regression analysis. The stressor event of

deployment was evaluated in the first model. The second model added the variable of

pile-up, which includes family pile-up, marital pile-up, job pile-up, and financial pile-

up. The third model added the variable of resources, which includes personal

resources, family resources, and social support resources. The fourth model added the variable of perception, which includes perception of the stressor event and perception of all of the factors in the Structural Equation Model. Adaptation was entered as the dependent variable (y-variable).

This chapter presents the results of the analyses. The first section will present the descriptive statistics and intercorrelations for all of the variables in the empirical model. Exogenous and endogenous variables are listed in Table 3.1 and categorized according to the proposed model (i.e. stressor event, pile-up of demands, and resources). Table 4.1 contains the means, standard deviations, and intercorrelations for the variables analyzed in this study. The second section presents the results of the Structural Equation Model analysis. Table 4.2 contains the results of the Structural Equation Modeling analysis. The last section presents the results of the Multiple Hierarchical Regression analysis. Table 4.3 contains the results of the Multiple Hierarchical Regression analysis. Appendix A contains the 1999-2000 Air Force Community Needs Assessment Survey and Appendix B contains the 2000 Air Force Community Needs Assessment Survey Code Book, both of which include the measures for the variables that were analyzed in this study as well as the response categories for each measure.

Descriptive Statistics

Stressor event. The "a" factor in the model is the stressor event affecting the family (McCubbin & Patterson, 1982, 1983a, 1983b, 1983c). In this study's model, the stressor is the military deployment. This variable is measured by a single item that

indicated how many days during the past 12 months the participant was away for

TDYs, deployments, or trainings (Q12_2). According to Table 4.2, participants were

deployed or TDY for an average of almost two months during the past year ($M =$

52.05, $SD = 52.45$), with almost 90% of participants deployed for four months or less.

Table 4.1 presents the distribution of the participants' deployment.

According to Table 4.2, there is a significant positive relationship between the

stressor variable of deployment and job pile-up ($r = 0.128, p < 0.001$), between

deployment and personal resources ($r = -0.137, p < 0.001$), between deployment and

the participants' perception of the stressor ($r = 0.097, p < 0.001$), and between

deployment and the participants' perception of all ($r = 0.76, p < 0.001$).

Table 4.1.

Descriptive Statistics for Deployment.

Deployment in Days	*n*	%
0	0	0.0%
1-30	912	50.1%
31-60	377	20.8%
61-90	165	9.0%
91-120	167	9.2%
121-150	105	5.8%
151-180	58	3.2%
181-210	19	1.0%
211-240	4	0.2%
241-270	4	0.3%
271-300	2	0.1%
301-330	1	0.1%
331-360+	4	0.2%

Note. N = 1819. *X* = 52.05.

Table 4.2

Intercorrelations, Means, and Standard Deviations of Variables in Model

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Deployment	---	0.003	-0.002	0.128**	0.022	-0.137**	-0.024	-0.007	-0.097**	0.076**	0.002
2. Marital pile-up		---	0.062**	0.120**	0.184**	-1.44**	-0.392**	0.026	-0.043	-0.002	-0.201**
3. Family pile-up			---	0.085**	0.121**	-0.024	-0.081**	0.093**	-0.017	-0.007	-0.081**
4. Job pile-up				---	0.180**	-0.100**	-0.264**	0.041	0.039	0.018	-0.272**
5. Financial pile-up					---	-0.170**	-0.224**	0.035	-0.098**	-0.050**	-0.187**
6. Personal resources						---	0.057*	-0.057*	0.066*	0.013	-0.042
7. Family system resources							---	-0.032	0.018	0.045	0.445**
8. Social support resources								---	0.013	0.053*	-0.017
9. Perception of stressor									---	-0.060*	0.010
10. Perception of all										---	-0.007
11. Adaptation											---
M	52.05	1.81	1.04	1.49	1.52	6.98	4.38	4.99	0.96	1.48	4.12
SD	52.445	1.019	1.180	0.552	2.960	2.423	0.669	2.877	0.893	0.492	0.702

Note. N=1819
**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

Pile-up of stressors. The next factor in the model is the pile-up of stressors, which refers to the cumulative effect of the pre- and post-crisis stressors and strains (McCubbin & Patterson, 1983a). Measures for the pile-up factor are divided into four categories: marital pile-up, family pile-up, job pile-up, and financial pile-up.

The measure for the first category of pile-up of demands, marital pile-up, indicates how often in the past year the participant has wondered if she should continue her relationship (Q29ri). Higher scores indicate more thought about whether or not to continue the relationship and lower scores indicate less. According to Table 4.2, most participants rarely wondered whether they should continue their relationship during the past year ($M = 1.81$, $SD = 1.02$).

As the correlation matrix in Table 4.2 shows, there are significant positive relationships between marital pile-up and family pile-up ($r = 0.62$, $p < 0.008$), between marital pile-up and job pile-up ($r = 0.120$, $p < 0.001$), between marital pile-up and financial pile-up ($r = 0.184$, $p < 0.001$), and between marital pile-up and personal resources ($r = -1.44$, $p < 0.000$). There are significant negative relationships between marital pile-up and family system resources ($r = -0.392$, $p < 0.001$) and between marital pile-up and adaptation ($r = -0.201$, $p < 0.001$).

The measure for the second category of pile-up of demands, family pile-up, focuses on strains associated with family members. This measure (fampile) is an index variable which indicates events that have occurred in the participant's family during the past 12 months. According to Table 4.2, participants generally experience at least one of the family pile-up events included in the index ($M = 1.04$; $SD = 1.18$).

As the correlation matrix in Table 4.2 shows, there are significant positive relationships between family pile-up and marital pile-up ($r = 0.062$, $p < 0.008$), between family pile-up and job pile-up ($r = 0.85$, $p < 0.001$), between family pile-up and financial pile-up ($r = 0.121$, $p < 0.001$), and between family pile-up and social support resources ($r = 0.093$, $p < 0.001$). There are significant negative relationships between family pile-up and family system resources ($r = -0.081$, $p < 0.001$) and between family pile-up and adaptation ($r = -0.081$, $p < 0.001$).

The third category of pile-up of demands, job pile-up, is measured by a scale variable (jobpile), which indicates how many situations in the list of job situations impact the participant's ability to perform her military duty to the best of her ability during the past six months. Lower scores indicate less impact and higher scores indicate more impact. According to Table 4.2, the job pile-up situations only slightly impacted the participants' ability to perform her military duty to the best of her ability ($M = 1.49$, $SD = 0.55$).

There are significant positive relationships between job pile-up and deployment ($r = 0.128$, $p < 0.001$), between job pile-up and marital pile-up ($r = 0.120$, $p < 0.001$), between job pile-up and family pile-up ($r = 0.085$, $p < 0.001$), and between job pile-up and financial pile-up ($r = 0.180$, $p < 0.001$). There are significant negative relationships between job pile-up and personal resources ($r = -0.100$, $p < 0.001$), between job pile-up and family system resources ($r = -0.264$, $p < 0.001$), and between job pile-up and adaptation ($r = -0.272$, $p < 0.001$).

The last category in pile-up of demands is financial pile-up of demands. The measure in this category indicates how many months that participant found it difficult to pay their bills in the past 12 months (Q32). According to Table 4.2, most participants had very little financial pile-up. In fact, the average number of months participants found it difficult to pay their bills was only one to two months during the past 12 months ($M = 1.52$, $SD = 2.96$).

According to the correlation matrix on Table 4.2, there are significant positive relationships between financial pile-up and marital pile-up ($r = 0.184$, $p < 0.001$), between financial pile-up and family pile-up ($r = 0.121$, $p < 0.001$), and between financial pile-up and job pile-up ($r = 0.180$, $p < 0.001$). There are significant negative relationships between financial pile-up and personal resources ($r = -0.170$, $p < 0.001$), between financial pile-up and family system resources ($r = -0.224$, $p < 0.001$), between financial pile-up and the perception of the stressor ($r = -0.098$, $p < 0.135$), between financial pile-up and the perception of all ($r = -0.050$, $p < 0.001$), and between financial pile-up and adaptation ($r = -0.187$, $p < 0.001$).

Resources. The next factor in the model is the family's or individual's resources. Measures for this factor are divided into three categories: personal resources, family system resources (internal resources), and social support resources.

Measures for the first category, personal resources, is measured by the military member or spouse's pay grade (Q9). Higher scores indicate higher pay grades. Junior enlisted military members accounted for 50.5% of participants (E-1 to E-5), senior enlisted members accounted for 23.2% of participants (E-6 to E-9), and officers

accounted for 43.3% of participants (O-1 to O-6); however, according to Table 4.2, because of a high percentage of junior enlisted members and a high percentage of officers, the mean reflects that most participants were in the middle of the military ranks (M = 6.98, SD = 2.42).

There are significant negative relationships between personal resources and deployment (r = -0.137, p < 0.001), between personal resources and marital pile-up (r = -0.144, p < 0.001), between personal resources and job pile-up (r = -0.100, p < 0.000), between personal resources and financial pile-up (r = -0.170, p < 0.001), and between personal resources and social support resources (r = -0.057, p < 0.014). There are significant positive relationships between personal resources and family system resources (r = 0.057, p < 0.015) and between personal resources and the perception of the stressor (r = 0.066, p < 0.005).

The second category of resources is family system resources, measured by a scale variable (famresi), containing an item that measure the cooperation of all members of the family to get things done (Q23_1ri) and the family's hope of solving a tough problem (Q23_2ri). Higher scores indicate greater family system resources. According to Table 4.1, most participants possessed a high amount of family system resources (M = 4.38, SD = 0.67).

There are significant positive relationships between family resources and personal resources (r = 0.057, p < 0.015) and between family system resources and adaptation (r = 0.445, p < 0.001). There are significant negative relationships between family resources and marital pile-up (r = -0.392, p < 0.001), between family resources

and family pile-up ($r = -0.081$, $p < 0.001$), between family pile-up and job pile-up ($r = -0.264$, $p < 0.001$), and between family pile-up and financial pile-up ($r = -0.224$, $p < 0.001$).

The last category for the factor of resources is social support resources. The measure for this category focuses on community support for families and is an index variable created by counting how many people or resources the participant turns to for help with personal and family problems (supindex). According to Table 4.1, participants generally had about five social support resources that they turned to for help with personal or family problems ($M = 4.99$, $SD = 2.88$).

There are significant positive relationships between social support resources and family pile-up ($r = 0.093$, $p < 0.001$) and between social support resources and perception of all ($r = 0.053$, $p < 0.025$). There is a significant negative relationship between social support resources and personal resources ($r = -0.057$, $p < 0.014$).

Perception of the stressor. Perception of the stressor is the definition the family makes of the seriousness of the stressor event (McCubbin & Patterson, 1983a, 1983c). This variable is measured by an index variable that counts participants who marked the number of deployment/TDYs or the length of deployment/TDYs as concerns they have with the Air Force (perstress). According to Table 4.1, most participants were concerned with either the number or the length of deployment/TDYs ($M = 0.96$, $SD = 0.89$).

There are significant positive relationships between the perception of the stressor and deployment ($r = 0.097$, $p < 0.001$) and between the perception of the

stressor and personal resources ($r = 0.066, p < 0.005$). There are significant negative relationships between the perception of the stressor and financial pile-up ($r = -0.098, p < 0.001$) and between the perception of the stressor and the perception of all ($r = -0.060, p < 0.010$).

Perception of all. The factor, perception of all, refers to the meaning the family or the individual gives to the total crisis situation. This category is measured by a scale variable (deploysup) that measures the participant's perception of supportiveness of groups or programs when their spouse is deployed or TDY. Higher scores indicate more support. According to Table 4.1, most participants reported that they felt that the groups and programs available during deployment or TDY were either not at all supportive to somewhat supportive ($M = 1.48, SD = 0.49$).

There is a significant positive relationship between the perception of all and deployment ($r = 0.076, p < 0.001$) and between the perception of all and social support resources ($r = 0.053, p < 0.025$). There is also a negative significant relationship between the perception of all and financial pile-up ($r = -0.050, p < 0.032$) and between the perception of all and the perception of the stressor event ($r = -0.060, p < 0.010$).

Adaptation. Adaptation, the outcome variable in the model, is the product of the stressor event and the pileup of demands buffered by the family's resources (McCubbin & Patterson, 1983a, 1983b, 1983c). Adaptation is measured by a scale variable including participant's success at managing his or her duty (work) responsibilities (Q21_1r) and the participant's success at managing his or her family responsibilities (Q21_2r). Higher scores indicate more success. According to Table

4.1, the participants in this study were very successful at managing their duty and family responsibilities (*M* = 4.12, *SD* = 0.70).

There is a significant positive relationship between adaptation and family resources ($r = 0.445, p < 0.001$). There are significant negative relationships between adaptation and marital pile-up ($r = -0.201, p < 0.001$), between adaptation and family pile-up ($r = -0.081, p < 0.001$), between adaptation and job pile-up ($r = -0.272, p < 0.000$), and between adaptation and financial pile-up ($r = -0.187, p < 0.001$).

Structural Equation Modeling

Structural Equation Modeling was performed using Linear Structural Relations (LISREL 8.5) (Byrne, 1998). Unfortunately, the model that was specified failed to converge after 300 iterations, and there was no way to theoretically modify the model to make it converge.

Multiple Hierarchical Regression

Since the Structural Equation Model failed to converge, a Multiple Hierarchical Regression was executed in order to determine which factors in the proposed model contribute most to individual adaptation. Independent variables were entered in the order of the proposed Structural Equation Model.

In this study, the independent variables were entered into the analysis according to the theoretical consideration of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) and in the order of the proposed Structural Equation Model. First, independent variables (x-variables) were entered in the regression analysis. The stressor event of deployment was

evaluated in the first model. The second model added the variable of pile-up, which included family pile-up, marital pile-up, job pile-up, and financial pile-up. The third model added the variable of resources, which includes personal resources, family resources, and social support resources. The fourth model added the variable of perception, which includes perception of the stressor event and perception of all of the factors in the Structural Equation Model. Adaptation was entered as the dependent variable (y-variable).

The first model, which included the stressor event of deployment, had an $R^2 = 0.000$ ($p < .935$), which means that 0% of the variance in adaptation can be explained by deployment. This is not surprising since the two variables were not correlated.

