INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

Université d'Ottawa · University of Ottawa

Satisfaction of Sojourner Couples Residing in Nepal: The Mediating Role of Social Support and Personal and Couple Resources

Susan James

A thesis submitted to the School of Graduate Studies of the University of Ottawa as partial fulfilment of the requirements for the degree of Doctor of Philosophy

This thesis is dedicated to my grandmother, Ida Stapley, my father David James, my aunt and uncle, Joan and Lloyd Skeoch and the memory of my mother Eleanor James.

Acknowledgments

I would like to express my gratitude to all of those who so generously contributed to the shaping of this work. I am especially indebted to Dr. John Hunsley for his invaluable contributions to my growth as a researcher and for nurturing in me a sense of appreciation (and dedication to) for psychological research. Additionally, I would like to express my sincere gratitude to Dr. Catherine Lee for her training in family psychology and family therapy and encouraging my interest in integrating theoretical, empirical, and clinical aspects of psychology. I would also like to thank Dr. Luc Pelletier for his patient and invaluable guidance with the data analysis. Furthermore, I am indebted to the expatriate community of Nepal for their acceptance when I was a member and their participation when I was a researcher and I would like to give a special thanks to those in the community who facilitated both processes.

Numerous family, friends, and colleagues have supported me in various ways in this endeavour. Over the years my cousin Emilie James and my friends Jeevan Viveganantha and Sarah Torontali have provided me with limitless love and support. At the University of Ottawa, I am grateful to my classmates and friends Theo De Gagne, Christine Korol and Diane Chapel; not only for their challenges on academic matters but also for enriching

the experience of graduate school with their warmth and wit.

Finally, I thank those to whom I dedicate this thesis; my grandmother, Ida Stapley, my father, David James, my late mother, Eleanor James, and my aunt and uncle, Joan and Lloyd Skeoch. Each in different ways, they educated me in the fullest sense. Without their love and faith in me this project would not have been possible.

Abstract

Improvements in transportation have made it more feasible for families to relocate greater distances, sometimes even to other countries. Although this is now a frequent occurrence, the family dynamics associated with adjusting to a new culture have been virtually ignored by researchers. When investigating sojourner families (families who live in foreign countries), researchers rarely integrate the family stress literature, which focuses on stresses incurred in one's native country, and the sojourner literature, which is based on stresses inherent in living in a foreign country.

The aim of the present study was to develop and test a model of intercultural family relocation based on an integration of the family stress and sojourner literatures. The model, based on the Double ABCX model, was tested with expatriate couples (N=205) stationed in Nepal with aid agencies, mission organizations, and corporations. More specifically, personal resources identified in the sojourner literature and traditional family stress mediators were investigated to determine whether they played a significant role in mediating the stress-satisfaction relation.

The model was tested using structural equation modeling. The results indicated that personal resources (locus of control and self-esteem) and social support did mediate the stress-

satisfaction relation, as hypothesized. The family variables, on the other hand, coherence (confidence and acceptance) and couple resources (communication, adaptability, and cohesion), did not directly influence the stress-satisfaction relation.

Even though the Double ABCX model is one of the most popular models in family psychology, it was only partially supported by empirical investigation with the sojourner couples living in Nepal. Thus, the results call into question the model's overall validity and generalizability. Future research will need to address this question by testing the model with families in various contexts.

Table of Contents

Table of Contents

List of Figures

List of Tables

Satisfaction of Sojourner Couples Residing in Nepal: The Mediating Role of Social Support and Personal and Couple Resources

Overview

Although modern circumstances often force families to relocate to another community, family relocation was uncommon before the beginning of this century. Recent advances in technology have encouraged contact with distant places and have increased mobility. It is estimated that every year 40 million families relocate within the United States and 4 million within Canada (Glick, 1993).

Due to the presumed effects of relocation on family functioning, family stress researchers have increasingly focused their attention on the study of mobile families. The results of more recent studies have indicated that the family's reaction to relocation is more complex than was first posited in earlier research that simply tested the relation between relocation and stress (Barling, 1990). The more sophisticated studies in this domain include an investigation of factors that protect the family from the adverse effects of relocation, such as social support (Lavee, McCubbin, & Patterson, 1985; McCubbin & Lavee, 1986; McKain, 1976), couple resources (Ammons, Nelson, & Wodarski, 1982; Lavee et al., 1985; McCubbin & Lavee, 1986), and coherence (McCubbin & Lavee, 1986, Lavee, McCubbin, & Olson, 1987). Coherence refers to family members' acceptance of the

problem, and confidence that environments are predictable and that the family has the ability to cope with the stressor (Lavee et al., 1985).

Improvements in transportation have made it more feasible for families to relocate greater distances, sometimes even to other countries. Researchers who study intercultural migration have noted that the stress incurred by moving across cultures is affected by personal resources such as locus of control (Dyal, Rybensky, & Somers, 1987; Ward & Kennedy, 1992; M. Young, 1991) and self-esteem (Padilla, Cervantes, Maldonado, & Garcia, 1988; M. Young, 1991).

Even though the majority of people who move to other countries do so with their families, the family dynamics associated with adjusting to a new culture have been virtually ignored by researchers. When investigating sojourner families (families who live in foreign countries), researchers rarely integrate the family stress literature, which usually focuses on stresses incurred in one's native country, and the sojourner literature, which is based on stresses inherent in living in a foreign land.

The present study was designed to integrate the family stress and sojourner literatures into one theoretical model that can be used to study intercultural family relocation. The model was tested with expatriate families stationed in Nepal with aid agencies, embassies, mission organizations, and corporations.

More specifically, I investigated whether personal and couple resources play a significant role in the mediation of the stress-satisfaction relation. However, before introducing the study, a review of the relevant family relocation and sojourner literatures, and an examination of the cultural context in which the study occurred, will be presented.

Family Relocation

It is estimated that every year, one in five North American families changes residences, and almost half of the population changes residences within the space of 5 years (Glick, 1993). The majority of relocations are job-related and are made by families in which one or more family members are involved in, *inter alia*, the military, corporations, academic institutions, or the government. Considering the large number of families that relocate, it is surprising that researchers have not paid more attention to this population. Although difficulties associated with relocation have frequently been examined, particularly in the popular literature, few well-designed studies have been completed (for some exceptions see Brett, 1980; Brett, 1982; Munton, 1990).

Problems with the Research

The most salient difficulty with the relocation literature is that it has tended to be atheoretical. As the domain is still in its infancy, it has not yet developed to a point at which researchers are working within an integrated framework.

Consequently, there are still many questions that need to be addressed. In addition, many of the measures used are not psychometrically robust and rarely is more than one type of adjustment measure included in a study (Marchant & Medway, 1987). Finally, many researchers provide interpretations of their data which are not supported by the statistical analyses conducted. For instance, researchers often use zero order correlations to suggest that a variable has a mediating or moderating effect (e.g., Marsh, 1976; McKain, 1976).

In the following section, the best designed relocation studies will be reviewed. First, I will focus on studies that investigated the stress-distress relation between relocation and functioning. For the most part, the results of these findings are inconsistent. In reconciling these inconsistent findings, it is important to consider whether other factors mitigate the relocation experience, such as social support, couple resources, and perception. These mitigating factors will be the focus of the second half of this section. In addition, a review of the literature on trailing spouses (i.e., people who relocate because of their spouses' employment) will be presented.

Stress-Distress Literature

Early work in the relocation domain often used anomie theory as a basic premise. Anomie theory was first introduced by French sociologist Durkheim in 1895. Durkheim suggested that when a social group is in a state of relative normlessness, it develops

incongruencies or deviations. In his view, anomie was endemic to modern society due to a lack of social contact and integration. In the mid-twentieth century the term was adopted to describe individuals, such as relocators, who had lost community support (Merton, 1957; Srole, 1956). Although many sociologists and psychologists speculated that mobility was related to anomie, this hypothesis was rarely tested empirically. However, a study conducted by McKain (1976) found that feelings of alienation among mobile wives were strongly related to family problems, supporting anomie theory.

Assuming a link between anomie and mobility, the dominant paradigm reflected in early research on mobility depicts relocation as pathogenic. Thus, a number of early studies tested the stress-distress relation between mobility and mental and/or physical health. For instance, Fried (1963) found that most relocated workers suffered from gastrointestinal difficulties and depression following a transfer. Other researchers found that relocated individuals had more health difficulties and psychological symptoms than did workers who did not move (Brett, 1982; Syme, Hyman, & Enterline, 1965).

On the other hand, more recent research has supported claims that mobility need not be pathogenic. Brett (1982) compared a sample of 350 employees who had voluntarily transferred to a new location within the same country with a control sample of nonmobile employees at the same corporation. Although mobile

families were less satisfied with their social relationships, they were more satisfied with their marriages, families, and lives, than were the control group. This finding was corroborated by Hunter (1982) who found that mobile military couples usually reported higher levels of marital satisfaction than did nonmobile couples.

Similarly, another study investigating military families found that the number of relocations was not negatively correlated with personal well-being (Marchant & Medway, 1987). In fact, the results indicated that mobility was positively related with social competence and with child competence and achievement. In addition, the degree to which the spouse identified with the military was strongly related to child adjustment.

Lastly, an interesting study conducted by Wamboldt and his colleagues (Wamboldt, Steinglass, & Kaplan De-Nour, 1991) investigated the relation between relocation adjustment and the coping styles of the partners. The participants were residents of Ophira, a town in the Sinai Peninsula, Israel. In 1982, Israel was required to evacuate all of its citizens from the Sinai Peninsula in fulfilment of the Camp David Accords with Egypt. Hence, all of the residents of Ophira had to relocate throughout Israel. Data were collected one month before and two years after the relocation. The results indicated that, following relocation, the similarity of couples on psychological

and social adjustment measures increased dramatically. The authors proposed a systemic hypothesis to explain their findings, suggesting that the increase in similarity following relocation may have occurred because the couple adapted to the situation as a system and supported one another.

Although some questions remain unanswered, it is possible to draw a couple of tentative conclusions. First, the early claim that relocation is physically or psychologically damaging has not consistently been supported. This finding suggests that there may be a subgroup of the population for whom relocation is not harmful, allowing for the possibility that there are other factors that affect the stress-satisfaction relation (i.e., the assumption that stress always leads to a decrease in satisfaction). Second, there does seem to be support for the notion that relocators feel alienated and have less satisfaction with their social relationships.