The second model, which added the variables of family pile-up, marital pile-up, job pile-up, and financial pile-up, had an $R^2 = .119$ ($p < 0.001$), which means that 12% of the variance in adaptation can be explained by pile-up of demands. However, within the pile-up category, marital pile-up and job pile-up were more statistically significant ($\beta = -0.150, p < 0.0001$; $\beta = -0.235, p < 0.0001$) than family pile-up and financial pile-up ($\beta = -0.038, p < 0.086$; $\beta = -0.114, p < 0.0001$).

The third model, which added the variables of personal resources, family resources, and social support resources, had an $R^2 = .239$ ($p < 0.001$), which means that 24% of the variance in adaptation can be explained by pile-up of demands and resources. The category of resources adds about 12% to the variance. In this model, family resources is the more statistically significant ($\beta = 0.374, p < 0.0001$) than

personal resources and social support resources (β = -0.095, p < 0.0001; β = 0.002, p < 0.911).

The fourth model, which added the variables of perception of the stressor and perception of all, had an R^2 = .240 (p < 0.451), which means that 24% of the variance in adaptation can be explained by pile-up of demands, resources, and perception. However, perception only adds about a tenth of a percent to the variance.

Table 4.3.

Hierarchical Regression Analysis Summary for Stressor, Pile-up, Resources, and Perception Predicting Adapation.

Variable	Model 1		Model 2		Model 3		Model 4	
	b	β	b	β	b	β	b	β
Deployment	2.547E-05	0.002	0.000	0.3035	0.000	0.021	0.000	0.023
Marital pile-up			-0.103	-0.150***	-0.022	-0.032	-0.021	-0.031
Family pile-up			-0.023	-0.038	-0.017	-0.028	-0.017	-0.028
Job pile-up			-0.299	-0.235***	-0.210	-0.165***	-0.209	-0.164***
Financial pile-up			-0.027	-0.114***	-0.019	-0.081***	-0.020	-0.082***
Personal resources					-0.019	-0.095***	-0.019	-0.095***
Family resources					0.392	0.374***	0.394	0.375***
Social support resources					0.001	0.002	0.001	0.004
Perception of stressor							0.002	0.002
Perception of all							-0.037	-0.026
R^2	0.001		0.119		0.239		0.240	
R_{adj}^2	-0.001		0.116		0.236		0.236	

F for change in R^2	0.007	61.010***	95.474***	0.798

Note. N = 1819.

*p < 0.05. **p < .01. ***p < 0.001

CHAPTER 5: DISCUSSION AND CONCLUSION

This study explored factors that lead to a positive adaptation among married women in the military during the stressor of deployment. The Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) provided a strong theoretical model for this study, on which the empirical model for this study was based. In this study's empirical model, the variables that led to adaptation include the stressor event of military deployment, pile-up of demands (marital pile-up, family pile-up, financial pile-up, and job pile-up), resources (personal resources, family system resources, and social support resources), and perception (perception of deployment and perception of all). The 1999-2000 United States Air Force Community Needs Assessment (Appendix A) was analyzed using Structural Equation Modeling and Multiple Hierarchical Regression.

Since the Structural Equation Modeling Analysis did not yield a path model, a Multiple Hierarchical Regression was executed in order to determine which variables in the path model contribute to adaptation among married women in the military. In this analysis, the independent variables were entered according to the theoretical consideration of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) and the proposed path model; these variables are detailed in Chapter 3 and are listed in Table 3.2. First, independent variables (x-variables) were entered in the regression analysis. The stressor event of deployment was evaluated in the first model. The second model added the variable of pile-up, which includes family pile-up, marital pile-up, job pile-up, and financial pile-

up. The third model added the variable of resources, which includes personal resources, family resources, and social support resources. The fourth model added the variable of perception, which includes perception of the stressor event and perception of all of the factors in the proposed model. Adaptation was entered as the dependent variable (y-variable).

This chapter includes a discussion and interpretation of the Multiple Hierarchical Regression analysis and a conclusion to this thesis. First, the findings of the study are presented, with a discussion of each of the variables' influence on adaptation in the order of the variables in the model (stressor event, pile-up of stressors, resources, and perception). Second, the limitations of this study will be discussed, followed by the benefits of this study. Last, suggestions for future research will be presented.

Findings

Deployment. Contrary to the expectation, deployment did not influence the individual's level of adaptation, as evidenced by the fact that the first regression model showed that 0% of the variance in adaptation was explained by deployment. This finding is surprising because the literature on military families states that prolonged and enforced separation of the service member from the family is possibly the most severe job related stress a military family experiences (Knapp & Newman, 1993; Lagrone, 1978; Schumm et al., 1996). Further, research has also found that separations have a negative effect on adaptation to military life (Schumm et al., 1996). It appears

from the literature that deployment would directly influence adaptation, but this analysis did not support this finding.

There are three possible reasons that deployment did not appear to influence adaptation in the regression analysis. First, this finding may be attributed to the particular item used to measure deployment, in which the participant indicated the number of days she was deployed during the past year (Q12_2). This measure did not account for the type of deployment or the number of deployments the participant experienced during the past 12 months. Segal (1986) found that the number of extended separations in the Air Force is the lowest among the branches (8% of enlisted, 4% of officers). Since these figures reflect extended separations and are not relevant to short periods of separation caused by temporary duty (TDY) or field training, it may be that many of the participants in this study did not experience extended deployments. Second, it may be that deployment did not influence adaptation for women who were deployed a limited number of days per year or who experienced shorter deployments. Almost 90% of participants were deployed for four months or less, which may help explain the discrepancy between results from this study and results from past studies since earlier works state that extended deployments are the most detrimental to individuals and families (Blaisure & Arnold-Mann, 1992; Knapp & Newman, 1993; Nice, 1983; Wood & Scarville, 1995). A third reason for the disparity may be that women in the military experience deployment different than men do. Since women typically deal with the pile-up of demands at home, they may perceive deployment as an opportunity for a break from their pile-up of demands.

Pile-up of demands. The second model adds the variables of pile-up of demands, including marital pile-up, family pile-up, job pile-up, and financial pile-up. Pile-up of demands provided a statistically significant model of adaptation and explained 12% of the variance in adaptation. This finding concurred with earlier works that found that pile-up demands affect adaptation during deployment (Blount et al., 1992).

Pile-up of demands are important in the model. Studies show that stressors such as these intensify the stress of deployment as well as predict general well-being of the individual (Blount et al., 1992; Jensen et al., 1991; McCubbin & Patterson, 1983a, 1983b, 1983c; Rosen & Moghadam, 1991; Segal, 1986; Wood & Scarville, 1995). This finding corresponds to the literature on military families that states that an accumulation of stressors makes individuals more susceptible to distress during an extended deployment (Lagrone, 1978). The influence of pile-up of demands on adaptation may be explained by evidence that individuals with many pile-up demands generally have lower levels of adaptation, regardless of their deployment status.

Resources. The third model in the regression is the variable of resources, including personal resources, family system resources, and social support resources. The variable of resources is in support of the theoretical model and contributes significantly to understanding adaptation. Together with pile-up of demands, resources explained 24% of the variance in adaptation, adding about 12% to the variance. This variance can be explained in that an individual's use of resources may buffer the effect of their pile-up of demands, whether or not the individual is deployed.

This finding concurs with the literature since an individual's use of resources can lead to a more positive adaptation. In fact, Bell and Schumm (1999) state that families with the most social, financial, and emotional resources tend to adapt most successfully during deployment.

Perception. The fourth model in the regression adds the variables of perception of the stressor event and perception of all to the model. Surprisingly, perception did not contribute to the understanding of adaptation and provided no improvement in variance.

This is perhaps the most incongruent result, as the literature on the effect of deployment on civilian wives and symbolic interactionism theory indicate that an individual's perception plays a large role in adaptation. The Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c) guiding this study placed perception as a prominent variable in which its role is the filter, through which deployment, pile-up, and resources, affects adaptation. In fact, the theory of symbolic interactionsim theory emphasized the meaning the individual creates for the stressor event, the pile-up of stressors, and the resources (LaRossa & Reitzes, 1993). This suggests that the interpretive process determines the meaning the individual gives to the overall crisis of the situation.

So, does this mean that perception does not really matter? Perhaps perception was insignificant in the regression because the measure for perception of all inadequately represented the variable. Since the statistical analysis began with Structural Equation Modeling, which could only include one type of measure for this

85

variable, only the participants' perception of social support resources was used. Unfortunately, this was not a comprehensive measure of perception of all. Ideally, the measure would include the participants' perception of the deployment, of all of their pile-up of demands, and of all of their resources. The data set used had no measure included for adequately gauging the participants' perception of all of the factors. Therefore, it may be that perception does in fact play a large role in adaptation and a more comprehensive measure of perception of all would indicate as such. This finding leads to a couple of questions: How does this finding relate to women compared to men? Do women experience pile-up to such a large degree that perception does not ameliorate the effect of pile-up of stressors and resources on adaptation?

Sample. The literature on military wives and families indicate that pile-up of demands, resources, and perception lead to adaptation. This study, however, did not support the existing literature. This clash in findings may be attributed to several different factors. First, differences between the populations studied may have played a role in the inconsistencies in findings. This study looked at women in the military who were deployed, whereas previous studies examined civilian wives whose husbands were deployed. Similar results were found in a study of fisher families (Zvonkovic, Manoogian, & McGraw, 2001). Zvonkovic and her colleagues (2001) found that men who were absent due to their fishing occupation did not experience the pile-up of demands to nearly the same extent as their wives did at home. In fact, the men in this study seemed to leave the pile-up of demands at home while they were working, and instead their wives dealt with these demands. The second factor of this clash may be

that women's roles in the family differ, so pile-up of demands, resources, and perception would have a greater impact on a civilian wife than on a civilian husband. The third factor in the clash in findings may be that, like the fisher families, civilian spouses deal with the pile-up of stressors (marital, family, job, financial) while the deployed individual leaves these stressors behind.

If this premise were true, then deployment would generally create more stress for the civilian individual who is left at home and who is coping with the pile-up of demands, particularly if family and individuals experience multiple demands and insufficient resources to cope. For example, a deployed military member would not be directly involved with the discipline of her child due to the geographical distance and lack of immediate response to the child's behaviors, whereas a civilian spouse would be available to deal with discipline. The military member may be told of the child's behavior after the issue is dealt with, but this would not create the same demand for the military member as it does for the civilian spouse.

It may be that the pile-up of demands, in combination with inadequate resources to manage them, generally affects the civilian spouse more than it affects the military member. Overall, it can be summed up that a pile-up of demands coupled with available resources accounts for an individual's level of adaptation. The effect of the combination of pile-up of demands and available resources overpowers the roles that perception of the deployment and perception of all play in adaptation.

Limitations

The most significant limitation of this study is the disadvantage of conducting a secondary analysis. As typical in a secondary analysis, measures available are less than ideal for the variables in the model. For instance, the measure for "perception of the stressor" only assessed whether the participant considered the number and length of deployments a concern. An ideal measure would have assessed the participants' perception of the deployment, marital pile-up, family pile-up, job pile-up, financial pile-up, personal resources, family resources, and social support resources, thus providing a more comprehensive evaluation of the participants' definition of their situation. Additionally, the measures for adaptation assessed the participants' ability to manage their work responsibilities and their family responsibilities. An ideal measure would have assessed the participants' well-being in all aspects of their life, such as marital satisfaction, family relationship satisfaction, emotional well-being, etc.

Another limitation in this study related to the parameters of Structural Equation Modeling. Since each variable in the Structural Equation Model could only have one measure (Kline, 1998), scale and index variables were created in order to include the maximum unit of measurement for each variable. Unfortunately, since scale items and index items could not be combined to create a measure, many relevant items were excluded. This restriction resulted in a less comprehensive measure of each variable in the model since it limited the number of items that could be used to measure each variable.

The final limitation is related to the finding that perception was not important in the regression model. It should be noted that the measure for perception of deployment was a stringent test, as the participant would have had to indicate that deployment was among their top five concerns out of a list of 14 other concerns with the option for the participant to specify up to four alternative concerns not listed. The structure of this measure may have resulted in participants indicating concerns that affect their daily lives rather than indicating concern over deployment since deployment may only occur a limited number of times per year.

Additionally, perception of all may have been insignificant in the regression model due to an inadequate measure of the variable. As previously noted in this chapter, the participants' perception of social support resources was used and was not a comprehensive measure of perception of all. Further, the regression shows that in the third model, which adds the resources variables, family resources has the strongest effect on adaptation and social support resources has almost no effect on adaptation. Since the variable of perception of all actually measures the participants' perception of their social support, it is no surprise that perception of all did not have an effect of adaptation. Ideally, the measure would have included the participant's perception of the deployment, of all of their pile-up of demands, and of all of their resources.

Benefits of Study

Inclusion of Military Women

Perhaps the most important attribute of this study is the population that it analyzed: women in the military. Although women are currently a minority in the

military, comprising only a fraction of all members, the Profile of the Military Community 2000 Demographics Report asserts that the number of women as a percent of the total military has continued to increase, with women accounting for 14.9% of the Department of Defense (Military Family Resource Center, 2000). Furthermore, the Air Force maintains the highest percentage of active duty women of all the military branches; their personnel is comprised of 19.1% women (Military Family Resource Center, 2000). Although both genders experience stress associated with deployment, research has shown that, in general, women are significantly more affected by stress, which emphasizes the importance of this study (Wethington, McLeod, & Kessler, 1987).

No longer are scholars and family resource professionals needing to look at information gathered on men or on military spouses in order to make assumptions about the experience of women in the military. This study shows that the pile-up of stressors and resources are crucial for women in the military. This finding emphasizes the importance of taking a proactive approach to making resources available for women in the military so that they can reduce their pile-up of stressors prior to deployment, which may lead to a more positive adaptation during the stressor event of deployment.

Model Improvement

Additionally, this study allowed for improvement and an increase in utility of an existing model. The Double ABCX Model of Stress and Adaptation has been used extensively in research involving family stress (Lavee et al., 2001; McCubbin &

Patterson, 1983a, 1983b, 1983c). However, thus far, this model has been purely theoretical. Accordingly, this study was able to take the first step in using this model empirically. Potentially, further development and perfection of this model may increase its applicability to the wide range of normative and non-normative stressors that individuals and families experience.

Evaluation of Military Families

Although there are several benefits of the application of the Double ABCX Model of Family Stress and Adaptation, perhaps the most useful is for the evaluation of military families, which could aid in early intervention during periods of stress: deployment, relocation, detachment, and wartime situations. Military Family Resource Centers provide an ideal opportunity to use this model to evaluate a family's or individual's potential balance of their stressor and pile-up of demands with their adaptive resources and perceptions, thus providing optimum assistance and intervention. By identifying the critical components of adaptation, resource centers such as these will be able to provide optimum services to families in order to increase positive adaptation. This aspect is especially important since this study indicates that adaptation for women in the military is dependent on their pile-up of stressors and their access to resources. A proactive approach to providing this population with resources prior to deployment may decrease their pile-up of stressors and increase their level of adaptation before deployment, leading to a more positive adaptation during the actual deployment.

91

Future Research

Extended Deployments

One of the limitations of this study is the lack of exclusive focus on extended deployments. Literature has indicated that extended deployments are the most detrimental to military families (Knapp & Newman, 1993; Lagrone, 1978). Therefore, in future studies, it would be beneficial to focus on participants who were deployed for extended periods of time rather than for shorter periods.

Interviews of Military Couples

This study showed that deployment was not a significant factor leading to adaptation in women who were in the military. However, previous literature on civilian wives indicates that these are all factors that lead to adaptation and well-being. So why is there disagreement between studies? A qualitative study should be designed to examine this phenomenon further. Specifically, conducting interviews with couples to determine which spouse endures the most pile-up of stressors and who utilizes the resources would provide a better understanding of this situation. In addition, conducting paired interviews would provide information on the disparity between civilian spouses and military member's perception of the stressor event, pile-up of stressors, and resources. Paired interviews would also provide a comparison of the couples' individual levels of coping and adaptation, thus allowing family and social service practitioners to more effectively provide services to couple and families using a systems approach.

Role of Perception in Adaptation

Family stress research and symbolic interactionism theory indicate that perception is a mediating factor of adaptation. This study did not find perception to be crucial, presumably due to the inability to adequately measurement of variables. Additional research needs to be conducted on the role of perception on adaptation before abandoning the idea that perception affects adaptation. Particularly, a qualitative study would be an ideal beginning in investigating perception's role in adaptation to facilitate a better idea of how one's perception contributes to adaptation.

Other Understudied Populations

There is abundant literature on civilian wives and their adaptation, and although this study was ground-breaking in that it looked at an understudied population, there are other groups that need to be studied further: civilian husbands, men in the military, and dual military couples. Each of these groups may experience deployment differently, and with these current minority groups increasing in the military, it is important to further investigate these populations in order for military family resources centers to provide optimum support to military members and their families.

Model Development

Last, it would be valuable to conduct further empirical development of the Double ABCX Model of Family Stress and Adaptation (McCubbin & Patterson, 1983a, 1983b, 1983c). Although this study attempted this endeavor, the Structural Equation Modeling analysis did not produce a model. Further analysis needs to be

conducted on the proposed path model in this study with more appropriate measures, as it would be useful to have an effective empirical model of stress and adaptation in order to evaluate the adaptation of individuals under different types of stressful situations.

REFERENCES

Amen, D. G., Merves, E., Jellen, L., & Lee, R. E. (1998). Minimizing the impact of deployment separation on military children: Stages, current preventive efforts, and system recommendations. *Military Medicine, 153,* 441-446.

Bell, D. B., & Schumm, W. R. (1999). Family adaptation to deployments. In P. McClure (Ed.), *Pathways to the Future: A Review of Military Family Research* (Ch. 6). Retrieved October 15, 2000, from Military Family Institute Web site: http://mfi.marywood.edu/RESEARCH/COMPENDIUM.htm

Blaisure, K. R., & Arnold-Mann, J. (1992). Return and reunion: A psychoeducational program aboard U.S. Navy ships. *Family Relations, 41,* 178-185.

Blount, B. W., Lubin, G. I., & Curry, A. (1992). Family separations in the military. *Military Medicine, 157,* 76-84.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method.* Elglewood Cliffs: NJ: Prentice-Hall.

Boss, P. (1986). Family stress. In M. B. Sussman, & S. K. Steinmetz (Eds.), *Handbook of marriage and the family* (pp. 695-724). New York: Plenum.

Costello, M., Phelps, L., & Wilczenski, F. (1994). Children and military conflict: Current issues and treatment implications. *The School Counselor, 41,* 220-225.

Crosbie-Burnett, M. (1989). Application of family stress theory to remarriage: A model for assessing and helping stepfamilies. *Family Relations, 38,* 323-331.

Davis-Brown, K., & Salamon, S. (1987). Farm families in crisis: An application of stress theory to farm family research. *Family Relations, 36,* 386-373.

Department of Defense, Defense Technical Information Center. (2003). DOD dictionary of military and associated terms. Retrieved March 27, 2003, from http://www.dtic.mil/doctrine/jel/doddict/

Desivilya, H. S., & Gal, R. (1996). Coping with stress in families of servicemen: Searching for "win-win" solutions to a conflict between the family and the military organization. *Family Process, 35,* 211-225.

Galvin, K. M., & Brommel, B. J. (1991*). Family communication: Cohesion and change (3rd ed.).* New York: HarperCollins.

Green, S. B., Salkind, N. J., & Akey, T. M. (2000). *Using SPSS for Windows: Analyzing and understanding data (2nd ed.).* Upper Saddle River, NJ: Prentice-Hall.

Hess, R. D., & Handel, G. (1994). The family as a psychosocial organization. In G. Handel, & G. G. Whitchurch (Eds.), *The psychosocial interior of the family* (pp. 3-18). New York: Walter de Gruyter.

Hill, R. (1949). *Families under stress: Adjustment to the crises of war separation and reunion.* New York: Harper & Brothers.

Howard, A. (1974). *Ain't no big thing: Coping strategies in a Hawaiian-American community.* Honolulu, HI: University of Hawaii Press.

Ickovics, J. R., & Martin, J. A. (1987). The impact of employment on the psychological well-being of Army wives: A longitudinal survey study. *Military Medicine, 152,* 225-234.

Jensen, P. S., Lewis, R. L., & Xenakis, S. N. (1986). The military family in review: Context, risk, and prevention. *Journal of the American Academy of Child Psychiatry, 25,* 225-234.

Jensen, P. S., Xenakis, S. N., Wolf, P., & Bain, M. W. (1991). The "military family syndrome" revisited: "By the numbers." *The Journal of Nervous and Mental Disease, 179* (2), 102-107.

Kast, F. E., & Rosenzweig, J. E. (1976). The modern view: A systems approach. In J. Beishon, & G. Peters (Eds.), *Systems behaviour,* (pp. 11-14). London: Harper and Row.

Kelley, M. L., Hock, E., Smith, K. M., Jarvis, M. S., Bonney, J. F., & Gaffney, M. (2001). Internalizing and externalizing behavior of children with enlisted navy mothers experiencing military-induced separation. *Journal of the American Academy of Child and Adolescent Psychiatry, 40* (4), 464-471.

Keppel, G., & Zedeck, S. (1989). *Data analysis for research designs: Analysis of variance and multiple regression/correlation approaches.* NY: W. H. Freeman and Company.

Kingsbury, N., & Scanzoni, J. (1993). Structural—Functionalism. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 195-217). New York: Pleunum Press.

Klem, L (1995). Path analysis. In L. G. Grimm, & P. R. Yarnold, (Eds.), *Reading and understanding multivariate statistics* (pp. 65-98). Washington DC: American Psychological Association.

Kline, R. B. (1998). *Principles and practice of structural equation modeling.* NY: The Guilford Press.

Knapp, T. S., & Newman, S. J. (1993). Variables related to the psychological well being of Army wives during the stress of an extended military separation. *Military Medicine, 158,* 77-80.

Kohen, J. A. (1984). The military career is a family affair. *Journal of Family Issues, 5,* 401-418.

Lagrone, D. M. (1978). The military family syndrome. *American Journal of Psychiatry, 135* (9), 1040-1044.

LaRossa, R. & Reitzes, D. C. (1993). Symbolic interactionism and family studies. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 195-217). New York: Pleunum Press.

Lavee, Y., McCubbin, H. I., & Patterson, J. M. (1985). The double ABCX model of family stress and adaptation: An empirical test by analysis of structural equations with latent variables. *Journal of Marriage and the Family, 47* (4), 811-825.

Martin, J. A. (1984). Life satisfaction for military wives. *Military Medicine, 149,* 512-514.

McClure, P. (1999, June). Preface. P. McClure (Ed.), Pathways to the future: A review of military family research. Retrieved November 10, 2000, from http://mfi.marywood.edu/RESEARCH/COMPENDIUM/Intro.htm

McCubbin, H. I., Dahl, B. B., & Hunter, E. J. (1976). Research on the military family: A review. In H. I. McCubbin, B. B. Dahl, & E. J. Hunter (Eds.), *Families in the military system (pp. 291-319).* Beverly Hills, CA: Sage Publications.

McCubbin, H. I., & Patterson, J. M. (1982). Family adaptation to crisis. In H. I. McCubbin, A. Cauble, & J. Patterson (Eds.). *Family stress, coping, and social support* (pp. 26-47). Springfield, IL: Charles C. Thomas.

McCubbin, H. I., & Patterson, J. M. (1983a). Family transitions: Adaptation to stress. In H. I. McCubbin, & C. R. Figley (Eds.), *Stress and the family: Volume I: Coping with normative transitions* (pp. 5-25). New York: Brunner/Mazel.

McCubbin, H. I., & Patterson, J. M. (1983b). The family stress process: The double ABCX model of adjustment and adaptation. In H. I. McCubbin, M. B. Sussman, & J. M. Patterson (Eds.), *Social stress and the family: Advances and developments in family stress theory and research* (pp. 7-38). New York: The Haworth Press.

McCubbin, H. I., & Patterson, J. M. (1983c). Family stress and adaptation to crises: A double ABCX model of family behavior. In D. H. Olson & B. C. Miller (Eds.), *Families studies review yearbook: Vol. 1* (pp. 87-106). Beverly Hills, CA: Sage Publications.

McCubbin, H. I., Sussman, M. B., & Patterson, J. M. (1983). *Social stress and the family: Advances and developments in family stress theory and research.* New York: The Haworth Press.

Military Family Resource Center. (2001). *Profile of the Military Community: 2000 Demographics Report.* Retrieved June 22, 2002 from www.mfrc.calib.com/pubs.htm

Morrison, J. (1981). Rethinking the military family syndrome. *American Journal of Psychiatry, 138* (3), 354-357.

Nice, D. S. (1983). The course of depressive affect in Navy wives during family separation. Military Medicine, 148, 341-343.

Norusis, M. J. (2000). *SPSS 10.0 guide to data analysis.* Upper Saddle River, NJ: Prentice-Hall.

Norwood, A. E., Gabbay, F. H., & Ursano, R. J. (1997). Health effects of the stressors of extreme environments on military women. *Military Medicine, 1962,* 643-648.

Olson, D. H., Sprenkle, D. H., & Russell, C. S. (1979). Circumplex model of marital and family systems: I. Cohesion and adaptability dimensions, family types, and clinical applications. *Family Process, 18,* 3-28.

Pehrson, K. L., & Thornley, N. (1993). Helping the helpers: Family support for social workers mobilized during Desert Storm/Shield. *Military Medicine, 158,* 441-445.

Rosen, L. N., Moghadam, L. Z., & Carpenter, L. J. (1989). Impact of military life stress on the quality of life of military wives. *Military Medicine, 154,* 116-120.

Rosen, L. N., & Moghadam, L. Z. (1991). Predictors of general well being among Army wives. *Military Medicine, 156* (7), 357-361.

Rosen, L. N., Teitelbaum, J. M., & Westhuis, D. J. (1994). Patterns of adaptation among Army wives during operations Desert Shield and Desert Storm. Military Medicine, 159 (1), 43-47.

Schumm, W. R., Knott, B., Bell, D. B., & Rice, R. (1996). The perceived effect of stressors in marital satisfaction among civilian wives of enlisted soldiers deployed to Somalia for Operation Restore Hope. *Military Medicine, 161,* 601-606.

Segal, M. W. (1986). The military and the family as greedy institutions. *Armed Forces and Society, 13,* 9-35.

Segal, D. R., Furukawa, T. P., & Lindh, J. C. (1990). Light infantry as peacekeepers in Sinai. *Armed Forces and Society, 16* (3), 385-403.

Stretch, R. H., Durand, D., & Knudson, K. H. (1998). Effects of premilitary and military trauma on the development of post-traumatic stress disorder symptoms in female and male active duty soldiers. *Military Medicine, 163,* 466-470.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics (3rd ed.).* NY: Harper Collins College Publishers.

Tam, L. W. (1998). Psychological aspects of pregnancy in the military: A review. *Military Medicine, 163,* 408-412.

Voydanoff, P. (1980). Work roles as stressors in corporate families. *Family Relations, 29,* 489-494.

Walker, A. J. (1985). Reconceptualizing family stress. *Journal of Marriage and the Family,* 827-836.

White, J. M., & Klein, D. M. (2992). *Family Theories* (2nd ed). Thousand Oaks, CA: Sage Publications.

Whitchurch, G. G., & Constantine, L. L. (1993). Systems theory. In P. G. Boss, W. J. Doherty, R. LaRossa, W. R. Schumm, & S. K. Steinmetz (Eds.), *Sourcebook of family theories and methods: A contextual approach* (pp. 325-352). New York: Pleunum Press.

Wood, S., & Scarville, J. (1995). Waiting wives: Separation and reunion among Army wives. *Armed Forces and Society, 21* (2), 217-237.

Zeff, K. N., Hirsch, K. A., & Lewis, S. J. (1997). Military family adaptation to United Nations operations in Somalia. *Military Medicine, 162,* 384-387.

Zvonkovic, A. M., Manoogian, M. M., & McGraw, L. A. (2001). The ebb and flow of family life: How families experience being together and apart. In K. Daly (Ed.), *Minding the time in family experience: Emerging perspectives and issues* (pp. 135-160). Amsterdam: JAI Press.