The Trailing Spouse

Some research has focused solely on women's adjustment as it was hypothesized that relocation would be more difficult for them because they often move involuntarily and lose their employment in the process when they are married. A number of studies of wives of transferred employees found that they are vulnerable to depressed mood (Brett 1980; Seidenberg, 1973; Weissman & Paykel, 1972). Other studies have reported that relocated wives experienced diminished self-esteem (Gaylord, 1979; Seidenberg,

1973), a sense of powerlessness (Weissman & Paykel, 1972), and loneliness (Ammons et al., 1982; Seidenberg, 1973), which they attributed to the social, employment, and identity losses that the wives endure.

Munton (1990) found that a loss of social ties was the greatest predictor of whether the family experiences a high level of stress due to relocation. These results are comparable to Brett's (1982) finding that the loss of social support was a significant source of stress for mobile families. Similarly, Hunter's (1982) study of mobile military couples showed that they tended to be less satisfied with friendships than were nonmobile couples.

In addition to leaving their network of supportive relationships, many wives must also leave their jobs to remain with their partners. A study by Cooper (1981) suggested that relocation is more difficult for women who have a career, as the wives are often economically disenfranchised in the move. Shihadeh (1991) found that wives most often defer to their husbands, which increases their difficulty in finding work after migration. Another study of mobile married women (Morrison & Lichter, 1988) found that migration is related to labour force nonparticipation, underemployment, and low pay.

A further potential loss for the accompanying spouse is that of his or her identity. Bayes (1989) suggested that relocation is related to a decrease in mastery and self-esteem for the

trailing spouse, which leads in turn to a decrease in her sense of self. Seidenberg (1973) posited that the spouse's (typically the wife's) loss of identity is due to the loss of status earned through accomplishments in her social and professional environments.

However, there are also studies that do not support the notion that relocation is particularly difficult for the trailing spouse. A study of 256 recently relocated wives found that, contrary to the popular literature (and the notion of anomie), the wives did not feel alienated; indeed, they enjoyed their new community (Jones, 1973). Similarly, a study by Butler, McAllister and Kaiser (1973) demonstrated that relocation, whether voluntary or involuntary, had little effect on informal social relations, alienation, despondence, or physical health.

Thus, the literature on the trailing spouse indicates that the trailing spouse suffers a number of losses. However, much of the research in this domain was conducted over 20 years ago when women's roles were much different. Thus, it is unclear if that research applies to a present-day context. Additionally, there are a number of questions that still need to be addressed. First, in all of the studies in this literature a gender difference has been presumed but not yet tested. Second, the researchers have not tested trailing spouses who are men to determine if the presumed gender differences are really differences between relocation initiators and trailing spouses.

Lastly, although there has been much speculation that relocation is more difficult for the trailing spouse than for the relocation initiator, it has never been tested empirically.

Resources

A series of studies have investigated the stress-distress relation between relocation and functioning. Having established this link, researchers could then move on to investigate exceptions to this relation. Thus, researchers have begun to investigate the personal, familial, and social resources that help mitigate relocation strain. The resources for which there is empirical evidence are community supports (Marsh, 1976; McKain, 1976), voluntary relocation (Makowsky, Cook, Berger, & Powell, 1988; Stokols & Shumaker, 1982), pre-move information (Jones, 1973; Marsh, 1976), attitude toward the move (Barling, 1990; Barrett & Noble, 1973), and couple resources (Ammons et al., 1982).

Community Support. McKain (1976) and Marsh (1976) found that army families that suffered the most after relocation tended to use community supports the least, suggesting that community supports may help facilitate the transition. Community supports included forming new friendships and becoming involved in community activities.

Voluntary Move. Another proposed factor influencing relocation stress for the trailing spouse is whether the move is voluntary. Several researchers have found that involuntary

movers felt significantly less control and demonstrated lower levels of satisfaction with their marital relationships after the move than did voluntary movers (Makowsky et al., 1988; Stokols & Shumaker, 1982).

Communication. Couple resources have also been investigated. Ammons, Nelson, and Wodarski (1982) investigated the responses of 80 members of corporate families. They found that there was a relation between well-adjusted moves and good communication between the partners.

Adaptability. In the same study (Ammons et al., 1982), the researchers also found that flexibility was related to well-adjusted moves. The couples who adapted well were able to find new patterns to better suit the situation, sometimes changing roles, rules, and behaviours.

Family-Organization Fit. Finally, from the sample of 80 families (Ammons et al., 1982), the families who felt that their lifestyle fit with the demands of a corporate career found relocation less stressful.

Thus, there is evidence to support the notion that community supports, voluntary relocation, pre-move information and stress, perception and couple resources are related to positive relocation experiences.

Intercultural Relocation

Not only do people relocate domestically, but international relocation has become a common occurrence. Sojourners can experience acculturative stress, which is a specific type of stress in which the stressors are a consequence of continuous contact with another cultural group (Berry, 1987).

Cross-cultural psychologists have extensively examined the experience of immigrants' and refugees' adaptation to their new culture. They have explored the mental health of these two groups (Kim, 1984; Lin, Masuda, & Tazuma, 1982), and coping resources such as social support (Shisana & Celentano, 1985; Ward & Kennedy, 1992; M. Young, 1991), locus of control (Berry & Kim, 1988; Dyal et al., 1987; Ward & Kennedy, 1992) and self-esteem (Padilla et al., 1988; M. Young, 1991). The literature on refugees and immigrants will not be reviewed extensively as it is beyond the scope of this thesis and only articles particularly relevant to pertinent variables will be included. Instead, my intention is to focus primarily on studies of sojourners. Berry (1987) indicated that the experience of sojourners is distinct from that of immigrants and refugees. Unlike immigrants, sojourners live in a foreign country temporarily and for a specific purpose. This group includes foreign students, military personnel, guest-workers, and international and business personnel.

One focus of the sojourner literature has been to determine

if there is an adaptation time line for international sojourners. Originally, a U-curve theory was proposed by Lysgaard (1955) that described three periods of adjustment: an initial period of elation; a period of frustration; and then a period of recovery. A recent study of this model (Hsiao-Ying, 1995), however, does not support the U-curve hypothesis with sojourners (N=321) in Japan.

Other studies in this domain have focused on the psychological consequences of international relocation. Berry and Kostovcik (1983) found that a sample of Malay students studying in Canada showed as many psychological distress symptoms as did refugees and more than did a control group of Canadian students. On the other hand, a study of Portuguese workers in Switzerland found that the workers had fewer symptoms of distress than did a control group in Lisbon (Simoes & Binder, 1980). Thus, it appears that, similar to intracultural relocation, the stress-distress relation is more evident for some groups of intercultural migrants than for others. These inconsistent findings allow for the possibility that there are other factors that mitigate the relocation experience.

Social Support

A study conducted by Rohrlich and Martin (1991) found that for American exchange students visiting other countries (N=250), communication with host nationals was a significant predictor of satisfaction. Additionally, 84 New Zealand adults stationed in

Singapore participated in a study by Ward and Kennedy (1992). These researchers found that psychological adjustment was predicted by relationship satisfaction, social difficulty (ability to cope in the host culture), and by the amount of contact with host nationals.

Locus of Control

In the aforementioned study (Ward & Kennedy, 1992) the investigators also examined the personal resource of locus of control (LOC). They found that internality was associated with adjustment even though externality is more common among the nationals of Singapore (as it is a collective society; Ward & Kennedy, 1992).

Self-Esteem

The role of self-esteem for sojourners has not been addressed; however, self-esteem has often been found to be an important variable in immigrant studies. M. Young (1991) investigated the relation between self-esteem and the adaptation of Salvadoran refugees to Canada and found that it acted as a moderator of the relations between acculturative stress and both life satisfaction and quality of life. In addition, self-esteem was found to be directly related to life satisfaction, quality of life, and psychological distress. Similarly, Padilla and colleagues (1988) found that self-esteem was a significant predictor of anxiety and depression in Central American refugees and immigrants residing in the United States.

Evidently, in the sojourner literature there are findings to support the hypothesis that there are social and personal resources that seem to aid cross-cultural adaptation for both refugees and sojourners. To date, social support, locus of control, and self-esteem have been identified as resources.

Intercultural Family Relocation

Few studies have investigated how sojourner families adapt to living in a foreign country. As in other sections, I will review the early studies that investigate whether or not intercultural family relocation is detrimental. This will be followed by a review of studies that have investigated factors that facilitate the transition, such as marital communication, social support, and locus of control.

One of the first studies in this domain was conducted in 1927 by Thomas and Znaniecki (cited in Jones, 1973). They suggested that an ethnic enclave in the new location mitigated relocation strain by maintaining the social structure of the previous culture. Similar findings were reported by P. Young (1932) in her study of Russian immigrants.

Stringham (1993) suggested that intercultural family relocation is difficult because the family suffers from the loss of several reinforcers, including sensate reinforcers (such as foods, music, and smells), instrumental reinforcers (i.e., aids in accomplishing tasks at home or in the office, such as washing machines or computers), and social reinforcers. In addition, the

intercultural migrant faces the unique challenge of coping with a different cultural frame of reference. In a study of relocating families, Stringham (1993) found that relocation stress was complicated by concurrent life transitions, a history of dysfunctional family-of-origin relationships, and asymmetrical power distribution in the marriage.

Other studies have not supported the notion that intercultural family relocation is detrimental. For instance, a study of 120 expatriate wives in Hong Kong conducted by McCoy (1983) found that 27% mentioned health problems associated with stress. The author suggested that this is not a high incidence rate and she found no evidence to indicate that the expatriates were suffering from extraordinary amounts of stress. Similarly, two thousand families in Israel were surveyed to determine if immigration was related to marital conflict (Hartman & Hartman, 1986). The results indicated that migrant couples reported less conflict than did non-immigrant couples, supporting the hypothesis that, for at least a subgroup of the migrant population, immigration brings the couple closer together as they tackle common difficulties.

Communication

A number of resources have been investigated to determine their role in the stress-distress relation. A study of 139 Japanese immigrant wives found that good marital communication acted as a moderator of acculturative stress (Noda, Noda, &

Clark, 1990).