APPENDICES

Appendix A

1999-2000 AIR FORCE

Community Needs Assessment

DIRECTIONS

1. Base your answers on your own feelings and experiences.
2. Read directions carefully, you may not have to answer all questions.
3. Mark only one answer for each question unless instructed otherwise.
4. Please use a blue or black pen to complete this survey.
5. Place an "X" in the appropriate box or boxes.
6. This booklet will be processed by automatic equipment. To avoid errors, please avoid wrinkles, stray marks, and extra folds.
7. Please answer each question carefully.

MARKING INSTRUCTIONS

RIGHT   WRONG

X   ☒ ✓ O

THIS SURVEY SHOULD TAKE ABOUT 30 MINUTES TO COMPLETE.

Your participation in the survey is completely voluntary and none of the information provided will be associated with you individually. Your survey will be treated as confidential and only group statistics will be reported.

1. This questionnaire is exempt from OMB approval required by Paper Work Reduction Act 1980 and subsequent reenactment.

002216

♦

YOUR BACKGROUND

1. In what year were you born?

    19

2. Are you?
    Male
    Female

3. What is your current marital status? (Choose one.)
    Married
    Legally separated or filing for divorce
    Not legally married but living with a significant
    other of the opposite sex
    Not married (Skip to Ques. 5)

4. How many years have you been married to your
   current spouse or living with your significant
   other? If less than 1, enter 00.

    Years

5. How many months have you been living in this
   community?

    Months

6. What is your home zip code?

YOU AND THE MILITARY

7. Are you an active duty military member?
    No
    Yes

8. Is your spouse an active duty military member?
    No
    Yes

FOR QUESTIONS 9-12, PLEASE ANSWER AS FOLLOWS:

MILITARY MEMBERS, ANSWER FOR YOUR MILITARY CAREER

NON-MILITARY SPOUSES, ANSWER FOR YOUR SPOUSE'S MILITARY CAREER

9. What is your or your spouse's pay grade?

E1	E6	O1
E2	E7	O2
E3	E8	O3
E4	E9	O4
E5		O5
		O6

10. At the present time, which statement best describes
    your or your spouse's military career plans?
    To stay in the military until retirement
    To stay in the military beyond present obligation;
    but not necessarily to retirement
    To separate/retire from the military upon
    completion of present obligation - more than 12
    months from now
    To separate/retire from the military within the next
    12 months
    Undecided

11. How many years of military service have you
    or your spouse completed? If less than 1 year,
    enter 00.

    Years

12. For TDYs, deployments or trainings in the past 12
    months, please indicate:

    a. How many total times you have been away:

        Times

    b. How many total days you have been away:

        Days

MILITARY MEMBERS, SKIP TO QUESTION 16.

NON-MILITARY SPOUSES CONTINUE WITH QUESTIONS 13-15.

13. Are you currently seeking paid employment?

No
Yes, part-time work ⎤
Yes, full-time work ⎦ — Go to Ques. 23

14. If you responded "No" to question 13, why are you not seeking employment? (MARK ALL THAT APPLY.)

Already employed
Attending school
Choose to not be employed
No jobs available in area
Jobs in area are low paying
Child care availability/affordability
Spouse deployed/TDY too often
Other (Specify: _____)

15. What type of impact has your spouse's military career had on your career plans?

Very positive
Positive
Negative
Very negative
No impact at all

NON-MILITARY SPOUSES, SKIP TO QUESTION 23.

MILITARY MEMBERS CONTINUE WITH QUESTIONS 16-22.

16. Is your family with you on this assignment?

No, my family is not with me
No, I am single with no dependents
Yes, accompanied by family-command sponsored
Yes, accompanied by family-NOT command sponsored

17. If not accompanied by family, MARK ALL REASONS THAT APPLY:

Spouse currently employed elsewhere
Spouse unable to find employment at this duty station
Don't want to change children's school
Have special needs family member
No housing available
Unaccompanied tour
Filing for divorce/Legally separated
Other (Specify: _____)

I AM ACCOMPANIED BY MY FAMILY

18. In the past six months, to what extent did any of the following job situations impact your ability to meet your family responsibilities?

Does Not Apply
Great Extent
Moderate Extent
Slight Extent
Not At All

a. Unpredictable work schedule..
b. Kept at work beyond normal hours ....
c. Called back for additional detail or shift after you had already left work ....
d. Lack of energy for my family due to fatigue ....
e. Deployment/TDY ....
f. Conflict with co-worker ....
g. Conflict with supervisor.......
h. Spouse's unpredictable work schedule ....
i. Spouse's deployment/TDY/ work travel ....
j. Spouse called back for additional detail or shift after he/she had already left work ..
k. High OPSTEMPO ....
l. Reduced manpower due to deployment.................
m. 12 Hour shifts ....
n. Rotating shifts ....
o. Working after 1800 hours .....
p. Working weekends ....
q. Swing shifts ....
r. Midnight shifts ....

19. In the past six months, to what extent did any of the following job situations impact your ability to perform your military duty the best you can?

Does Not Apply
Great Extent
Moderate Extent
Slight Extent
Not At All

a. Unpredictable work schedule..
b. High OPSTEMPO ....
c. Reduced manpower due to deployment.................
d. 12 Hour shifts ....
e. Rotating shifts ....
f. Working after 1800 hours .....
g. Working weekends ....
h. Swing shifts ....
i. Midnight shifts ....
j. Conflict with supervisor ......
k. Conflict with co-worker ....

- 3 -

20. To what extent do your family responsibilities impact your ability to do your job?

Great extent
Moderate extent
Slight extent
Not at all
Does not apply

21. At the present time, how successful are you at managing your duty and family responsibilities? (MARK ONE NUMBER FROM 1 TO 5 FOR EACH.)

	Not At All Successful	Extremely Successful	Does Not Apply
a. Duty Responsibilities			
b. Family Responsibilities ..			

22. For each personal or family situation below:
FIRST, mark column 1 if you have taken time off from work in the past month because of this situation.

SECOND, if you have taken time off, mark in column 2 whether the time off was scheduled or unscheduled.

2. Time Off Was Unscheduled
Time Off Was Scheduled

1. Time Off From Work

a. Family member's health ....
b. Personal health ....
c. Transportation problem ....
d. Child care arrangements............
e. School-related matters for children ....
f. Dealing with financial concerns ....
g. Preparing for a PCS move ....
h. Settling in after a PCS move ....
i. Preparing for deployment/TDY........
j. Juvenile behavior problems ....
k. Family legal issues ....

INDIVIDUAL/FAMILY ISSUES

23. Answer each item below as it relates to your family. (MARK ONE NUMBER FROM 1 TO 5 FOR EACH.)

a. When we have to get things done that depend on cooperation of all members of the family ...	There is Almost No Chance That Things Will Get Done	Things Will Always Get Done	Does Not Apply

b. When my family faces a tough problem ...	There is No Hope Of Solving The Problem	We Will Solve The Problem	Does Not Apply

24. Please indicate which community you identify with in each of the following situations: Mark "Does Not Apply" only if you do not participate in the activity identified.

Does Not Apply

Civilian Community
Base Community

a. In general, I identify with the ....
b. I attend religious services most frequently in the ....
c. I volunteer most often in the..........
d. Most of my social activities are with people associated with the...........
e. Most of my friends are associated with the ....
f. Non-active duty family members go for medical care in the ....
g. I shop most often in the ....
h. I use support agencies most frequently in the ....

25. Please answer the following questions using the scale below. Base your responses on the community you identify with most closely in item a. of question 24 above.

Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

a. If I had an emergency, even people I do not know in this community would be willing to help ....
b. People here know they can get help from the community if they are in trouble ....
c. People can depend on each other in this community ....
d. My friends in the community are a part of my everyday activities ...
e. Living in this community gives me a secure feeling ....
f. There is a feeling in this community that people should not get too friendly with each other ....
g. This is not a very good community to bring children up in .

- 4 -

26. Regardless of marital status or whether you have children, indicate your level of satisfaction with each of the following. (MARK A RESPONSE FOR EACH ITEM.)

Very Satisfied
Satisfied
Dissatisfied
Very Dissatisfied

How satisfied are you with the:

a. Supportiveness of the community you live in . . . .
b. Supportiveness of the base community. . . . .
c. Support of families by base leadership .
d. Support of families by your unit or your spouse's unit . . . .
e. Support provided to the Active Duty by the unit . . . .
f. Air Force/military as a good place for bringing up children . . . .
g. Air Force/military as a way of life . . . . . .
h. Base programs for children & youth . . . .
i. Base programs for families . . . .
j. Sense of community at this base . . . . . .

27. For the events listed below mark those that have happened in your family in the past 12 months. (MARK ALL THAT APPLY.)

Bankruptcy/major financial hardship
Base closure/base expansion/base downsizing
Birth of a child(ren)/adoption
Child school problems
Death of a family member
Deployment or remote tour
Divorce/separation
Family separation because of military duty
Impending separation from the military
Job loss for spouse
Juvenile behavior problem
Loss of child care arrangements
Marriage
Non selection for promotion
Personal relationship problems
Relocation/PCS
Serious health problems
Taking on responsibility for older family member
Victim of crime
Victim of abuse

28. How often have you experienced conflicts with family members in the past month?

Never
Almost never
Sometimes
Often
Very often

29. How often in the past year have you wondered whether you should continue your relationship?

Often
Sometimes
Rarely
Never

30. How strongly do you agree or disagree with the statement, "Parents who spare the rod will spoil the child"?

Strongly agree
Agree
Disagree
Strongly disagree

31. Below is a list of ways people relieve stress. Mark all of those you have done in the past month to relieve stress. (MARK ALL THAT APPLY.)

Criticize/argue with/threaten others
Deny there is a problem
Eat more than usual
Increase use of alcohol
Increase use of prescription drugs
Increase use of tobacco
Participate in exercise/sports activities
Participate in leisure activities (e.g., read, watch TV, hobbies)
Push/shove/punch/throw something
Sleep more than usual
Spend time alone/pray/meditate
Talk with a counselor
Talk with a friend
Try to see the humorous side of things
Verbally abuse adults
Verbally abuse children
Work more than usual
Withdraw from contact with others

32. In the past 12 months, how many months have you found it difficult to pay your bills? If less than 1 month, enter 00.

Months

33. Who do you turn to for help with a personal problem? A family problem? (MARK ALL THAT APPLY FOR EACH PROBLEM.)

B. Family Problem
A. Personal Problem

a. No one ....
b. Friend ....
c. Co-worker ....
d. Spouse ....
e. Other family member/extended family ....
f. Neighbor ....
g. Unit Commander ....
h. First Sergeant ....
i. Supervisor ....
j. Service provider on base (e.g., Chaplain, Family Support Center, Family Advocacy Program, mental health, etc.) ....
k. Service provider off base (e.g., clergy, school counselor, mental health service, etc.) ....

34. Are you providing any assistance (monetary, emotional, errands, etc.) to an older family member?

Yes, claim older family member as dependent
Yes, but don't claim older family member as dependent
No

35. Do any adults or children living in your home have a physical, mental, emotional or developmental disability or a serious or chronic medical problem (such as asthma or cancer) that requires enrollment in the Exceptional Family Member Program (EFMP)?

YES (*NOT* enrolled in EFMP)
YES (Enrolled in EFMP)
NO

a. Adults ....
b. Children ....

COMMUNITY PROGRAMS/SERVICES

36. For each program or service listed:
FIRST, mark column 1 if you needed the program/service in the past 12 months (leave blank if not needed.)

SECOND, if you used a program/service, mark column 2 to indicate whether it was provided by an on base or off base agency.

2. If You Used A Program/Service Was It: On Base
Off Base

1. Needed This Program/Service During The Past 12 Months

A. COMMUNITY SERVICE NEEDS

1. Directory of community services/programs ....
2. Chapel services ....
3. Community Center ....
4. Housing referral ....
5. Legal services ....
6. Volunteer opportunities ....

B. EDUCATION/EMPLOYMENT NEEDS

1. Adult continuing education ....
2. Family member employment assistance ....

C. FAMILY/CHILDREN'S NEEDS

1. Child care services/referrals .....
2. Couples communication ....
3. Children/youth programs/services .
4. Financial help with child care costs.........................
5. Family life education programs ...
6. Family maltreatment services ....
7. Family recreation activities.......
8. Family violence prevention information ....
9. Homework assistance for child ...
10. Parenting classes ....
11. Personal/family readiness services ....
12. Preteen programs and services....
13. Respite child care ....
14. Single parents programs ....
15. Support for mission related family separation ....
16. Teen programs/services ....
17. Tutoring for child ....

36. (Continued)

2. If You Used A Program/Service Was It: On Base
Off Base

1. Needed This Program/Service
During The Past 12 Months

D. FINANCIAL NEEDS

1. Emergency financial assistance ..
2. Financial help with relocation expenses ....
3. Budget counseling ....
4. Financial education/information...

E. HEALTH AND WELLNESS NEEDS

1. Adult fitness activities ....
2. Anger management ....
3. Casualty assistance ....
4. Health and wellness services ....
5. Mental health services ....
6. Nutrition information ....
7. Prenatal/childbirth/newborn care..
8. Stress management ....
9. Substance abuse services ....
10. Tobacco cessation services ......

F. RELOCATION/TRANSITION NEEDS

1. Moving services/assistance ......
2. Relocation assistance ....
3. Relocation information (culture/ environment issues for members/ families/children) ....
4. Sponsorship assistance ....
5. Retirement employment information/leads ....
6. Retirement/separation workshops/ seminars (job search skills: resume writing, job interviewing, Internet use) ....

G. SPECIAL NEEDS

1. Eldercare services ....
2. Exceptional Family Member (EFMP) services ....

37. How do YOU hear about community programs or services for you or members of your family? (MARK ALL THAT APPLY.)

I never hear anything at all

Base phone book/operator
Bulletin boards on base
Chapel
Child Development Center/Youth Program
Children
Daily/monthly bulletin
E-mail
Family Advocacy Program
Family Support Center
Flyers
Friend or neighbors
Health and Wellness Center
Installation newspaper or newsletter
Local community newspaper
Marquee/electronic bulletin board
Mental Health
Newcomers orientation
Other families
Other unit members or co-workers
Radio
School
Service provider on base
Service's monthly magazine
Spouse
Spouse support groups
Television
Unit or base commander or supervisor
Web site

38. MARK WHETHER YOU AGREE OR DISAGREE WITH THE STATEMENT: Programs or services that support families are important to my commitment to the Air Force.