Length of Stay

In the same study (Noda et al., 1990), the researchers found that length of stay in the host country was also a stress buffer. Similarly, other studies have found acculturative stress of immigrant wives was moderated by age, educational background and complexity of the language (Inbar, 1977).

Social Support

A study by Dyal and his colleagues (1987) compared an acculturating group (Indo-Canadian married women) and a nonacculturating control group (native born Euro-Canadian married women) on various dimensions. The results indicated that for the acculturating group social support had a direct effect on distress (negative correlation) but did not act as a moderator.

Locus of Control

In the Dyal et al. study (1987), for the acculturating group, the LOC variable was the most consistent predictor of distress for all four of the distress measures (as externality increased, distress increased). Further analyses revealed that although it had a direct effect on distress, it did not act as a moderator.

The Double ABCX Model

As the foregoing review indicates, the intercultural family relocation literature is not yet at a point where researchers are explicitly outlining the theoretical assumptions that guided

their selection of constructs and their choice of analyses. There is one exception, however. A series of studies have been conducted on one thousand military families relocating to Europe using the Double ABCX model as the conceptual framework. These studies will be reviewed after a brief review of family stress models and a description of the Double ABCX model is presented.

The Double ABCX model was built on a theoretical framework laid by Angell (1936) and Hill (1949) in the first half of this century. Angell (1936) suggested that there are two principal methods to cope with a loss of income: integration (a family's unity and commonality); and adaptability, which he defined as flexibility. He suggested that families with flexible roles, and sufficient integration (or cohesion), are better able to adapt to stress.

Later, Hill (1949) presented a well theorized study on family stress due to war separation. Hill (1949) refined the roller-coaster adjustment model first proposed by Koos (1946). Hill's model portrays the family as a homeostatic system which functions well until a crisis event causes disorganization. During a recovery period the family reorganizes itself in stages until it reaches homeostasis once again. The new level of family functioning is not necessarily lower than before the crisis; it can be the same or higher than the level of pre-crisis functioning.

Hill (1965) further advanced the family stress domain with

the introduction of his ABC-X model of family stress. The principal tenet of the model is that stressors (A), resources (B), and perceptions (C), interact to influence the degree of severity with which a crisis (X) will be experienced. Family stressors (A) were identified as events that precipitate change in the family system. The family's resources (B) are individual or family factors that contribute to coping ability such as self-esteem, family cohesion and adaptability, and social support networks. Finally, the subjective meaning that the family ascribes to the stressful event was identified as the "C" factor. This was the prominent model of family stress until McCubbin and Patterson (1982) expanded it to include post-crisis variables resulting in the Double ABCX model.

One advantage of the Double ABCX model (McCubbin & Patterson, 1982) is that it allows identification of supplemental stressors that exist at the time of the stressor event and that contribute to the accumulation of stressors (aA) over time (see Figure 1). For example, family life cycle changes, and stressors resulting from attempts to solve the problem, are potential supplemental stressors.

Insert Figure 1 about here

Another advantage of the Double ABCX model is that it distinguishes between family factors that predate the stressor

event and those that are adopted to cope with the situation. In addition, the model has been expanded to suggest that the adoption of new resources (bB) may not necessarily be related positively to adaptation. Additionally, the perception dimension (cC) now includes the perception of the stressor, and the family's orientation to the circumstances. Family coherence refers to a family that a) is able to accept the problem, (b) believes that environments are predictable, and (c) believes that the family has the ability to cope with the stressor (Lavee et al., 1985).

Finally, the basic tenets of the Double ABCX model suggest that family adaptation is the outcome of this process (Lavee et al., 1985). Crisis is no longer the end point, but rather just one stage in the adjustment process. Adaptation, a term that McCubbin and Patterson (1982) use interchangeably with adjustment, can range from maladaptation (a chronic inability to meet demands) to bonadaptation (little discrepancy between demands and capabilities) that restores homeostasis. Homeostasis is defined as the family restoring stability at its prior level of functioning or another level where the capabilities of one system can meet the demands of another system (McCubbin & Patterson, 1982).

The Double ABCX model has gained wide-spread clinical popularity due to its generalizability, simplicity and the paucity of competing models. Although the Double ABCX model is

more inclusive than the ABCX model, it is also more ambiguous. For instance, it is not always clear how the factors that mediate stress and adaptation are different from one another. Additionally, McCubbin's language is often inconsistent using the terms "adaptation" and "adjustment" interchangeably when labelling the xX variable and then operationalizing xX as "Well-Being" when testing the model empirically. Lastly, the Double ABCX model is a recursive model and, unfortunately, statistical tools are not yet available to test a recursive model in its entirety. Thus, when researchers (myself included) maintain that they are testing the Double ABCX model they are not testing the Double ABCX model *per se*, but rather they are testing a non-recursive proxy consistent with the Double ABCX model.

A study that investigated causal relationships in a manner consistent with the model was conducted by Orr, Cameron, and Day (1991). They found support for the Double ABCX model with a sample of 86 parents of mentally retarded children. In addition, a plethora of studies have investigated the inter-relations between various combinations of the variables of the Double ABCX model. The results of studies with primary caregivers of dementia patients (Rankin, Haut, & Keefover, 1992), mothers of autistic children (Bristol, 1987), and women who were recently separated or widowed (Crossman & Edmondson, 1985) also support components of the model. Thus, although there is preliminary evidence to suggest that the Double ABCX model is relevant in

various contexts, more research is needed to assess the generalizability of the model.

As mentioned previously, the Double ABCX model has also been tested with families who have relocated to another country. Three studies have been conducted with a sample of army couples relocating to Germany (Lavee et al., 1987; Lavee, McCubbin, & Patterson, 1985; McCubbin & Lavee, 1986). McCubbin and Lavee (1986) tested all of the variables of the Double ABCX model with 1,140 army families. The researchers designed questionnaires specifically for the sojourner army families that measured the following six constructs: (a) Pile-up of demands (aA; comprising family life changes, pre-travel hassles, and post-arrival hassles); (b) Personal Strengths (bB; comprised of rank, coping skills, and spouse's employment and self-confidence); (c) Family Strengths (bB; emotional and esteem support, and family cohesion); (d) Community Supports (bB; community and friendship support, quality of religious programs, services, and sponsorship); (e) Family Appraisal (cC; predictability, commitment to the army, controllability, family-army fit) and lastly, (f) Adaptation (xX; husbands' and wives' individual well-being, and family distress).

A multiple regression analysis was conducted which regressed all of the variables onto adaptation. The predictor variables accounted for 33% of the variance and all of the variables were significant except for spouse's employment (bB), spouse's self-

reliance (bB), religious programming (bB), command sponsorship (bB), and spouse's coherence (cC). Three of the four spousal factors (compared to 2 of the 13 nonspousal factors) were not predictive of adjustment, suggesting that the resources of the participant's spouse were not good predictors of the participant's adjustment. Unfortunately, the study is limited because the latent variables suggested in the model are not tested as a whole but rather each subscale was tested separately. For instance, rather than investigating the relation between family strengths and adaptation directly, the authors investigated the relation between adaptation and each of the family strengths subscales (i.e., emotional and esteem support, and cohesion) separately.

The causal relation of these variables was tested with this sample in a study by Lavee and his colleagues (1987) using structural equation modeling. The latent variables were stressful events (aA), normative transitions (aA), family strain (aA), marital adjustment (bB), sense of coherence (cC), and well-being (xX). The results supported the model, indicating that besides the direct link between strain and well-being, marital adjustment and coherence both mediated that relation. However, there were a few limitations with the study. For instance, the three "aA" latent variables were measured with a single indicator (as opposed to multiple indicators), which limits the analyses (Byrne, 1989). Thus, the study would be strengthened by treating

the three "aA" variables as multiple indicators of the "aA" latent variable (pile-up of demands). This is more conceptually and statistically sound; typically, it is preferred to have three indicators per latent variable (Byrne, 1989). Second, the model was statistically driven rather than conceptually driven, as all of the possible paths were tested rather than testing only those paths which were based on the model. Third, the sample size used for the marital adjustment and well-being variables is half of that for the other variables because husbands' and wives' data were combined to measure these constructs. Although Cook (1994) suggested that causal modeling may provide an effective method of combining husbands' and wives' data, the authors used this approach for only 2 of the 6 constructs, thus limiting rather than enhancing their analyses. Lastly, the authors altered the model to improve its fit with the data without providing a theoretical rationale for the changes (Byrne, 1989). Although there are several difficulties with the study it is strengthened by the authors' cross-validation of the model.

An alternative causal model was also tested and included the latent variable community support, and adaptability and cohesion as indicators of couple resources (Lavee et al., 1985). Once again the authors seemed to do exploratory causal modeling rather than testing a model that was consistent with the Double ABCX model. For instance, they hypothesized that resources and community support (in the new location) would cause relocation

strain (measured while still in the previous location). Instead, the authors should have tested a hypothesis consistent with the model; that relocation strain would impact on resources and community support. Not surprisingly, they did not find a significant path between resources and relocation strain. As this is such a salient part of the model, it is unfortunate that it was not tested. Surprisingly, the authors found statistical evidence that community support in the new location caused relocation strain, a temporal sequence that is impossible.

In summary, this series of three studies (Lavee et al., 1987; Lavee et al., 1985; McCubbin & Lavee, 1986) has implications for future research on issues of sample and analysis. First, the sample of sojourners tested was composed of military families living on a base in Germany and, consequently, having limited contact with the host country. Thus, the research needs to be expanded to include other types of sojourners who have more extensive contact with host nationals, such as students or workers. In addition, the same sample was used in all of the studies which can increase the probability that the results are due to chance. Finally, although the results provide preliminary support for the model, there were difficulties with the model tested using structural equation modeling. Thus, in order to validate the Double ABCX model, studies are necessary that use different samples and well-defined models.

Walker (1985) suggested that, in the family stress

literature, the context in which stressful events occur has not been adequately investigated. In the aforementioned series, it was evident that the researchers only focused on the family system and did not investigate adjustment to the larger social system (i.e., Germany). Thus, future studies should also examine the sojourner's ability to adapt to both the expatriate community and the larger context.