Strongly agree
Agree
Neither agree nor disagree
Disagree
Strongly disagree

39. How many PCS moves have you made during your or your spouse's Air Force career?

Moves

40. Over all, how stressful was your PCS move to this base?

Very stressful
Moderately stressful
Slightly stressful
Not stressful

- 7 -

41. How supportive do you feel the following groups or programs are in your and your family's daily lives?

No Experience

Very Supportive

Somewhat Supportive

Not At All Supportive

a. Wing leadership ....
b. Group leadership ....
c. Unit leadership ....
d. Supervisor.....................
e. Unit spouses...................
f. Neighbors ....
g. Chapel ....
h. Child Development & Youth
   Programs.....................
i. Family Advocacy Program ....
j. Family Support Center ....
k. Mental Health ....
l. Health and Wellness Center
   (HAWC) ....
m. Civilian community resources ....

42. Mark here if you or your spouse have **NOT** been TDY or deployed in the **past 12 months**. ☒ → Go to Question 44

43. How supportive do you feel the following groups or programs have been for you and your family, at this base, when you or your spouse were deployed or TDY in the **past 12 months**?

N/A

Very Supportive

Somewhat Supportive

Not At All Supportive

a. Wing leadership ....
b. Group leadership ....
c. Unit leadership ....
d. Unit spouses...................
e. Neighbors ....
f. Chapel ....
g. Child Development & Youth
   Programs.....................
h. Family Advocacy Program ....
i. Family Support Center ....
j. Mental Health ....
k. Health and Wellness Center
   (HAWC) ....
l. Civilian community resources ....

44. During times of deployments, separations or unaccompanied tours which of the following types of assistance do you/your family members need? (MARK ALL THAT APPLY.)

   Predeployment support
   Support during separations
   Post deployment assistance
   Help with child care costs
   Family Care Plan help
   Family support groups
   Family reunion training
   Youth supervision
   Morale calls
   Calls from unit to family
   Newsletters
   Financial planning
   Emergency financial assistance
   Workshops about family life/parenting
   E-mail communication
   Spouse employment support
   Respite care
   Car maintenance help

45. Mark the top 5 issues of concern at this base in column 1 and the top 5 issues of concern across the Air Force as a whole in column 2. (Please mark only 5 in each column.)

2. Air Force

1. This Base

a. Housing...................................
b. Safety....................................
c. Spouse employment ....
d. Child care ....
e. Youth services ....
f. Health care ....
g. Recreation services ....
h. Separation from extended family ....
i. OPSTEMPO................................
j. Number of deployment/TDYs ....
k. Length of deployments/TDYs ....
l. Relocation services ....
m. Transition services ....
n. Personal financial indebtedness ....
o. Other (Specify) _____
p. Other (Specify) _____
q. Other (Specify) _____
r. Other (Specify) _____

46. How many MINUTES does it take you to get to base?
   ☐ I live on base

Please mark the approximate number of MINUTES it takes you to get from your residence to base in the boxes:

☐☐☐ Minutes

- 8 -

47. Under normal circumstances, approximately how many HOURS PER WEEK do you work at your primary paying job?

    Hours

48. Do you have a second paying job?
    No
    Yes, 1 - 10 hours a week
    Yes, 11 - 30 hours a week
    Yes, more than 30 hours a week

49. What type of shift do you normally work at your primary paying job?
    8 hour - day shift
    8 hour - mid shift
    8 hour - night shift
    8 hour - rotating shift
    12 hour - day shift
    12 hour - night shift
    12 hour - rotating shift
    Other

50. Do you work a flextime or compressed work schedule (e.g. 4 days/week, day off every other week)?
    No
    Yes

51. If the non-military member is employed, what is her/his annual income?
    Under $10,000
    $10,000 - $20,000
    $20,001 - $30,000
    $30,001 - $40,000
    $40,001 - $50,000
    $50,001 - $60,000
    $60,001 - $70,000
    Above $70,000

    IF YOU HAVE NO CHILDREN UNDER 18
    LIVING WITH YOU, GO TO QUESTION 67.

YOUR CHILDREN

52. How many children currently live with you?

    Children

53. Indicate the ages of the five youngest children residing with you. If under age 1, mark 00.

    First Child
    Second Child
    Third Child
    Fourth Child
    Fifth Child

54. For each item listed:
    FIRST, in column 1 mark each item below that has been a concern for children living with you in the past 12 months.

    SECOND, in column 2, if you sought help, mark whether you got help ON or OFF base.

    2. Help Sought: Off Base
                     On Base

    1. Concern for Children

    a. Abuse by family member or other individual . . . .
    b. Acting out at school/child care . . . .
    c. Adjusting to new schools/child care . . .
    d. Adjusting to step family . . . .
    e. Alcohol use . . . .
    f. Close friend or family member dying . .
    g. Conflict with parents . . . .
    h. Depression . . . .
    i. Divorce or separation of parents . . . . . .
    j. Drug use . . . .
    k. Eating disorders (anorexia, bulimia) . . .
    l. Family separation because of military duty . . . .
    m. Gang involvement . . . .
    n. Gifted child needs. . . . .
    o. Lack of recreational activities . . . .
    p. Lack of sex education . . . .
    q. Lack of youth employment opportunities .
    r. Making new friends . . . .
    s. Parent(s) retiring/separating from the military . . . .
    t. Problems with dating . . . .
    u. Problems with police . . . .
    v. Problems with school work . . . .
    w. Racial or ethnic prejudice . . . .
    x. Separation from extended family (grandparents, aunts, uncles, etc.) . . . .
    y. Smoking . . . .
    z. Suspension/expulsion from school . . . .
    aa. Talk of suicide/suicidal behavior . . . . . .
    bb. Teen pregnancy . . . .

CHILD AND YOUTH PROGRAMS

55. Do you use regularly scheduled child care arrangements during your or your spouse's work day?
    No — Go to Ques. 63   Yes

56. I prefer my child care to be:
    On base
    Off base   No preference

57. I prefer my child care to be:
    Center-based care
    Home-based care   No preference

- 9 -

For your three youngest children, (a) indicate the age of the child, (b) the number of hours per week you use each arrangement for that child, and (c) the cost per week for that child. If your child is under age 1 year, enter age as 0.

TYPE OF ARRANGEMENT	CHILD ONE		CHILD TWO		CHILD THREE	
	a. Age		a. Age		a. Age	
	b. # of hours/week	c. Total cost/week	b. # of hours/week	c. Total cost/week	b. # of hours/week	c. Total cost/week
Other relative/older sibling	hours	$ .00	hours	$ .00	hours	$ .00
Non-relative (e.g., nanny, babysitter, friend, au-pair)	hours	$ .00	hours	$ .00	hours	$ .00
Military child care center/preschool	hours	$ .00	hours	$ .00	hours	$ .00
Civilian child care center/preschool	hours	$ .00	hours	$ .00	hours	$ .00
Military family child care home	hours	$ .00	hours	$ .00	hours	$ .00
Civilian family child care home (licensed)	hours	$ .00	hours	$ .00	hours	$ .00
Civilian family child care home (not licensed)	hours	$ .00	hours	$ .00	hours	$ .00
Military hourly child care service	hours	$ .00	hours	$ .00	hours	$ .00
Civilian hourly child care service	hours	$ .00	hours	$ .00	hours	$ .00
Military before/after school program	hours	$ .00	hours	$ .00	hours	$ .00
Civilian before/after school program	hours	$ .00	hours	$ .00	hours	$ .00
Other (specify) _____	hours	$ .00	hours	$ .00	hours	$ .00

59. Now consider the child care needs of all children living with you. For each type of child care listed, indicate if you <u>needed that type of child care</u> in the past 12 months. (MARK ALL YOU'VE NEEDED.)

- ☒ Part-day child care on base (0 - 5 yrs)
- ☒ Part-day child care off base (0 - 5 yrs)
- ☒ Full-day child care on base (0 - 5 yrs)
- ☒ Full-day child care off base (0 - 5 yrs)
- ☒ Drop-in (hourly) child care on base (0 - 12 yrs)
- ☒ Drop-in (hourly) child care off base (0 - 12 yrs)
- ☒ Overnight care (0 - 18 yrs)
- ☒ Full day summer care (6 - 12 yrs)
- ☒ Sick child care (0 - 12 yrs)
- ☒ Give Parents A Break (0 - 12 yrs)
- ☒ School-age program-on base (6 - 12 yrs)
- ☒ School-age program-off base (6 - 12 yrs)
- Child care for PCS moves
- Family child care for volunteers

60. Consider <u>the child care arrangement that you use most frequently.</u> Indicate your level of satisfaction with each of the following factors by marking the box corresponding to your rating. Mark N/A if not applicable.

Very Satisfied / Satisfied / Neutral / Dissatisfied / Very Dissatisfied — N/A

- a. Cost .... ☒ ☒ ☒ ☒ ☒ ☒
- b. Hours of operation ...... ☒ ☒ ☒ ☒ ☒ ☒
- c. Location .... ☒ ☒ ☒ ☒ ☒ ☒
- d. National accreditation ... ☒ ☒ ☒ ☒ ☒
- e. Number/variety of age appropriate activities .... ☒ ☒ ☒ ☒ ☒ ☒
- f. Provider/staff turnover ... ☒ ☒ ☒ ☒ ☒ ☒
- g. Quality of the building/ facility/space .... ☒ ☒ ☒ ☒ ☒ ☒
- h. Quality of the equipment/ supplies/materials ...... ☒ ☒ ☒ ☒ ☒
- i. Quality of the meals/snacks . ☒ ☒ ☒ ☒ ☒
- j. Safety/health .... ☒ ☒ ☒ ☒ ☒
- k. Staff/child interaction .... ☒ ☒ ☒ ☒ ☒
- l. Staff/child ratio .... ☒ ☒ ☒ ☒ ☒
- m. Staff training .... ☒ ☒ ☒ ☒ ☒
- n. Waiting time to get child into program .... ☒ ☒ ☒ ☒ ☒
- o. Other (Specify) _____ ☒ ☒ ☒ ☒ ☒

61. How many days in the past month have you needed child care more than 10 hours a day to cover work or duty responsibilities?

[ ] Days

62. To what extent do your child care arrangements impact your or your spouse's military readiness?

Great extent
Moderate extent
Slight extent
Not at all

63. IF YOU HAVE NO CHILDREN BETWEEN AGE 6 AND 18, MARK HERE AND GO TO QUES. 67.

64. How satisfied are you with the overall quality of the Youth Program (Youth sports, instructional classes, etc.) at this base, for your child(ren) in each of the following age groups?

C. 15 - 18 yrs.
B. 11 - 14 yrs.
A. 6 - 10 yrs.

Very satisfied .... ⊠ ⊠ ⊠
Satisfied .... ⊠ ⊠ ⊠
Dissatisfied .... ⊠ ⊠ ⊠
Very dissatisfied .... ⊠ ⊠ ⊠
No experience .... ⊠ ⊠ ⊠

65. How often has your child(ren) in each age group participated in youth program activities in the past 12 months?

C. 15 - 18 yrs.
B. 11 - 14 yrs.
A. 6 - 10 yrs.

Nearly every day ....
2 or 3 days a week ....
Once a week ....
1 to 3 times a month ....
For special events only ....
Did not participate in youth programs on base .

66. Below is a list of potential problems with the Youth Program (YP). Mark any concerns you have had with YP at this base, for your child(ren) in the age groups listed. (MARK ALL THAT APPLY.)

C. 15 - 18 yrs.
B. 11 - 14 yrs.
A. 6 - 10 yrs.

a. Children not interested in activities offered .
b. Hours of operation ....
c. Interferes with family time ....
d. Interferes with homework ....
e. Lack of supervision by staff ....
f. Location ....
g. No problems with Youth Program ....
h. Poor facility ....
i. Takes too much parental time & effort .....
j. Too costly ....
k. Too few activities offered ....
l. Unfavorable peer pressure ....
m. Untrained staff ....

- 11 -

113

7. What would you change to make things better for individuals/families living at your base? Use this space to write any comments about programs/services on your base or any needs you have that were not covered in this survey.

– THANK YOU –

PLEASE RETURN THIS QUESTIONNAIRE IMMEDIATELY IN THE ENVELOPE PROVIDED.

Appendix B

2000 Air Force Community Needs Assessment Survey
Code Book
For Installation SPSS and ASCII Data Files

Survey Question Number.. Variable Name & Values

1. In what year were you born? Q1

19 .... __ __

2. Are you: Q2

Male... 1
Female... 2

3. What is your current marital status? (Choose one).......................................Q3

Married 1
Legally separated or filing for divorce... 2
Not legally married but living with a significant other of the opposite sex.......... 3
Not married 4

4. How many years have you been married to your current spouse or living with
your significant other? Q4
      (If less than 1, enter 00.)
      .... __ __

5. How many months have you been living in this community? Q5
      .... __ __ __

6. What is your home zip code? Q6
      .... __ __ __ __ __

7. Are you an active duty military member? Q7

No 1
Yes 2

8. Is your spouse an active duty military member? Q8

No 1
Yes 2

9. What is your or your spouse's pay grade? Q9

E1..............1	E6..............6	O1..............10
E2..............2	E7..............7	O2..............11
E3..............3	E8..............8	O3..............12
E4..............4	E9..............9	O4..............13
E5..............5		O5..............14
		O6..............15

10. At the present time, which statement best describes your or your spouse's military career?..Q10

To stay in the military until retirement...1
To stay in the military beyond present obligation; but not necessarily to retirement..................2
To separate/retire from the military upon completion of present obligation – more than 12
months from now...3
To separate/retire from the military within the next 12 months.......................................4
Undecided...5

11. How many <u>years</u> of military service have you or your spouse completed? Q11
(If less than 1 year, enter 00.)

.... __ __

12. For TDYs, deployments or trainings in the <u>past 12 months</u> please indicate:

How many total times you have been away: ....Q12_1

.... __ __

How many total days you have been away: ....Q12_2

.... __ __ __

13. Are you currently seeking paid employment? Q13

No 1
Yes, part-time work (GO TO Q16)...2
Yes, full-time work   (GO TO Q16)..3

14. If you responded "No" to question 13, why are you not seeking employment?
(Mark All That Apply)

Unmarked 0
Marked 1

Already employed..Q14_1
Attending school ....Q14_2
Choose to not be employed...Q14_3
No jobs available in area...Q14_4
Jobs in area are low paying...Q14_5
Child care availability/affordability...Q14_6
Spouse deployed/TDY too often...Q14_7

Other (Specify: ____Q14_OTH_____)..Q14_8

15. What type of impact has your spouse's military career had on your career plans? Q15

Very positive 1
Positive 2
Negative.. 3
Very negative... 4
No impact at all.. 5

16. Is your family with you on this assignment? Q16

No, my family is not with me.. 1
No, I am single with no dependents.. 2
Yes, accompanied by family-command sponsored.. 3
Yes, accompanied by family-NOT command sponsored 4

17. If not accompanied by family, mark all reasons that apply:
    (Mark All Reasons That Apply)

            Unmarked 0
            Marked 1

Spouse currently employed elsewhere...Q17_1
Spouse unable to find employment at this duty station...Q17_2
Don't want to change children's school...Q17_3
Have special needs family member..Q17_4
No housing available...Q17_5
Unaccompanied tour...Q17_6
Filing for divorce/Legally separated..Q17_7
Other (Specify: __Q17_OTH_____)..Q17_8
I AM ACCOMPANIED BY MY FAMILY ....Q17_9

18. In the past six months, to what extent did any of the following job situations impact your ability to meet your family responsibilities?

        The following are coded:

                Not At All 1
                Slight Extent 2
                Moderate Extent... 3
                Great Extent 4
                Does Not Apply 5

a. Unpredictable work schedule...Q18_1
b. Kept at work beyond normal hours..Q18_2
c. Called back for additional detail or shift after you had already left work....................Q18_3
d. Lack of energy for my family due to fatigue ....Q18_4
e. Deployment/TDY...Q18_5

f. Conflict with co-worker...Q18_6
g. Conflict with supervisor..Q18_7
h. Spouse's unpredictable work schedule..Q18_8
i. Spouse's deployment/TDY/work travel..Q18_9
j. Spouse called back for additional detail or shift after he/she had already left work ....Q18_10
k. High OPSTEMPO..Q18_11
l. Reduced manpower due to deployment...Q18_12
m. 12 Hour shifts ....Q18_13
n. Rotating shifts..Q18_14
o. Working after 1800 hours ....Q18_15
p. Working weekends..Q18_16
q. Swing shifts...Q18_17
r. Midnight shifts...Q18_18

19. In the past six months, to what extent did any of the following job situations impact your ability to perform your military duty the best you can?

The following are coded:

Not At All 1
Slight Extent 2
Moderate Extent..3
Great Extent..4
Does Not Apply 5

a. Unpredictable work schedule...Q19_1
b. High OPSTEMPO..Q19_2
c. Reduced manpower due to deployment..Q19_3
d. 12 Hour shifts..Q19_4
e. Rotating shifts ....Q19_5
f. Working after 1800 hours..Q19_6
g. Working weekends..Q19_7
h. Swing shifts...Q19_8
i. Midnight shifts...Q19_9
j. Conflict with supervisor...Q19_10
k. Conflict with co-worker..Q19_11

20. To what extent do your family responsibilities impact your ability to do your job? Q20

Great extent..1
Moderate extent 2
Slight extent 3
Not at all 4
Does not apply 5

21. At the present time, how successful are you at managing your duty and family responsibilities?

On a 5-point scale:

Not At All Successful 1
.... 2
.... 3
.... 4
Extremely Successful 5
Does Not Apply 6

a. Duty Responsibilities ....Q21_1
b. Family Responsibilities...Q21_2

22. For each personal or family situation below:

FIRST, Have you taken time off from work in the <u>past month</u> because of this situation?

Unmarked 0
Marked 1

a. Family member's health...Q22A_1
b. Personal health..Q22A_2
c. Transportation problem...Q22A_3
d. Child care arrangements ....Q22A_4
e. School-related matters for children................................Q22A_5
f. Dealing with financial concerns....................................Q22A_6
g. Preparing for a PCS move...Q22A_7
h. Settling in after a PCS move..Q22A_8
i. Preparing for deployment/TDY ....Q22A_9
j. Juvenile behavior problems ....Q22A_10
k. Family legal issues..Q22A_11

SECOND, If you have taken time off, mark whether the time off was scheduled or unscheduled.

Time Off Was Scheduled 1
Time Off Was Unscheduled 2

a. Family member's health...Q22B_1
b. Personal health..Q22B_2
c. Transportation problem...Q22B_3
d. Child care arrangements ....Q22B_4
e. School-related matters for children................................Q22B_5
f. Dealing with financial concerns....................................Q22B_6
g. Preparing for a PCS move...Q22B_7
h. Settling in after a PCS move..Q22B_8
i. Preparing for deployment/TDY ....Q22B_9

j. Juvenile behavior problems .... Q22B_10
k. Family legal issues .... Q22B_11

23. **Answer each item below as it relates to your family.**

On a 5-point scale:

> There is Almost No Chance That Things Will Get Done 1
> 2
> 3
> 4
> Things Will Always Get Done 5
> Does Not Apply 6

a. **When we have to get things done that depend on cooperation of all members of the family** .... Q23_1

On a 5-point scale:

> There is No Hope of Solving The Problem 1
> 2
> 3
> 4
> We Will Solve The Problem 5
> Does Not Apply 6

b. **When my family faces a tough problem** .... Q23_2

23. **Please indicate which community you identify with in each of the following situations:**

> Base Community 1
> Civilian Community 2
> Does Not Apply 3

a. In general, I identify with the .... Q24_1
b. I attend religious services most frequently in the .... Q24_2
c. I volunteer most often in .... Q24_3
d. Most of my social activities are with people associated with .... Q24_4
e. Most of my friends are associated with the .... Q24_5
f. Non active duty family members go for medical care in the .... Q24_6
g. I shop most often in the .... Q24_7
h. I use support agencies most frequently in .... Q24_8

25. **Please answer the following questions using the scale below. Base your responses on the community you identify with most closely in item a. of question of 24 above.**

> Strongly Disagree 1
> Disagree 2

Neutral 3
Agree... 4
Strongly Agree.. 5

a. If I had an emergency, even people I do not know in this community would be
willing to help ....25_1
b. People here know they can get help from the community if they are in trouble ....25_2
c. People can depend on each other in this community..25_3
d. My friends in the community are a part of my everyday activities......................................25_4
e. Living in this community gives me a secure feeling...25_5
f. There is a feeling in this community that people should not get too friendly with each other25_6
g. This is not a very good community to bring children up in...25_7

26. Regardless of marital status or whether you have children, indicate your level of
satisfaction with each of the following.

Very Dissatisfied..1
Dissatisfied...2
Satisfied 3
Very Satisfied 4

How satisfied are you with the:

a. Supportiveness of the community you live in ....26_1 ✓
b. Supportiveness of the base community ....26_2 ✓
c. Support of families by base leadership ....26_3
d. Support of families by your unit or your spouse's unit ....26_4
e. Support provided to the Active Duty by the unit ....26_5
f. Air Force/military as a good place for bringing up children ....26_6
g. Air Force/military as a way of life ....26_7 ✓
h. Base programs for children & youth ....26_8
i. Base programs for families ....26_9
j. Sense of community at this base ....26_10 ✓

27. For the events listed below mark those that have happened in your family in the past 12
months. (Mark All That Apply)

Unmarked 0
Marked 1

Bankruptcy/major financial hardship..Q27_1
Base closure/base expansion/base downsizing.......................................Q27_2
Birth of a child(ren)/adoption ....Q27_3
Child school problems ....Q27_4
Death of a family member ....Q27_5
Deployment or remote tour...Q27_6
Divorce/separation...Q27_7
Family separation because of military duty..Q27_8

Impending separation from the military..Q27_9
Job loss for spouse ....Q27_10
Juvenile behavior problem..Q27_11
Loss of child care arrangements ....Q27_12
Marriage...Q27_13
Non selection for promotion...Q27_14
Personal relationship problems...Q27_15
Relocation/PCS...Q27_16
Serious health problems...Q27_17
Taking on responsibility for older family member...Q27_18
Victim of crime..Q27_19
Victim of abuse..Q27_20

28. How often have you experienced conflicts with family members in the past month? Q28

Never...1
Almost never...2
Sometimes..3
Often 4
Very often 5

29. How often in the past year have you wondered whether you should continue your relationship? Q29

Often 1
Sometimes..2
Rarely...3
Never..4

30. How strongly do you agree or disagree with the statement, "Parents who spare the rod will spoil the child?" Q30

Strongly agree..1
Agree..2
Disagree..3
Strongly disagree 4

31. Below is a list of ways people relieve stress. Mark all of those you have done in the past month to relieve stress.
(MARK ALL THAT APPLY.)

Unmarked 0
Marked 1

Criticize/argue with/threaten others ....Q31_1
Deny there is a problem ....Q31_2

Eat more than usual .... Q31_3
Increase use of alcohol .... Q31_4
Increase use of prescription drugs .... Q31_5
Increase use of tobacco .... Q31_6
Participate in exercise/sports activities .... Q31_7
Participate in leisure activities (e.g., read, watch TV, hobbies) .... Q31_8
Push/shove/punch/throw something .... Q31_9
Sleep more than usual .... Q31_10
Spend time alone/pray/meditate .... Q31_11
Talk with a counselor .... Q31_12
Talk with a friend .... Q31_13
Try to see the humorous side of things .... Q31_14
Verbally abuse adults .... Q31_15
Verbally abuse children .... Q31_16
Work more than usual .... Q31_17
Withdraw from contact with others .... Q31_18

32. In the past 12 months, how many months have you found it difficult to pay your bills?
If less than 1, enter 00. .... Q32
.... __ __

33. Who do you turn to for help with a personal problem? A family problem?
(MARK ALL THAT APPLY FOR EACH PROBLEM)

Unmarked 0
Marked.. 1

A. Personal Problem

a. No one.. Q33A_1
b. Friend.. Q33A_2
c. Co-worker .... Q33A_3
d. Spouse.. Q33A_4
e. Other family member/extended family .... Q33A_5
f. Neighbor .... Q33A_6
g. Unit Commander .... Q33A_7
h. First Sergeant .... Q33A_8
i. Supervisor .... Q33A_9
j. Service provider on base (e.g., Chaplain, Family Support Center,
Family Advocacy, etc.) .... Q33A_10
k. Service provider off base (e.g., clergy, school counselor, mental
health services, etc.) .... Q33A_11

B. Family Problem

a. No one.. Q33B_1
b. Friend.. Q33B_2
c. Co-worker .... Q33B_3
d. Spouse.. Q33B_4

e. Other family member/extended family .... Q33B_5
f. Neighbor .... Q33B_6
g. Unit Commander .... Q33B_7
h. First Sergeant .... Q33B_8
i. Supervisor .... Q33B_9
j. Service provider on base (e.g., Chaplain, Family Support Center,
Family Advocacy, etc.) .... Q33B_10
k. Service provider off base (e.g., clergy, school counselor, mental
health services, etc.) .... Q33B_11

**34. Are you providing any assistance (monetary, emotional, errands, etc.) to an
older family member?** Q34

Yes, claim older family member as dependent 1
Yes, but don't claim older family member as dependent 2
No.. 3

**35. Do any adults or children living in your home have a physical, mental, emotional or
developmental disability or a serious or chronic medical problem (such as asthma or
cancer)?**

No 1
Yes (Enrolled in EFMP) 2
Yes (NOT Enrolled in EFMP)... 3

Adults .... Q35_1
Children .... Q35_2

36. For each program or service listed:

—FIRST, mark column 1 if you needed the program/service in the <u>past 12 months</u>
(leave blank if not needed)

Unmarked 0
Marked 1

A. COMMUNITY SERVICE NEEDS
1. Directory of community services/programs .... Q36A_1
2. Chapel services .... Q36A_2
3. Community Center .... Q36A_3
4. Housing referral .... Q36A_4
5. Legal services .... Q36A_5
6. Volunteer opportunities .... Q36A_6

B. EDUCATION/EMPLOYMENT NEEDS
2. Adult continuing education.. Q36A_7
2. Family member employment assistance... Q36A_8

C. FAMILY/CHILDREN'S NEEDS

1. Child care services/referrals .... Q36A_9
2. Couples communication .... Q36A_10
3. Children/youth programs/services .... Q36A_11
4. Financial help with child care costs .... Q36A_12
5. Family life education programs .... Q36A_13
6. Family maltreatment services .... Q36A_14
7. Family recreation activities .... Q36A_15
8. Family violence prevention information .... Q36A_16
9. Homework assistance for child .... Q36A_17
10. Parenting classes .... Q36A_18
11. Personal/family readiness services .... Q36A_19
12. Preteen programs and services .... Q36A_20
13. Respite childcare .... Q36A_21
14. Single parents programs .... Q36A_22
15. Support for mission related family separation .... Q36A_23
16. Teen programs/services .... Q36A_24
17. Tutoring for child .... Q36A_25

D. FINANCIAL NEEDS
1. Emergency financial assistance .... Q36A_26
2. Financial help with relocation expenses .... Q36A_27
3. Budget counseling .... Q36A_28
4. Financial education/information .... Q36A_29

E. HEALTH AND WELLNESS NEEDS
1. Adult fitness activities .... Q36A_30
2. Anger management .... Q36A_31
3. Casualty assistance .... Q36A_32
4. Health and wellness services .... Q36A_33
5. Mental health services .... Q36A_34
6. Nutrition information .... Q36A_35
7. Prenatal/childbirth/newborn care .... Q36A_36
8. Stress management .... Q36A_37
9. Substance abuse services .... Q36A_38
10. Tobacco cessation services .... Q36A_39

F. RELOCATION/TRANSITION NEEDS
1. Moving services/assistance .... Q36A_40
2. Relocation assistance .... Q36A_41
3. Relocation information (culture/environmental issues for
   members/families/children) .... Q36A_42
4. Sponsorship assistance .... Q36A_43
5. Retirement employment information/leads .... Q36A_44
6. Retirement/separation workshops/seminars (job search skills: resume writing,
   job interviewing, Internet use) .... Q36A_45

G. SPECIAL NEEDS
1. Eldercare services .... Q36A_46
2. Exceptional Family Member (EFMP) services .... Q36A_47

--SECOND, mark to indicate whether the program/service used, was provided by an on base or off base agency.