The Present Study

Rationale

Research on family relocation has been sparse and often atheoretical. Thus, this project tests a prominent family stress model with married sojourners living in Nepal. The rationale for choosing this sample was two-fold. First, most research on acculturation involves studying immigrants (usually from countries labelled "third world") relocating to pluralistic societies. It is very possible that the results are not applicable for Westerners moving to a "third world" country. Thus, to get a broader understanding of intercultural family relocation the participants were "first world" minorities living in a nonpluralistic society (Patridge, 1987).

Second, most of the sojourner literature focuses on students and military families. This study extends the literature to a population that has largely been ignored, sojourner workers and their families. This population needs to be investigated because the existing literature on students and military families may not

be applicable to sojourner workers. On a continuum of sojourner assimilation into the host culture, the students are at one extreme (high assimilation) and the military personnel are at the other extreme (limited contact with the host culture). The sojourner worker, on the other hand, falls in between these two groups. Thus, research with this population is crucial to elucidate the process of adaptation of the sojourner worker.

Third, it is also important to learn more about this population because studies show that 25 - 40% of expatriates posted overseas depart from their host country prematurely (Mendenhall & Oddou, 1985). One of the most frequent reasons for a hasty repatriation is that the sojourner's partner is experiencing difficulty adjusting (Tung, 1981). Additionally, the number of sojourner workers is growing as the United Nations and other international organizations are shifting away from military involvement to more humanitarian activities (United Nations Development Project, 1992). Thus, I was interested in investigating the adjustment process of the couple residing in a novel culture.

Nepal. Nepal offers an ideal context in which to study the aforementioned questions because of the large sojourner worker population and the novelty of the context. The landlocked Kingdom of Nepal is situated in the Himalayas between India and the Tibetan region of China. The majority of Nepal's population, currently estimated at 19 million, live in abject poverty.

According to the Human Development Report (United Nations Development Programme, 1993), Nepal is the seventh poorest country in the world, with an average annual income of US$170. In an effort to improve living conditions, many international development agencies station their employees in Nepal. The majority of the development workers move to Nepal with their families; thus, it is an ideal location to investigate sojourner couples.

The expatriate must adapt to the change in physical conditions. First, many resources previously taken for granted, such as running water, electricity and heat, are often unavailable (Selvig, 1989). Second, they are often unaccustomed to the Nepali climate, such as monsoons or the stifling heat (over 40^0C) in the plains region. Lastly, the greatest physical hardship to which the expatriate must adapt is frequent (almost weekly) bouts of sickness (such as viral and parasitic infections, allergies caused by poisonous caterpillars, and hepatitis, etc.; United Nations Development Programme, 1992).

Wrubel, Benner, and Lazarus (1981) have identified four characteristics of environmental demands that strain adjustment capabilities, all of which apply to the Nepal context. The first characteristic is uniqueness. Certainly, the behavioral repertoires and skills, learned in Western nations, have not prepared the expatriate for the novel experiences encountered in Nepal (e.g., smiling and laughing when engaged in an argument).

Second, the duration of the environmental demand influences the degree of stress experienced. Most of the organizations post their employees in Nepal for two to ten years, a long time to cope with such demands. Third, pervasiveness is a factor that influences stress. Certainly the novel context affects every facet of the expatriate's life. Activities that are routine in the expatriate's home country, such as purchasing a loaf of bread, getting a haircut, or receiving one's mail, become a complicated task in Nepal (Hale & Hale, 1987). Finally, the ambiguity of the situation contributes to the stress associated with it. In Nepal, the cultural norms and values are extremely different from those of Western nations. Therefore, the expatriate must decide which rules are appropriate and when to employ them. For instance, because Nepal is a Karma-oriented society, Nepali customs often reflect their fatalistic beliefs. Thus, when a motorist hits another vehicle, which is a frequent occurrence due to the chaotic state of the roads (cows, pedestrians, and motorists share the same narrow dirt lanes), the offended party investigates the damage, smiles and says "Ke Garne?" (meaning "what to do?"), and then departs. However, if the motorist hits a cow, which is considered to be an incarnation of a deity, the casual fatalistic stance is no longer adopted and the motorist is imprisoned (Hale & Hale, 1987).

As the environmental demands of the Nepal context are numerous, it is expected that expatriates use a number of

resources to adapt to the novel environment. Personal and couple resources, social support, and coherence are the resources that were investigated in the present study.

The present study integrates the relocation and sojourner literatures into one theoretical framework by testing an expanded version of the Double ABCX model with sojourners stationed in Nepal. More specifically, I investigated whether personal resources, based on the sojourner literature, and traditional family stress mediators play a significant role in mediating the stress-satisfaction relation. As a theoretically-based model was tested, the findings not only identified relations between constructs but, more importantly, provided valuable information about the model. Unfortunately, many family models (such as the Double ABCX model) have wide-spread clinical popularity, without having thorough empirical validation. This study is an attempt to address that issue.

The Proposed Model

Family systems theory suggests that an individual is part of multiple systems, such as individual, familial and contextual (i.e., environmental) systems (Melson, 1983). In the proposed model presented in Figure 2, variables that represent these three systems together constitute the latent variables of (aA) Pile-up of Demands, (bB) Resources, (cC) Coherence, and (xX) Well-being. It should be noted that at the family system level this study is focusing primarily on a family subsystem, namely, the couple.

This subsystem was highlighted, rather than focusing on all of the family members, in order to be consistent with past research. Any studies testing the Double ABCX model have focused on the couple and relied on them to be the informants rather than including data from children. Similarly, past research has focused on the individual in a couple context rather than investigating the functioning of the couple as a unit. Thus, the study will not be restricted to couples where both partners participate in the study.

Insert Figure 2 about here

(aA) Pile-up of Demands was operationalized by two variables specifically related to the stressor event (living in Nepal). The individual system demands were tested with a measure of individual perceived stress. The family system and contextual demands were measured by an instrument which investigates the number and severity of daily hassles that the respondent has experienced in the past month.

(bB) Resources also represent the three systems and were therefore divided into three categories, personal resources, couple resources, and social support (contextual resources). The most well-supported personal resources in the sojourner literature (locus of control and self-esteem) were chosen as dimensions of the personal resources latent variable (individual

system). Adaptability, cohesion, and communication are well-documented resources in the family stress literature (e.g., Olson et al., 1985) and, therefore, constituted the couple resources latent variable. Lastly, extra-familial social support (the contextual resource), has received the most attention in the relocation literature. It was measured by the availability of tangible, belonging, and appraisal support.

In the study of military families conducted by McCubbin and his colleagues (1986), Coherence was delineated as a cC factor that included variables at the individual and contextual level such as: controllability, predictability, commitment to the organization, and perceived suitability of the couple for the lifestyle demands of the organization. Lavee et al. (1987) described Coherence as a cC factor at the family level, consisting of the ability to think of family problems as manageable by accepting problems and having confidence that the family can solve them (confidence/acceptability). In an attempt to operationalize this complex construct in a manner that combines both approaches, all of the aforementioned constructs were chosen to represent the cC factor, Coherence.

Lavee and his colleagues (1987) operationalized the xX factor as Well-being, which included satisfaction with various domains of the respondent's life including health, family and community (personal satisfaction). In the present study, Well-being, or more accurately Satisfaction, was expanded to include

relationship satisfaction and post satisfaction (contextual system), which measured the expatriate's satisfaction with his or her general living conditions and interactions with host nationals.

McCubbin and Patterson (1982) suggested that there are a number of pre-existing exogenous factors (determinants) that can influence the amount of stress experienced. Prior familial strains can exacerbate the situation whereas pre-existing resources can facilitate adjustment. The pre-existing resources examined in the study were the number of years the couple has lived in the Third World and in Nepal, the number of moves that the couple has made together, and the extent to which the move was voluntary.

Hypotheses. Structural equation modeling was used to test the model presented in Figure 2. Structural equation modeling was chosen because (a) the whole model can be tested simultaneously, and (b) a longitudinally based model (such as the Double ABCX model) can be tested with cross-sectional data. The proposed model tests the most basic assumptions of the Double ABCX model, namely, that there are variables that act as stress mediators. Although a more complex model with paths between the mediators could have been tested, it is premature to test such a model. It is necessary to establish that the stress mediators proposed in the literature exist simultaneously before testing the paths between them. Hence, the most parsimonious model was

chosen.

An assumption of structural equation modeling is that the observed variables are linearly related. Thus, a pilot study (James-Tanner & Hunsley, 1993; presented in Appendix B) was conducted to ensure that the Adaptability and Cohesion subscales of the Marital Adaptability and Cohesion Evaluation Scale III (MACES III; Olson, Portner, & Lavee, 1985) were linearly related to marital functioning, as this has been an area of controversy in the literature. MACES III and the DAS (Spanier, 1976) were completed by 187 married expatriates stationed in Nepal. Polynomial trend analyses were conducted with the sample as a whole, and then for men and women separately. The results confirmed that there is a linear relationship between marital adjustment and Adaptability and Cohesion with this sample.

The results of the pilot study also provided other valuable information. First, the separate analyses of the men's and women's data showed a similar pattern of results. Also, the results suggested that adaptability and cohesion may be potential resources for adjustment.

Thus, based on the pilot study and the literature review, it was hypothesized that when tested simultaneously, there would be a direct relation between pile-up of demands and satisfaction and that coherence, personal resources, couple resources, and social support would mediate that relation. Secondly, a gender analysis was conducted to investigate the uniformity of the men's and

women's responses. Based on the findings of the pilot study, it was hypothesized that there would not be a significant difference between the two groups. Similarly, as there is no empirical evidence to support discrepancies in the responses of relocation initiators and trailing spouses, it was hypothesized that there would not be a discrepancy in the responses of these two groups.

Regarding the factor analytic techniques, it was hypothesized that the measurement model would prove to be suitable, as the best measures available were used to generate the model. Also, it was hypothesized that there would be a good fit between the data and the proposed model. Lastly, it was decided that if there was not a good fit between the data and the proposed model, an alternate model would be generated and tested.

Method

Participants

According to Tabachnick and Fidell (1989), causal models require a minimum of 5 participants for each observed variable. There are 20 observed variables, thus a minimum of 100 participants was required. Two hundred and five participants provided data, thus yielding a sufficient sample for the analysis. The participants were expatriates stationed in Nepal who were recruited through their work. In order to participate in the study, couples had to have (a) cohabited for at least 6 months, which is likely to provide sufficient time for family

patterns to develop, and (b) lived in Nepal for at least one year (the time required for the dissipation of stress specific to immediate relocation problems). An analysis of the demographic data of the pilot study indicated that the expatriates tend to live in Nepal a long time, with over 35% staying longer than 5 years and over 10% longer than 10 years. In addition, participants must not have lived in Nepal in their childhood, be affiliated with the military, or have been apart from their partner longer than three months.

The initial sample consisted of 245 participants. After data screening, however, the final sample consisted of 100 men and 105 women who were stationed in Nepal by aid agencies (57%), embassies (5%), mission organizations (28%), and corporations (10%). They represented various nations, including mainly the United States, Canada, Australia, and several European countries.

All participants were currently married or living in heterosexual common-law relationships and were currently residing with their partners. The mean number of years the couple had been together was 14.4 (SD=10.3), ranging from 1 to 43 years. Couples had lived in Nepal at least one year (M=4.7; SD=1.2, range 1-10 years) and on average had lived in two or three countries with their partners (M=2.8; SD=1.4). The ages ranged from 24 to 71 years, (M=40.7; SD=9.8) and couples had an average of 2.0 (SD=1.4) children. Lastly, the combined earning of the participants and their partners ranged from under $5,000 per

year, for participants with volunteer organizations, to over $50,000 per year for some aid and embassy staff. Further information about the participants can be seen in the "participant profile" in Appendix E.

Measures

Sixteen measures (presented in Appendix B and Table 1) were used to study the relation among the model's seven latent variables.

1. Pile-up of Demands (aA Factor) was measured by two scales designed to assess the severity of demands experienced daily.

a) Hassles Scale. Daily hassles were measured using the revised version of the Hassles Scale (Delongis, 1985). The 53-item revised version is based on the original 117-item version used in previous research (Delongis, Coyne, Dakof, Folkman, & Lazarus, 1982). The inventory asks the respondent to rate how much of a hassle the items have been for the respondent in the past month. Items include sources of daily stress such as domestic, work, financial, and familial stress. The total hassles score is obtained by summing the ratings given to all of the items. The Hassles scale has demonstrated good test-retest reliability (.82 over a 4-week period) and validity (.31 to .85 correlation with The Daily Health Record; Delongis, Folkman, & Lazarus, 1988).

b) Perceived Stress Scale (PSS). The PSS (Cohen, Kamarck, & Mermelstein, 1983) is a 14-item instrument designed to measure

the amount to which a person perceives life situations to be stressful (i.e., overloading, unpredictable, and uncontrollable). Results of a factor analytic study suggest that the psychometric properties of the measure is strengthened with the deletion of 4 items (Cohen & Williamson, 1988). Thus the revised 10-item scale was used in the present study. Items include such statements as "In the last month, how often have you felt nervous or stressed?" and "In the last month, how often have you felt that you could not cope with all the things that you had to do?". The participants are asked to rate how frequently the item applies on a scale that ranges from 0 (never) to 4 (very often). The total score is calculated by summing the items.

The reliability coefficient (alpha) for the PSS10 was .78 (Cohen & Williamson, 1988). The test-retest reliability of the PSS10 has not yet been established but results of studies using the PSS14 demonstrate good test-retest reliability (.88 over a 2-day period and .55 over a 6-week period). Lastly, construct validity of the measure was established when the authors found significant correlations between the PSS14 and Life-Events scores and depressive and physical symptomatology questionnaires (Cohen et al., 1983).

2. Family/Couple Resources (bB Factor) included three resources that the couple possess to facilitate adaptation; adaptability, cohesion, and communication. Adaptability and cohesion are measured by the Marital Adaptability and Cohesion

Evaluation Scale III (MACES III; Olson et al., 1985) and communication is measured by the ENRICH marital inventory (Olson, Fournier, & Druckman, 1983).

a) Marital Adaptability and Cohesion Evaluation Scale III (MACES III). MACES III (Olson et al., 1985) is a 20-item self-report measure designed to measure the degree of couple Adaptability and Cohesion. Cohesion measures the degree to which couples are connected to each other, and includes such constructs as emotional bonding, boundaries, and supportiveness. The Adaptability subscale, on the other hand, measures the degree to which the relationship is flexible and includes questions on leadership, roles and rules (Olson et al., 1985).

Both the Adaptability and Cohesion subscales use a 5-point Likert-type scale. For each of the 20 items, the participant provides a frequency rating, ranging from 1 (almost never) to 5 (almost always). Scores are calculated by summing the 10 Cohesion items and the 10 Adaptability items separately.

Recent psychometric evaluation of the measure (Olson, 1993) reveals an internal reliability (Cronbach's Alpha) coefficient of .82 for Cohesion and .78 for Adaptability. The test-retest reliability of the cohesion and adaptability subscales were .83 and .80, respectively. Research has repeatedly demonstrated the validity of the MACES (e.g., Olson, 1986; Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1985). A number of studies have demonstrated that scores on the instrument could be used to

discriminate between functional and dysfunctional families among high risk families (Garbarino, Sebes, & Schellenbach, 1985) or families which have a member who is an alcoholic (Olson & Killorin, 1984) or a juvenile delinquent (Roderick, Henggeler, & Hanson, 1986). Additionally, a factor analytic study supported the two factor structure (Olson, Russell, & Sprenkle, 1979). Construct validity was also demonstrated in the Germany relocation study (Lavee et al., 1985) when the two subscales loaded on Family System Resources.

b) ENRICH marital inventory. The communication subscale of the ENRICH (Olson et al., 1983) is designed to investigate the participants' feelings and attitudes toward communication in their relationship. The 10-item self-report questionnaire asks respondents to rate the extent to which they agree with statements about giving and receiving emotional and cognitive information in their relationship. Items are rated on a 7-point Likert-type scale (ranging from do not agree '1' to strongly agree '7') and include such statements as "It is very easy for me to express all my true feelings to my partner" and "My partner is always a good listener". The subscale has a test-retest reliability of .90 and the internal consistency (Cronbach's alpha) is .82 (Fowers & Olson, 1989). The measure has been shown to discriminate between happily and unhappily married couples and factor analysis has generally supported the factor structure of the measure (Fowers & Olson, 1989). Lastly, the communication

subscale significantly correlated with the Locke-Wallace Marital Adjustment Scale (Fowers & Olson, 1989).

3. Personal Resources (bB Factor) includes resources that the individual possesses to cope with living in a foreign country such as an internal Locus of Control and Self-Esteem.

a) Locus of Control. Locus of Control was measured with the General Domain subscale of the Multidimensional Measure of Children's Perceptions of Control (MMCPC; Connell, 1985). Although the scale was originally designed for use with children, the subscale has been altered for use with adults to investigate the respondents' perceptions of their control over what happens in their lives (Pelletier, Vallerand, Blais, Briere, & Green-Demers, 1995).

Eight items (Internal control and Powerful others control subscales) from the General Domain scale were used in the present study. The items include such statements as "I can pretty much control what will happen in my life" and "When I am unsuccessful, it is usually my own fault". Respondents evaluate the items on a 7-point Likert-type scale ranging from "Not at all true" (1) to "Very true" (7). The internal reliability of the scale is .79 (Pelletier et al., 1995). Construct validity of the measure was supported when Pelletier and his colleagues (1995) found that the items all loaded on one factor Perception of Control and that the scale significantly correlated with measures of intrinsic motivation.

b) Self-Esteem Inventory. The Self-Esteem Inventory (Rosenberg, 1965) was used to measure self-esteem. The inventory has 10 items that assess participants' feelings about themselves. Items are rated on a 7-point Likert scale (from "do not agree" to "strongly agree") and include such items as "I take a positive attitude toward myself" and "On the whole, I am satisfied with myself".

M. Young (1991) found that the internal consistency (Cronbach's Alpha) for the measure was .84 for recently relocated Canadians and .79 for established Canadians. The test-retest reliability, was .85 and .43 over a 2-week (Sibler & Tippet, 1965) and a 4-year period (Pearlin, Lieberman, Menaghan, & Mullan, 1981), respectively. In addition, Robinson and Shaver (1973) found that the scale demonstrated good convergent validity with other measures of self-esteem (correlations ranged from .56 to .83) and additional construct validity evidence is available (Weiss, 1977; Weiss & Knight, 1980).

4. Social Support (bB Factor) is the perceived availability of potential social resources. The resources include appraisal support (advice and discussion), belonging support (identification with a social network), and tangible support (material aid). All of these variables are measured by subscales of the Interpersonal Support Evaluation List (ISEL; Cohen, Mermelstein, Kamarck, & Hoberman, 1985). Factor analytic procedures have confirmed the factor structure of the ISEL and

found that all of the subscales load onto a higher-order latent factor of global social support (Brookings & Bolton, 1988). In addition, the ISEL has demonstrated good convergent validity (.46 correlation with the Inventory of Socially Supportive Behaviours; Cohen et al., 1985). The fourth subscale of the ISEL, self-esteem support, was not included because of its high correlation (.74) with the Rosenberg Self-esteem Inventory and its low internal reliability (Cohen et al., 1985).

a) Appraisal Support. Appraisal support is a 10-item subscale designed to measure the extent to which participants perceive that there is someone available to talk with them about their problems. The respondents are asked to indicate whether statements pertaining the availability of advice and feedback from others are "probably true" or "probably false". The internal reliability of this measure is .70-.82 and the test-retest reliability is .87, over a one-month interval (Cohen et al., 1985).

b) Belonging Support. Appraisal support is a subscale used to measure the individual's perception of the availability of others with whom the participant can associate. Statements about dining out and taking a trip with a friend are included. The format of the 10-item subscale is forced-choice, with the respondent rating each statement as "probably true" or "probably false". The internal reliability of this measure is .73-.78 and the test-retest reliability is .82, over a one-month interval

(Cohen et al., 1985).

c) Tangible Support. The tangible support subscale is a 10-item scale designed to measure the extent to which the participant perceives that instrumental aid would be available if needed. Items ask about the availability of others to lend assistance (e.g., offering car rides, lending money, etc.) in times of need. The respondents are asked to indicate whether the statements are "probably true" or "probably false". The internal reliability of this measure is .73-.81 and the test-retest reliability is .80, over a one-month interval (Cohen et al., 1985).