Off Base 1
On Base 2

A. COMMUNITY SERVICE NEEDS
1. Directory of community services/programs .... Q36B_1
2. Chapel services .... Q36B_2
3. Community Center .... Q36B_3
4. Housing referral .... Q36B_4
5. Legal services .... Q36B_5
6. Volunteer opportunities .... Q36B_6

B. EDUCATION/EMPLOYMENT NEEDS
1. Adult continuing education... Q36B_7
2. Family member employment assistance.. Q36B_8

C. FAMILY/CHILDREN'S NEEDS
1. Child care services/referrals.. Q36B_9
2. Couples communication... Q36B_10
3. Children/youth programs/services .... Q36B_11
4. Financial help with child care costs.. Q36B_12
5. Family life education programs .... Q36B_13
6. Family maltreatment services.. Q36B_14
7. Family recreation activities... Q36B_15
8. Family violence prevention information... Q36B_16
9. Homework assistance for child .... Q36B_17
10. Parenting classes.. Q36B_18
11. Personal/family readiness services... Q36B_19
12. Preteen programs and services... Q36B_20
13. Respite childcare.. Q36B_21
14. Single parents programs... Q36B_22
15. Support for mission related family separation... Q36B_23
16. Teen programs/services.. Q36B_24
17. Tutoring for child... Q36B_25

D. FINANCIAL NEEDS
1. Emergency financial assistance... Q36B_26
2. Financial help with relocation expenses .... Q36B_27
3. Budget counseling... Q36B_28
4. Financial education/information .... Q36B_29

E. HEALTH AND WELLNESS NEEDS
1. Adult fitness activities.. Q36B_30
2. Anger management.. Q36B_31
3. Casualty assistance... Q36B_32
4. Health and wellness services.. Q36B_33
5. Mental health services.. Q36B_34
6. Nutrition information.. Q36B_35
7. Prenatal/childbirth/newborn care.. Q36B_36

8. Stress management.. Q36B_37
9. Substance abuse services .... Q36B_38
10. Tobacco cessation services .... Q36B_39

F. RELOCATION/TRANSITION NEEDS
1. Moving services/assistance.. Q36B_40
2. Relocation assistance .... Q36B_41
3. Relocation information (culture/environmental issues for
   members/families/children) .... Q36B_42
4. Sponsorship assistance.. Q36B_43
5. Retirement employment information/leads.. Q36B_44
6. Retirement/separation workshops/seminars (job search skills: resume writing,
   job interviewing, Internet use)... Q36B_45

G. SPECIAL NEEDS
1. Eldercare services .... Q36B_46
2. Exceptional Family Member (EFMP) services) .... Q36B_47

37. How do YOU hear about community programs or services for you or members of your family? (MARK ALL THAT APPLY.)

```
        Unmarked ................................................................................0
        Marked....................................................................................1
```

I never hear anything at all .... Q37_1
Base phone book/operator .... Q37_2
Bulletin boards on base .... Q37_3
Chapel .... Q37_4
Child Development Center/Youth Program .... Q37_5
Children .... Q37_6
Daily/monthly bulletin .... Q37_7
E-mail .... Q37_8
Family Advocacy Program .... Q37_9
Family Support Center .... Q37_10
Flyers .... Q37_11
Friend or neighbors .... Q37_12
Health and Wellness Center .... Q37_13
Installation newspaper or newsletter .... Q37_14
Local community newspaper .... Q37_15
Marquee/electronic bulletin board .... Q37_16
Mental Health .... Q37_17
Newcomers orientation .... Q37_18
Other families .... Q37_19
Other unit members or co-workers .... Q37_20
Radio .... Q37_21
School .... Q37_22
Service provider on base .... Q37_23
Service's monthly magazine .... Q37_24
Spouse .... Q37_25
Spouse support groups .... Q37_26

Television .... Q37_27
Unit or base command or supervisor .... Q37_28
Web site .... Q37_29

38. MARK WHETHER YOU AGREE OR DISAGREE WITH THE STATEMENT:
Programs or services that support families are important to my commitment to the
Air Force Q38

Strongly agree 1
Agree.. 2
Neither agree nor disagree 3
Disagree 4
Strongly disagree 5

38. How many PCS moves have you made during your or your spouse's Air Force
career? Q39
     If less than 1, enter 00.

     .... __ __

40. Over all, how stressful was your PCS move to this base? Q40

Very stressful 1
Moderately stressful 2
Slightly stressful 3
Not stressful 4

41. How supportive do you feel the following groups or programs are in your and your
family's daily lives?

          Not At All Supportive... 1
          Somewhat Supportive.. 2
          Very Supportive... 3
          No Experience... 4

a. Wing leadership .... Q41_1
b. Group leadership .... Q41_2
c. Unit leadership .... Q41_3
d. Supervisor .... Q41_4
e. Unit spouses .... Q41_5
f. Neighbors .... Q41_6
g. Chapel .... Q41_7
h. Child Development & Youth Programs .... Q41_8
i. Family Advocacy Program .... Q41_9
j. Family Support Center .... Q41_10
k. Mental Health .... Q41_11
l. Health and Wellness Center (HAWC) .... Q41_12
m. Civilian community resources .... Q41_13

42. Mark here if you have <u>NOT</u> been TDY or deployed in the <u>past 12 months</u> Q42
      If Marked, GO TO Q44

          Unmarked 0
          Marked.. 1

43. How supportive do you feel the following groups or programs have been for you and your family, at this base, when you or your spouse was deployed or TDY in the past 12 months?

          Not At All Supportive... 1
          Somewhat Supportive... 2
          Very Supportive... 3
          No Experience.. 4

a. Wing leadership ....Q43_1
b. Group leadership ....Q43_2
c. Unit leadership ....Q43_3
d. Unit spouses ....Q43_4
e. Neighbors ....Q43_5
f. Chapel..Q43_6
g. Child Development & Youth Programs ....Q43_7
h. Family Advocacy Program ....Q43_8
i. Family Support Center ....Q43_9
j. Mental Health ....Q43_10
k. Health and Wellness Center (HAWC) ....Q43_11
l. Civilian community resources ....Q43_12

44. During times of deployments, separations or unaccompanied tours which of the following types of assistance do you/your family members need? (MARK ALL THAT APPLY.)

          Unmarked 0
          Marked.. 1

Predeployment support ....Q44_1
Support during separations ....Q44_2
Post deployment assistance ....Q44_3
Help with child care costs ....Q44_4
Family Care Plan help ....Q44_5
Family support groups ....Q44_6
Family reunion training ....Q44_7
Youth supervision ....Q44_8
Morale calls ....Q44_9
Calls from unit to family ....Q44_10
Newsletters ....Q44_11
Financial planning ....Q44_12
Emergency financial assistance ....Q44_13
Workshops about family life/parenting..Q44_14
E-mail communication ....Q44_15

Spouse employment support ....Q44_16
Respite care ....Q44_17
Car maintenance help ....Q44_18

45. Mark the top 5 issues of concern at this base in column 1 and the top 5 issues of concern across the Air Force as a whole in column 2.
(Please mark only 5 in each column.)

Unmarked 0
Marked 1

1. THIS BASE
a. Housing ....Q45A_1
b. Safety ....Q45A_2
c. Spouse employment ....Q45A_3
d. Child care ....Q45A_4
e. Youth services ....Q45A_5
f. Health care ....Q45A_6
g. Recreation services ....Q45A_7
h. Separation from extended family ....Q45A_8
i. OPSTEMPO ....Q45A_9
j. Number of deployment/TDYs ....Q45A_10
k. Length of deployments/TDYs ....Q45A_11
l. Relocation services ....Q45A_12
m. Transition services ....Q45A_13
n. Personal financial indebtedness ....Q45A_14
o. Other (Specify)_____Q45O_OTH ....Q45A_15
p. Other (Specify)_____Q45P_OTH ....Q45A_16
q. Other (Specify)_____Q45Q_OTH ....Q45A_17
r. Other (Specify)_____Q45R_OTH ....Q45A_18

2. AIR FORCE
a. Housing ....Q45B_1
b. Safety ....Q45B_2
c. Spouse employment ....Q45B_3
d. Child care ....Q45B_4
e. Youth services ....Q45B_5
f. Health care ....Q45B_6
g. Recreation services ....Q45B_7
h. Separation from extended family ....Q45B_8
i. OPSTEMPO ....Q45B_9
j. Number of deployment/TDYs ....Q45B_10
k. Length of deployments/TDYs ....Q45B_11
l. Relocation services ....Q45B_12
m. Transition services ....Q45B_13
n. Personal financial indebtedness ....Q45B_14
o. Other (Specify)_____Q45O_OTH ....Q45B_15
p. Other (Specify)_____Q45P_OTH ....Q45B_16
q. Other (Specify)_____Q45Q_OTH ....Q45B_17
r. Other (Specify)_____Q45R_OTH ....Q45B_18

46. How many MINUTES does it take you to get to base?

Unmarked 0
Marked 1

I live on base .... Q46_1

If Q46_1 is unmarked: Approximate number of minutes from residence to base: ...... Q46_2
.... __ __

47. Under normal circumstances, approximately how many HOURS PER WEEK do you work at your primary paying job? Q47
.... __ __

48. Do you have a second paying job? Q48

No.. 1
Yes, 1 – 10 hours a week 2
Yes, 11 - 30 hours a week 3
Yes, more than 30 hours a week 4

49. What type of shift do you normally work at your primary paying job? Q49

8 hour – day shift 1
8 hour – mid shift 2
8 hour – night shift 3
8 hour – rotating shift 4
12 hour – day shift 5
12 hour – night shift 6
12 hour – rotating shift 7
Other 8

50. Do you work a flextime or compressed work schedule (e.g. 4 days/week, day off every other week)? Q50

No 1
Yes 2

51. If the non-military member is employed, what is her/his annual income?.................. Q51

Under $10,000 1
$10,000 - $20,000 2
$20,001 - $30,000 3
$30,001 - $40,000 4
$40,001 - $50,000 5

$50,001 - $60,000 6
$60,001 - $70,000 7
Above $70,000 8

52. How many children currently live with you? Q52
(IF NO CHILDREN GO TO Q67.)

.... __ __

53. Indicate the ages of the five youngest children residing with you.
        If under age 1, mark 00.

First child .... Q53_1

.... __ __

Second child .... Q53_2

.... __ __

Third child .... Q53_3

.... __ __

Fourth child .... Q53_4

.... __ __

Fifth child.. Q53_5

.... __ __

54. For each item listed:

    --FIRST, mark each item below that has been a concern for children living
        with you in the past 12 months.

                Unmarked 0
                Marked.. 1

1. Concern for Children:
a. Abuse by family member or other individual .... Q54A_1
b. Acting out at school/child care .... Q54A_2
c. Adjusting to new schools/child care.. Q54A_3
d. Adjusting to step family.. Q54A_4
e. Alcohol use .... Q54A_5
f. Close friend or family member dying... Q54A_6
g. Conflict with parents... Q54A_7
h. Depression. .... Q54A_8
i. Divorce or separation of parents.. Q54A_9
j. Drug use.. Q54A_10
k. Eating disorders (anorexia, bulimia).. Q54A_11
l. Family separation because of military duty.. Q54A_12
m. Gang involvement... Q54A_13
n. Gifted child needs .... Q54A_14
o. Lack of recreational activities.. Q54A_15

p. Lack of sex education ....Q54A_16
q. Lack of youth employment opportunities..Q54A_17
r. Making new friends..Q54A_18
s. Parent(s) retiring/separating from the military...Q54A_19
t. Problems with dating..Q54A_20
u. Problems with police..Q54A_21
v. Problems with school work...Q54A_22
w. Racial or ethnic prejudice ....Q54A_23
x. Separation from extended family (grandparents, aunt, uncles, etc.).......................Q54A_24
y. Smoking..Q54A_25
z. Suspension/expulsion from school..Q54A_26
aa. Talk of suicide/suicidal behavior..Q54A_27
bb. Teen pregnancy...Q54A_28

--SECOND, if you sought help, mark whether you got help ON or OFF base

On Base...1
Off Base...2

2. Help Sought: On Base or Off Base
a. Abuse by family member or other individual...Q54B_1
b. Acting out at school/child care...Q54B_2
c. Adjusting to new schools/child care..Q54B_3
d. Adjusting to step-family...Q54B_4
e. Alcohol use ....Q54B_5
f. Close friend or family member dying..Q54B_6
g. Conflict with parents..Q54B_7
h. Depression. ....Q54B_8
i. Divorce or separation of parents...Q54B_9
j. Drug use..Q54B_10
k. Eating disorders (anorexia, bulimia)...Q54B_11
l. Family separation because of military duty..Q54B_12
m. Gang involvement..Q54B_13
n. Gifted child needs...Q54B_14
o. Lack of recreational activities...Q54B_15
p. Lack of sex education ....Q54B_16
q. Lack of youth employment opportunities..Q54B_17
r. Making new friends...Q54B_18
s. Parent(s) retiring/separating from the military..Q54B_19
t. Problems with dating...Q54B_20
u. Problems with police...Q54B_21
v. Problems with school work...Q54B_22
w. Racial or ethnic prejudice ....Q54B_23
x. Separation from extended family (grandparents, aunt, uncles, etc.).......................Q54B_24
y. Smoking..Q54B_25
z. Suspension/expulsion from school..Q54B_26
aa. Talk of suicide/suicidal behavior..Q54B_27
bb. Teen pregnancy...Q54B_28

55. Do you use regularly scheduled child care arrangements during your or your spouse's work day? Q55
      (IF NO, GO TO Q63.)