5. Coherence (cC Factor) is the appraisal of the family's situation. It includes the degree to which participants have confidence that their families can overcome their difficulties and the degree to which they feel committed to the overseas life-style.

a) Family Crisis Oriented Personal Evaluation Scales (F-COPES). The Reframing subscale of F-COPES (McCubbin, Larsen, & Olson, 1981) was used to measure the degree to which the participants have a sense of confidence that their family can cope with unexpected events. It also measures a family's perceptual orientation toward stressful experiences by assessing the degree to which family members view change as positive. For instance, items include, "Knowing we have the strength within our own family to solve our problems" and "Accepting stressful events

as a fact of life". Responses are given on a Likert-type scale of 1 ("strongly disagree") through 5 ("strongly agree"). The internal reliability of the subscale is .82 and the test-retest reliability is .61, over a 4-week period.

In a study by Lavee et al. (1987) the confidence and acceptance subscales of the F-COPES loaded onto the Coherence factor supporting their construct validity (Lavee, McCubbin, & Olson, 1987). Additionally, F-COPES has good factorial (McCubbin et al., 1985) and concurrent validity (McCubbin & Thompson, 1991).

b) Family Index of Coherence. The family's commitment to an overseas lifestyle was measured by the Family Index of Coherence (FIC; McCubbin et al., 1983). Only the items relevant to sojourner workers and their families were used. Thus, an abbreviated version of the predictability/controllability subscale (6 items) and the organization-family fit subscales (5 items) were relevant to the sample and were used. The predictability/controllability subscale measures the extent to which the participant feels that the future of the family is predictable in terms of work/family schedules and future assignments. The organization-family fit subscale investigates whether the family members feel that their family fits with demands of the overseas lifestyle.

The internal reliability of this abridged version of the FIC had not been calculated and, thus, the alpha coefficient was

calculated for this sample (.76). Additionally, a factor analytic study revealed that all of the subscales of the FIC loaded onto a Coherence factor (Lavee, McCubbin, & Patterson, 1985) providing support for the construct validity of that measure. Furthermore, McCubbin (1991) reported a significant validity coefficient of .44, .40, and .39 (correlation with the criterion of family well-being) for the organization-family fit, predictability, and controllability subscales.

6. Satisfaction (xX Factor) was measured by investigating the participant's satisfaction with three domains: personal, marital and contextual.

a) Satisfaction with Life Scale (SWLS). The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to measure the participants' general satisfaction with life in Nepal. The scale was modified slightly by asking the participants to evaluate their life in Nepal rather than life in general. For instance, items include such statements as "In most ways my life in Nepal is close to my ideal" and "The conditions of my life in Nepal are excellent". The respondent is asked to rate 5 statements on a 7-point Likert type scale ranging from "Do not agree" (1) to "Strongly agree" (7).

As the measure was revised slightly, the internal consistency of the modified scale was calculated (.84). The original version of the SWLS has demonstrated good psychometric properties with a test-retest coefficient alpha of .82 over a 2-

month period and internal consistency of .87 (Diener et al., 1985). Furthermore, convergent validity has been demonstrated repeatedly, with the SWLS correlating highly with a number of other measures of subjective well-being (Diener et al., 1985).

b) Dyadic Adjustment Scale. The Dyadic Adjustment Scale (Spanier, 1976) measures the perception of the quality of the relationship of married or cohabiting couples. The DAS has four subscales: dyadic satisfaction (10 items), cohesion (5 items), consensus (13 items) and affection (4 items). However, Kurdek (1992) suggested that the satisfaction subscale on its own (items 16 to 23, and items 31 and 32) could satisfactorily replace the full DAS without much information loss. This hypothesis was tested in a study of the psychometric properties of various short forms of the DAS (Hunsley, Pinsent, Lefebvre, James-Tanner, & Vito, 1995). The results indicated that the internal consistency (alpha coefficient) of the subscale was .82 and the subscale correlated .77 with the Kansas Marital Satisfaction Scale, another measure of relationship satisfaction. Thus, the subscale has demonstrated psychometric properties and was used in this study. Most of the items of the Satisfaction subscale have either a 5 or 6 point Likert-type scale. Participants are asked to rate their satisfaction with the relationship and how often the couple quarrels, considers separation, or confides in each other.

c) Post Satisfaction. Post satisfaction was assessed by a

modified version of a sojourner adjustment questionnaire that consists of two subscales: interaction and general conditions (Black & Stephens, 1989). The original questionnaire asks "how adjusted" the expatriate feels about various items whereas the modified version asks "how satisfied" they are with those items. The 4-item Interaction subscale was designed to determine the sojourner's satisfaction with interacting with host nationals on a formal and social level. The reliability alpha coefficient of this subscale is .89 (Black & Stephens, 1989).

The General Conditions subscale measures the respondent's satisfaction with the living conditions in the host country. The sojourner rates how satisfied he or she feels on 7 dimensions of the host culture, including the general living conditions, housing conditions, the food, shopping, recreation and health care facilities, and the cost of living. The internal reliability of this subscale is .82 (Black & Stephens, 1989). As the measure was altered slightly the internal consistency (alpha coefficient) was calculated using the expatriate sample and found to be .80.

Researchers have repeatedly demonstrated the construct validity of this measure. For instance, the two subscales were significantly correlated with culture-related training (-.26) and culture novelty (.21; Black & Gregersen, 1991) and the Interaction subscale was significantly correlated (.49) with a measure of the amount of support from host nationals (Black &

Gregersen, 1991). Lastly, a factor analytic study (Black & Stephens, 1989) confirmed the factor structure of the questionnaire.

7. The Determinants were measured by demographics questions that recorded the number of years that the respondent had lived in the Third World and in Nepal, the number of moves that the couple had made together, and the extent to which the move was voluntary (voluntariness scale). The score of the voluntariness scale is calculated by summing the first two questions of the measure. The internal consistency for this sample was .81.

Procedure

First, approval for the study (presented in Appendix C) was granted by the Human Research Ethics Committee of the School of Psychology at the University of Ottawa. Second, questionnaire packages were distributed to potential expatriate participants through their respective organizations in Nepal. The directors of the various organizations were approached for permission to leave a questionnaire package in the mailboxes of their staff. The participants were asked not to consult with anyone while completing the questionnaires and they were also asked to mail the packages individually (pre-addressed, stamped envelopes were provided). The packages included the questionnaires in a random order and an information sheet (presented in Appendix D).

Due to the researcher's affiliation with the population being sampled, a signed consent form would not have been

appropriate. Rather, an information sheet was more suitable to ensure confidentiality. In addition, the participants did not place their names on the questionnaires so there was no record of the respondents' names. The questionnaires were numbered strictly to classify participants as couples and all data were pooled for statistical analysis. Although the demographic questionnaire asked for information on agency affiliation and place of residence, there were sufficient numbers of expatriates that participants' identities were not known to the researcher.

The information sheet informed the participants of the purpose of the project, the name and address of the investigator, and that they could discontinue the study at any time or leave questions blank. In addition, it stated that if participants felt distressed as a result of completing the questionnaires, they could call the investigator to ask questions and receive a list of local therapists.

To improve on the response rate in the pilot study, several measures were taken. First, the participants were recruited in the spring, before they departed for summer holidays. This also provided an accurate estimation of the response rate. Second, the questionnaires were only distributed to those who had indicated an interest to their employer. Lastly, two weeks after the packages were distributed, a notice was posted in participating offices reminding interested parties to return the questionnaires as soon as possible.

Results

Overview

First, an evaluation was conducted to investigate the assumptions of normality, linearity, homoscedasticity, multicollinearity and homogeneity of variance matrices. EQS (EQS; Bentler & Wu, 1995) was used for these procedures and for calculating univariate statics and LISREL (LISREL VII; Joreskog & Sorbom, 1989) was used for conducting factor analytic procedures.[1]

Second, a confirmatory factor analysis (CFA) was conducted (LISREL VII; Joreskog & Sorbom, 1989). The goal of the CFA was to determine the goodness of fit of the sample data with the hypothesized model. The fit was assessed by examining the substantive meaningfulness of the model, statistical criteria (e.g., amount of variances and covariances jointly explained by the model), and practical criteria (e.g., the percentage of covariance explained by the model) (Byrne, 1989; Joreskog & Sorbom, 1989).

A seven-factor confirmatory factor analysis was conducted to ensure that the various scales loaded on the latent constructs that they were assumed to represent. The following hypotheses were tested: (a) Daily Hassles and Perceived Stress would load onto the Pile-up of Demands factor; (b) Adaptability, Cohesion, and Communication would load onto Couple Resources; (c) Locus of Control and Self-esteem would load onto the Personal Resources

factor; (d) Tangible, Belonging and Appraisal Support would load onto the Social Support (bB) factor; (e) Predictability/Fit, and Confidence and Acceptance would load onto the Coherence (cC) factor; (f) Personal, Relationship, and Post Satisfaction would load onto the Satisfaction (xX) factor; and g) Moves (number of years in a third world country/and in Nepal, and number of moves as a couple), and the degree to which the move was voluntary, would load onto the Determinants factor.

Third, structural equation modeling procedures (LISREL VII; Joreskog & Sorbom, 1989) were used to test the causal model presented in Figure 2. Based on the Double ABCX model (McCubbin & Patterson, 1982), a direct path from Pile-up of Demands to Satisfaction was hypothesized as well as a number of indirect links: a) Pile-up of Demands impacts on Coherence and in turn on Satisfaction; b) Pile-up of Demands impacts on Couple Resources and in turn on Satisfaction; c) Pile-up of Demands impacts on Personal Resources and in turn on Satisfaction; d) Pile-up of Demands impacts on Social Support and in turn on Satisfaction. In addition, the determinants factor consisting of exogenous variables was hypothesized to impact on Pile-up of Demands and Satisfaction.

It was hypothesized that the path coefficients between Determinants and Pile-up of Demands, and Pile-up of Demands and Coherence, Couple Resources, Personal Resources and Social Support would all be negative. The coefficients between

Coherence, Couple Resources, Personal Resources, Social Support, and Determinants and Satisfaction were hypothesized to be positive.

Lastly, ANOVAs were conducted to investigate the uniformity of the responses of the men versus the women and the trailing versus the non-trailing spouses. It was hypothesized that there would not be a significant difference between either of the two comparison groups.

Preliminary Data Analyses

Using EQS (Bentler & Wu, 1995) program, various statistical techniques were used to examine the accuracy of data entry, missing values, and whether the assumptions of multivariate analyses were met for all of the items in the questionnaire package.

Missing data. The variables were investigated to ensure that all participants had marked an answer within the acceptable range. For the 15 cases with less than 10% of the data missing, the missing values were replaced with the sample mean response for that variable. Twenty cases were missing greater than 10% of the responses and were, therefore, eliminated from the analyses.

Outliers. The data were then investigated for univariate and multivariate outliers. To detect univariate outliers, casewise plots of standardized residuals were inspected. Ten of the cases had residuals greater than $z=3.0$ and, subsequently, were eliminated from the analyses. Multivariate outliers can

also be identified using the EQS program. Ten outliers were identified and eliminated from the analyses. Therefore, after the preliminary analyses 40 cases were deleted which resulted in a sample size of 205 participants. As can be seen in the participant profile in Appendix E, the cases that were omitted did not differ significantly from the cases included in the analyses on demographic variables, or stress or satisfaction measures.

Linearity. To ensure that the relationship between the variables was linear, pairwise scatterplots were investigated. With 19 variables, thousands of plots are produced; thus, several plots were randomly selected for inspection. The inspection did not reveal any pairs that violated the assumption of linearity.

Normality. The assumption of normality was also tested. The variable mean univariate skewness and kurtosis values were found to be within the range of -1.0 to +1.0, indicating that the data approximated a normal distribution (cf. Muthen & Kaplan, 1985). The values for kurtosis ranged from -1.209 to 2.544 (M=.075), whereas the skewness values ranged from -0.175 to 1.521 (M=.6539).

Multicollinearity and Singularity. Multicollinearity and singularity can lead to unstable, non-invertible matrices. To ensure that these assumptions were not being violated, the squared multiple correlations (SMCs) and the determinants of R were examined (Tabachnick & Fidell, 1989). Upon inspection of

the SMCs for each variable (i.e., where each variable acts as the dependent variable and the other variables as independent variables), the results indicated that none of the values approached one, the highest value being .61 for Cohesion. Also, an examination of the determinants of R revealed that none of the values approached zero.

Factorability of R. An examination of the correlation matrix of the variables revealed that many of the values exceeded .30 (Tabachnick & Fidell, 1989). Thus, it is assumed that the matrix is factorable.

Data Analysis

Overview. The means, standard deviations, ranges, and alpha coefficients for all instruments were calculated and are presented in Table 1. The variable means were similar to those expected for participants residing in North America. Additionally, the range was not restricted for any of the measures, indicating a broad spectrum of participant responses for each variable. Lastly, a correlation matrix of all of the variables is presented in Table 2.

Insert Tables 1 and 2 about here

Data analysis proceeded in four stages. First, using LISREL a confirmatory factor analysis was conducted to determine if the proposed 7-factor measurement model was valid. Based on those

results, the hypothesized structural model was tested using LISREL. As there was a less than optimal fit for the hypothesized model, the third stage involved conducting a sensitivity analysis in an exploratory fashion to determine the cause of model misfit. Lastly, EQS was used to determine whether there were gender differences on the variables.

Confirmatory Factor Analysis (CFA). The CFA model is proposed *a priori* based on theory and research (Byrne, 1989). The intent of the CFA is to determine the goodness of fit of the sample data with the hypothesized measurement model. Researchers (Bollen, 1989; Joreskog, 1982) suggest that multiple criteria be utilized to assess the fit of models, including theoretical, statistical (e.g., amount of variances/covariances explained by the model), and practical (e.g., percentage of covariance explained by the model) considerations. As an indication of the global assessment model fit, the following indices were examined: (a) the goodness of fit index (GFI; Byrne, Shavelson, & Muthen, 1989), (b) the Bentler (1990) revised normed comparative fit index, and (c) the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973). The GFI indicates the amount of variances and covariances jointly explained by the model; a value close to 1.00 indicates a good fit (Byrne, 1989). Similarly, for the CFI and TLI, values $\geq$ .90 suggest adequate fit (Bentler, 1990; Bentler & Bonnet, 1980). Lastly, it should be noted that the covariance matrices were used for all of the procedures. When the above indices indicated the

fit between the hypothesized measurement model and the data was not adequate, the sources of misfit were identified and the subsequent analyses became exploratory rather than confirmatory. Several criteria were utilized to determine sources of misfit within the model. First, the LISREL t-values (parameter estimates divided by their standard error) were examined to determine if the estimate differed significantly from zero (i.e., values > 1.96 were considered to be significant; Byrne, 1989). Second, the modification indices and standardized residuals were examined to ensure that they were within the expected range. Additionally, the worth of the individual parameters was also subjectively assessed by their substantive meaningfulness in the model. Finally, there was a significant correlation between Pile-up of Demands and Satisfaction. This then allows for the possibility that there may be variables that mediate that relation.

Causal Modeling. Once the measurement model was established, a structural model (that incorporated those findings) was tested. The same process used for the CFA (explained above) was used to determine the fit of the hypothesized model with the data. The only addition was that the paths between the latent variables were also investigated.

Confirmatory Factor Analysis

The hypothesized 7-factor structure of the model was tested using confirmatory factor analysis (Model 2, seen in Figure 3).

The results indicated that, although the overall indices of fit were quite good (presented in Table 3), two of the latent variables were poorly defined. The t-values for some of the indicators of the Determinants and the Coherence latent variables were not significant, suggesting that those indicators did not significantly load on that variable. In addition, neither of these variables correlated significantly with the other variables. Thus, as these factors were poorly defined and they were not related to the other variables leaving them in for subsequent analysis (e.g., the causal model) would be meaningless.[2] As Coherence had been defined in one of the Double ABCX model studies (Lavee et al., 1987) with Confidence and Acceptance as separate indicators, this version of the model was also tested. The factors still did not load significantly on the latent variable and the paths between Satisfaction and Stress were still not significant.

Insert Table 3 and Figure 3 about here

Thus, the Coherence and Determinants factors were removed from the hypothesized model and a 5-factor model was tested using a CFA. The fit was only fair and an examination of the reliability (R^2) of the indicators revealed that the reliability of Relationship Satisfaction was low (i.e., where all of the variables in the model are regressed onto Relationship

Satisfaction). An EFA was conducted to check the construct validity of the measure. The results revealed that Relationship Satisfaction actually loaded on three factors. Thus, the indicator was divided into three indicators (two comprised of 3 items and one with 4 items) and the CFA was reanalysed (Model 3, presented in Figure 4). The goodness-of-fit indices (presented in Table 3) indicated that the model had improved and that the fit was good enough to proceed (i.e., to test the structural model using causal modeling).

Figure 4 about here

Causal Modeling

Based on the results of the CFA, a new structural model (Model 4, Figure 5) was analyzed using structural equation modeling. Model 4 is different from the original hypothesized model in that the latent variables "Determinants" and "Coherence" have been removed from the model and the Relationship Satisfaction indicator has been divided into three indicators.

Insert Figure 5 about here

The coefficients of determination for Model 4 were good, indicating that the combination of the 22 indicators served to adequately measure the factors. The reliability of each of the

indicators with respect to its underlying latent construct (R^2) was also good. The goodness-of-fit indices (presented in Table 3) indicated that the fit could possibly be improved (GFI=.83, CFI=.75, and TLI=.69). Thus, sensitivity analyses were conducted in order to define the sources of misfit and test alternative models. Alternative models were formulated by relaxing the constraints of the model one parameter at a time using the modification indices to guide the process. The modification index is the expected drop in X^2 if the parameter is allowed to be freely estimated.

Researchers have found that for psychological constructs, particularly from the same measure, it is often necessary to allow for correlated errors to generate a well-fitting model (Byrne, et al., 1989). Although sensitivity analyses have been a subject of controversy, Byrne and her colleagues (1989) suggested that often the parameters added are due to nonrandom measurement error caused by method effects, such as item format, with subscales of the same measure.

In establishing the model, all three of the parameters added were error covariances from the same subscale, the DAS. The addition of each of these parameters resulted in a significant change in the X^2 value. The model at this point, Model 5, can be seen in Figure 6. Most of the indices demonstrated good fit as indicated by the GFI (.91) and the CFI (.87) although the TLI and CFI were not yet equal to .90. The coefficient of determination

was good and the SMCs for each variable representing R^2 satisfactorily measure their respective factors. All of the parameter estimates for the factor loadings, variances/covariances and error variances, were statistically significant ($t > 1.96$) and plausible. The parameter estimates for the path coefficients were also significant, except for one: The path leading from Couple Resources to Satisfaction was not significant.

Insert Figure 6 about here

Although the model fit quite well statistically, one of the hypothesized paths was missing. Thus, sensitivity analyses were continued to try to understand the missing link. Two plausible possibilities arose. One possibiliy, Model 6 (seen in Figure 7), was that Couple Resources was linked to another mediator because the literature suggests that the mediators are interdependent. Indeed there was a suggestion in the data of a significant path between Couple Resources and Social Support. Once this modification was made, the goodness-of-fit indices increased significantly and all of them represented a good fit (above .90, presented in Table 3). Thus, Couple Resources had an indirect effect on Satisfaction (i.e., a path led from Couple Resources to Social Support, which then affected Satisfaction). Similar to the direct effect, the magnitude of the indirect effect can be

tested for significance. The results for this test are presented in Table 4 and indicate that the indirect effect of Couple Resources on Satisfaction was significant (t=2.8).

Insert Table 4 and Figure 7 about here

The second model that was tested, Model 7, was based on the modification indices (and can be seen in Figure 8). The indices suggested that the limitation of the hypothesized model was that the path between Couple Resources and Satisfaction was in the wrong direction and the model would fit much better if the path was reversed. Once the path was reversed, all of the goodness-of-fit indices (presented in Table 3) improved significantly and all indicated a good fitting model (i.e., they were greater than .90). Thus, Models 7 and 8 are both acceptable on statistical grounds.