No.. 1
Yes 2

56. I prefer my child care to be:...Q56

On base 1
Off base 2
No preference 3

57. I prefer my child care to be...Q57

Center-based care.. 1
Home-base care...2
No preference...3

Child Care: By Type of Arrangement Q58

	Age of Child 1 Q58A1		Age of Child 2 Q58A2		Age of Child 3 Q58A3	
	Hours/week	Cost	Hours/week	Cost	Hours/week	Cost
Other relative/older sibling	Q58B1_1	Q58C1_1	Q58B2_1	Q58C2_1	Q58B3_1	Q58C3_1
Non-relative (e.g., nanny, etc.)	Q58B1_2	Q58C1_2	Q58B2_2	Q58C2_2	Q58B3_2	Q58C3_2
Military child care center/preschool	Q58B1_3	Q58C1_3	Q58B2_3	Q58C2_3	Q58B3_3	Q58C3_3
Civilian child care center/preschool	Q58B1_4	Q58C1_4	Q58B2_4	Q58C2_4	Q58B3_4	Q58C3_4
Military family child care home	Q58B1_5	Q58C1_5	Q58B2_5	Q58C2_5	Q58B3_5	Q58C3_5
Civilian family child care home-licensed	Q58B1_6	Q58C1_6	Q58B2_6	Q58C2_6	Q58B3_6	Q58C3_6
Civilian family child care home-not licensed	Q58B1_7	Q58C1_7	Q58B2_7	Q58C2_7	Q58B3_7	Q58C3_7
Military hourly child care service	Q58B1_8	Q58C1_8	Q58B2_8	Q58C2_8	Q58B3_8	Q58C3_8
Civilian hourly child care service	Q58B1_9	Q58C1_9	Q58B2_9	Q58C2_9	Q58B3_9	Q58C3_9
Military before/after school program	Q58B1_10	Q58C1_10	Q58B2_10	Q58C2_10	Q58B3_10	Q58C3_10
Civilian before/after school program	Q58B1_11	Q58C1_11	Q58B2_11	Q58C2_11	Q58B3_11	Q58C3_11
Other (specify) Q58_OTH	Q58B1_12	Q58C1_12	Q58B2_12	Q58C2_12	Q58B3_12	Q58C3_12

59. Now consider the childcare needs of all children living with you. For each type of child care listed, indicate if you <u>needed that type of childcare in the past 12 months</u> (leave blank if not needed)
(MARK ALL THAT APPLY.)

Unmarked 0
Marked 1

Type of Child Care
Part-day child care on base (0 – 5 yrs)... Q59_1
Part-day child care off base (0 – 5 yrs)... Q59_2
Full-day child care on base (0 – 5 yrs).. Q59_3
Full-day child care off base (0 – 5 yrs).. Q59_4
Drop-in (hourly) child care on base (0 – 12 yrs)... Q59_5
Drop-in (hourly) child care off base (0 – 12 yrs)... Q59_6
Overnight care (0 – 18 yrs).. Q59_7
Full day summer care (6 – 12 yrs) .... Q59_8
Sick child care (0 – 12 yrs)... Q59_9
Give Parents A Break (0 – 12 yrs).. Q59_10
School-age program-on base (6 – 12 yrs)... Q59_11
School-age program- off base (6 – 12 yrs) .... Q59_12
Child care for PCS moves... Q59_13
Family child care for volunteers... Q59_14

60. Consider <u>the child care arrangement that you use most frequently</u>. Indicate your level of satisfaction with each of the following factors by marking the box corresponding to your rating. Mark N/A if not applicable.

Very Dissatisfied... 1
Dissatisfied.. 2
Neutral 3
Satisfied 4
Very Satisfied 5
Not Applicable.. 6

a. Cost .... Q60_1
b. Hours of operation .... Q60_2
c. Location .... Q60_3
d. National accreditation.. Q60_4
e. Number/variety of age-appropriate activities.. Q60_5
f. Provider/staff turnover... Q60_6
g. Quality of the building/facility/space... Q60_7
h. Quality of the equipment/supplies/materials.. Q60_8
i. Quality of the meals/snacks.. Q60_9
j. Safety/health .... Q60_10
k. Staff/child interaction... Q60_11
l. Staff/child ratio.. Q60_12
m. Staff training.. Q60_13

n. Waiting time to get child into program...Q60_14
o. Other (Specify   Q60_OTH   )...Q60_15

61. How many days in the past month have you needed child care more than 10 hours a day to cover work or duty responsibilities?...Q61

....___ ___

61. To what extent do your child care arrangements impact your or your spouse's military readiness?...Q62

Great extent...1
Moderate extent...2
Slight extent...3
Not at all...4

62. IF YOU HAVE NO CHILDREN BETWEEN AGE 6 AND 18, MARK HERE AND GO TO Q67. ....Q63

Unmarked...0
Marked...1

64. How satisfied are with the overall quality of the Youth Program (Youth sports, instructional classes, etc.) at this base, for your child(ren) in each of the following age groups?

Very Satisfied...1
Satisfied...2
Dissatisfied...3
Very dissatisfied...4
No experience...5

For the following age groups:
A. 6-10 years...Q64_1
B. 11-14 years...Q64_2
C. 15-18 years...Q64_3

65. How often has your child(ren) in each age group participated in youth program activities in the last 12 months?

Nearly every day...1
2-3 days a week...2
Once a week...3
1 to 3 times a month...4
For special events only...5
Did not participate in youth programs on base...6

For the following age groups:

A. 6-10 years.. Q65_1
B. 11-14 years .... Q65_2
C. 15-18 years .... Q65_3

66. Below is a list of potential problems with the Youth Program. Mark any concerns you **have had with YP at this base,** for your child(ren) in the age groups listed. (MARK ALL THAT APPLY.)

Unmarked 0
Marked 1

A. 6-10 years
a. Children not interested in activities offered.. Q66A_1
b. Hours of operation. .... Q66A_2
c. Interferes with family time... Q66A_3
d. Interferes with homework... Q66A_4
e. Lack of supervision by staff.. Q66A_5
f. Location... Q66A_6
g. No problems with Youth Program.. Q66A_7
h. Poor facility.. Q66A_8
i. Takes too much parental time & effort.. Q66A_9
j. Too costly .... Q66A_10
k. Too few activities offered .... Q66A_11
l. Unfavorable peer pressure .... Q66A_12
m. Untrained staff... Q66A_13

B. 11-14 years
a. Children not interested in activities offered.. Q66B_1
b. Hours of operation. .... Q66B_2
c. Interferes with family time... Q66B_3
d. Interferes with homework... Q66B_4
e. Lack of supervision by staff.. Q66B_5
f. Location... Q66B_6
g. No problems with Youth Program.. Q66B_7
h. Poor facility.. Q66B_8
i. Takes too much parental time & effort.. Q66B_9
j. Too costly .... Q66B_10
k. Too few activities offered .... Q66B_11
l. Unfavorable peer pressure .... Q66B_12
m. Untrained staff... Q66B_13

C. 15-18 years
a. Children not interested in activities offered.. Q66C_1
b. Hours of operation. .... Q66C_2
c. Interferes with family time... Q66C_3
d. Interferes with homework... Q66C_4
e. Lack of supervision by staff.. Q66C_5
f. Location... Q66C_6
g. No problems with Youth Program.. Q66C_7
h. Poor facility.. Q66C_8

i. Takes too much parental time & effort...Q66C_9
j. Too costly ....Q66C_10
k. Too few activities offered ....Q66C_11
l. Unfavorable peer pressure ....Q66C_12
m. Untrained staff...Q66C_13

Q67. What would you change to make things better for individuals/families living at your base? Use this space to write any comments about programs/services on your base or any needs you have that were not covered in this survey. Q67

       Unmarked 0
       Marked..1

ADDITIONAL VARIABLES

Age in Years ....AGE
....__ __

Active Duty Marriage Status ....ADMARST

Single 1
Married to Civilian...2
Dual Military..3

Active Duty Status..STATUS

Active Duty...1
Civilian Spouse..2

Active Duty Rank..ADRANK

Enlisted 1
Officer...2

Civilian Spouse Rank..CSPRANK

Enlisted 1
Officer...2

Base Name ....BASE

      AMC BASES
       5 ....Andrews AFB
       13 ....Charleston AFB
       16 .... Dover AFB
       24 ....Fairchild AFB

ALL BASES

Appendix C

Matrices

Lambda-X

	Stressor event	Pile-up of demands	Resources
Deployment	$\lambda_{1,1}$	0	0
Marital pile-up	0	$\lambda_{2,2}$	0
Family pile-up	0	$\lambda_{3,2}$	0
Job pile-up	0	$\lambda_{4,2}$	0
Financial pile-up	0	$\lambda_{5,2}$	0
Personal resources	0	0	$\lambda_{6,3}$
Family resources	0	0	$\lambda_{7,3}$
Social support	0	0	$\lambda_{8,3}$

Beta

	Perception of "a"	Perception of all	Adaptation
Perception of "a"	0	0	0
Perception of all	0	0	0
Adaptation	$\beta_{3,1}$	$\beta_{3,2}$	0

Gamma

	Stressor event	Pile-up of demands	Resources
Perception of "a"	$\gamma_{1,1}$	0	0
Perception of all	$\gamma_{2,1}$	$\gamma_{2,2}$	$\gamma_{2,3}$
Adaptation	0	0	0

Psi

	Stressor event	Pile-up of demands	Resources	Perception of "a"	Perception of all	Adaptation
Stressor event	0	0	0	0	0	0
Pile-up of demands	$\phi_{2,1}$	0	0	0	0	0
Resources	$\phi_{3,1}$	$\phi_{3,2}$	0	0	0	0
Perception of "a"	0	0	0	0	0	0
Perception of all	0	0	0	$\phi_{2,1}$	0	0
Adaptation	0	0	0	0	0	0

Theta-Delta

$$
\begin{array}{cccccccc}
\delta_{1,1} & & & & & & & \\
0 & \delta_{2,2} & & & & & & \\
0 & 0 & \delta_{3,2} & & & & & \\
0 & 0 & 0 & \delta_{4,2} & & & & \\
0 & 0 & 0 & 0 & \delta_{5,2} & & & \\
0 & 0 & 0 & 0 & 0 & \delta_{6,3} & & \\
0 & 0 & 0 & 0 & 0 & 0 & \delta_{7,3} & \\
0 & 0 & 0 & 0 & 0 & 0 & 0 & \delta_{8,3}
\end{array}
$$

Appendix D

Measurement Model

$$x = \Lambda_X \xi + \delta$$

$$
\begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \\ X_5 \\ X_6 \\ X_7 \\ X_8 \end{bmatrix}
=
\begin{bmatrix}
\lambda_{11} & 0 & 0 \\
0 & \lambda_{22} & 0 \\
0 & \lambda_{32} & 0 \\
0 & \lambda_{42} & 0 \\
0 & \lambda_{52} & 0 \\
0 & 0 & \lambda_{63} \\
0 & 0 & \lambda_{73} \\
0 & 0 & \lambda_{83}
\end{bmatrix}
\begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \end{bmatrix}
+
\begin{bmatrix} \delta_1 \\ \delta_2 \\ \delta_3 \\ \delta_4 \\ \delta_5 \\ \delta_6 \\ \delta_7 \\ \delta_8 \end{bmatrix}
$$

Structural Model

$$\eta = B\eta + \Gamma\xi + \psi$$

$$
\begin{bmatrix} \eta^1 \\ \eta^2 \\ \eta^3 \end{bmatrix}
=
\begin{bmatrix}
0 & & \\
0 & 0 & \\
\beta_2 & \beta_3 & 0
\end{bmatrix}
\times
\begin{bmatrix} \eta^1 \\ \eta^2 \\ \eta^3 \end{bmatrix}
+
\begin{bmatrix}
\gamma_{11} & 0 & 0 \\
\gamma_{21} & \gamma_{22} & \gamma_{23} \\
0 & 0 & 0
\end{bmatrix}
\times
\begin{bmatrix} \xi_1 \\ \xi_2 \\ \xi_3 \end{bmatrix}
+
\begin{bmatrix}
\delta_{11} & & \\
\delta_{21} & \delta_{22} & \\
\delta_{31} & \delta_{32} & \delta_{33}
\end{bmatrix}
$$

Appendix E
Structural Equation Modeling Syntax

!LISREL Input for Analysis of Hypothesized Structural Equation Model of Stress and
!Adaptation for Married Female Military Personnel During Deployment

DAta NImput=11 NObservations=1819 MAtrix=KM

LAbels
deploy marpile fampile jobpile finpile persres famres socsup percstres
percall adapt

KM SY
1.00
0.003 1.00
-0.002 0.062 1.00
0.128 0.120 0.085 1.00
0.022 0.184 0.121 0.180 1.00
-0.137 -0.144 -0.024 -0.100 -0.170 1.00
-0.024 -0.392 -0.081 -0.264 -0.224 0.057 1.00
-0.007 0.026 0.093 0.041 0.035 -0.057 -0.032 1.00
0.097 -0.043 -0.017 0.039 -0.098 0.066 0.018 0.013 1.00
0.076 -0.002 -0.007 0.018 -0.050 0.013 0.045 0.053 -0.060 1.00
0.002 -0.201 -0.081 -0.272 -0.187 -0.042 0.445 -0.017 0.010 -0.007 1.00

!SD
!52.445 1.019 1.180 0.552 2.960 3.523 0.669 2.877 0.89322 0.492 0.702
select
percstres percall adapt deploy marpile fampile jobpile finpile persres famres
socsup
MOdel NY=3 NX=8 NE=3 NK=3 BE=FU,FI GA=FU,FI PS=SY,FR
LX=FU,FI LY=FU,FI TE=DI,FI TD=SY,FI
LE
PSTRESS PALL RESULT
LK
EVENT PILEUP RESOURCE
FR LX(2,2) LX(3,2) LX(4,2) LX(5,2) LX(6,3) LX(7,3) LX(8,3)
FR BE(3,1) BE(3,2)
FR GA(1,1) GA(2,1) GA(2,2) GA(2,3)
FR TD(2,2) TD(3,3) TD(4,4) TD(5,5) TD(6,6) TD(7,7) TD(8,8)
ST 1.0 LX (1,1) LY (1,1) LY (2,2) LY(3,3)
PAth Diagram
OUtput SC EF MR MI PC Ad=off