Insert Figure 8 about here

Gender Analysis

In order to compare men's and women's scores on every variable, 14 one-way ANOVAs were conducted. To account for the fact that 14 comparisons were being made, the p value was set to .004 in accordance with a Bonferroni correction (Pedhazur, 1982). None of the p values were significant (i.e., greater than .004)

as can be seen in Table 5.

Insert Table 5 about here

Trailing Spouse Analysis

Similar to the gender analysis, 14 one-way ANOVAS were conducted to determine if there was a difference between the relocation initiators and the trailing spouses on all of the variables. Using a Bonferonni correction (p=.004), none of the p values were significant (as can be seen in Table 6).

Insert Table 6 about here

Discussion

The relocation domain has not yet developed to a point where there are many theoretically grounded studies. To begin to address this issue a model of intercultural family relocation was designed and empirically tested using structural equation modeling. The model was based on an integration of the sojourner literature and a family stress model, the Double ABCX model. Although numerous variables in the model have previously been found to be significantly related (Bristol, 1987; McCubbin & Lavee, 1986; Orr, Cameron, & Day, 1991; Rankin, Haut, & Keefover, 1992), this is the first time that an integrative family

relocation model was tested in its entirety.

Measurement Model

Measures. For the most part the measures were robust and loaded only on the predicted factors. Even though in the Double ABCX model there is some overlap in the definition of the resources, this was not a difficulty with this model as cross-loadings between resources were not evident. Similarly, there were no cross-loadings with other factors that intuitively seem similar such as Perceived Stress and Satisfaction. There were a couple of factors, however, that were not robust (i.e., the measures did not load significantly on the predicted factors) and these factors, Coherence and Determinants, will be looked at in detail.

Coherence. Initially, the factor consisted of two indicators (Coherence and Confidence/Acceptance), one from each of the Double ABCX causal model studies (Lavee et al., 1985; Lavee et al., 1987). As the indicators did not significantly load on the Coherence factor, I tried a different way to define the construct. This time I replicated the indicators (Confidence and Acceptance as two indicators) used in the 1987 study by Lavee (Lavee et al., 1987) and in the 1991 investigation by Orr (Orr et al., 1991), but the factor still was not robust. Similar to findings of the study by Orr and his colleagues (1991), Coherence did not fulfil the hypothesized role. Thus, it seems that Coherence (at least as it was defined here) was not a very useful

construct for this sample. This finding is contrary to the results of the army family study by Lavee and his colleagues (1985) that found that, not only did the FIC scales load on the Coherence factor, but that it was significantly related to the Well-being factor.

A possible explanation for the discrepancy between the results of the two studies may be the difference in the samples. The Coherence indicator in the present study was based on the FIC scale, a measure designed for military personnel to rate their dedication to the organization and their level of confidence about their organization's ability to help with their family problems. Although the questionnaire was adapted for people working for non-military organizations, it is possible that dedication and trust in their organization is not as important for civilian personnel. Perhaps fostering dedication and trust is a mandate more central to the military than civilian organizations. Additionally, although the Confidence and Acceptance indicators had been used before, they had not been used with relocating families. Lastly, it should be noted that Coherence was the only variable included in the model that was strictly from the family literature and not also an important factor in the sojourner literature. Thus, it is not entirely surprising that this variable was not useful for discussing family stress within this population.

Perhaps a more meaningful definition of Coherence for

relocating families would be to look at how the family perceived their environment. Rather than focusing on the person's perceptions about how his or her organization would be supportive and accepting, perhaps it would be more meaningful to investigate people's perceptions about the acceptance and support of their host country. Also, framing the Confidence/Acceptance indicator in a manner more specific for relocators might provide a construct that is more useful. For instance, one could measure how confident the family feels that their family can overcome contextual difficulties, such as family members acculturating at different rates (especially the difference between adults and children) or the lack of acceptance/support by the host culture. This factor would be particularly important for expatriate families living in countries where they are faced with discrimination and racism.

Determinants. Besides Coherence, the Determinants factor also was not robust. The main reason for including the Determinants variable was to investigate whether there were exogenous variables influencing the model. This factor did not significantly relate to the other variables, which lends further support to the importance of the mediators that were significant (i.e., by suggesting that the findings were not due to exogenous variables). However, two of the indicators did not load on the Determinants factor, indicating that the factor was poorly defined. Thus, to ensure that the poor correlation between the

Determinants factor and the other factors was not merely because the factor was poorly defined, the correlation matrix was examined. The examination indicated that none of the Determinants' indicators (Years in Nepal, Countries as a Couple, Years as a Couple, and Voluntariness of the Relocation) was highly correlated with the other variables. This finding lends further support to the notion that the exogenous variables did not play a significant role in this model.

Most likely, the Determinants factor was poorly defined because a coherent theory was not available to help guide the selection of the indicators for that variable. Unlike with the other factors, there was no prior research that included the Determinants factor and the theory is very vague about the nature and role of the determinants. Future research would still benefit from including determinants, not just to rule out possible outside influences, but to systematically study these variables so that the theory can be refined. Rather than selecting unrelated variables researchers need to select variables from only one theoretical paradigm. For instance, selecting only related family variables [number of children, number of years married, location of children (home or at boarding school), and stage of the family life cycle] to measure Determinants would be a more useful test of the construct.

Test of the Model

Structural equation modeling has been shown to be a useful manner to validate theoretical models (Byrne, 1989). As SEM provided a means to investigate several factors simultaneously, it appeared to be a good method for studying the complexities of a family system. Also, the variables investigated were complex; one variable alone could not adequately represent the construct. Thus, SEM was useful as it allowed multiple indicators representing different systems (i.e., individual, familial and contextual) to represent one construct.

The Effects of Personal Resources, Social Support and Couple Resources. The hypothesized model (Model 1), based on the Double ABCX model, was partially supported. The model proposed that coherence, resources (including personal and couple resources), and social support would mediate the stress-satisfaction relation. As previously mentioned the Coherence variable was not robust and, therefore, its ability to mediate the stress-satisfaction relation could not be evaluated. Even with this omission, social support and personal resources did mediate the stress-satisfaction relation. Additionally, it was surprising to discover that Couple Resources played an indirect rather than a direct role in the mediation of this relation.

Personal Resources. Unlike Coherence and Couple Resources, two of the variables, Personal Resources and Social Support, did play the role originally hypothesized; they mediated the Stress-

Satisfaction relation. This is a very important finding as this is the first time that either of those factors have been investigated as mediators. It has always been assumed that they play an important role but their role as mediators has never been confirmed.

These results highlight the importance of introducing different systems into the family models instead of only looking at the family system. For instance, personal resources, an individual systems variable, are often neglected in family models. Although McCubbin and Patterson (1982) proposed that personal resources were important for family adjustment, family researchers often disregard them and only test the family resources.

The finding that Personal Resources play an important role in the stress-satisfaction relation is consistent with the sojourner literature. Ward and Kennedy (1992) found that an internal LOC was important for expatriates adjusting to a society where externality is more common (Singapore). The results of this study are also consistent with the work that has been done with immigrants from China (Berry & Kim, 1988), Taiwan (Berry & Kim, 1988), India (Dyal et al., 1987) and El Salvador (M. Young, 1991).

When considering the two resources, it seemed that Self-Esteem was more related to the Satisfaction variables than was Locus of Control (as indicated by the correlation matrix

presented in Table 2). Perhaps the importance of an internal LOC was reduced because the society was one that is extremely fatalistic and, thus, very externally oriented. Perhaps this variable would have played a more important role if these expatriates were living in a country that was not as extremely externally oriented, such as Singapore. Self-esteem, on the other hand, was strongly related to the Satisfaction variables (as seen in the correlation matrix). This is consistent with M. Young's (1991) findings that self-esteem was directly related to life satisfaction, quality of life, and psychological distress and moderated the relation between stress and adjustment. Similarly, this finding is consistent with Padilla and colleagues (1988), who found self-esteem predicted anxiety and depression in Central American refugees.

The expatriate context is one in which the person continually renegotiates his or her construction of the world. Even the simplest things, like buying a loaf of bread or going to the doctor's office, become an adventure and one's usual *modus operandi* can suddenly become ineffectual. It is also an environment in which the expatriate needs to rely on others for crucial information such as where to buy safe food and water. Thus, if a person has low self-esteem and feels threatened by others, he or she will feel uncomfortable always needing to seek such advice.

Social Support. Besides Personal Resources, Social Support was also found to mediate the stress-satisfaction relation. This finding highlights the fact that couples do not exist in a vacuum and that the contextual system needs to be considered. An investigation of the relation between the three Social Support subscales and the Satisfaction subscales revealed that Belonging and Applicability were closely related to the Satisfaction indicators. The Tangible Support subscale, on the other hand, demonstrated the lowest correlations with the Satisfaction indicators. An examination of the expatriate context indicates that Tangible support (e.g., someone to look after their home, take them to the airport, and help with chores, etc.) is formalized in Nepal through the hiring of house staff. Most expatriates have at least one house staff and usually about three to take care of the type of support covered by this subscale. Thus, because of the universality and ease with which one receives tangible support, it is not surprising that it was not the best predictor of Satisfaction. On the other hand, the degree to which one feels connected to the community (which is measured by the Belonging subscale) varies greatly from person to person (and cannot be bought) and, thus, is an important predictor of Satisfaction. Similarly, an advice network (which is what the Applicability subscale taps) is very important for the expatriate, which would account for its high correlation with the Satisfaction subscales.

The finding that social support mediates the stress-satisfaction relation is a finding that is consistent with current research on social support. Researchers are discovering that social support plays an important role for a number of populations such as, inter alia, children (Cauce, Reid, Landesman, & Gonzales, 1990), the elderly (Rook, 1990), the disabled (Kaplan & Toshima, 1990), and care-givers (Konstantareas, 1991). The findings of the present study suggest that social support is important for sojourners as well, a claim supported by research conducted by McKain (1976) and M. Young (1991).

The results are also consistent with family stress literature which has found that social support plays an important role in adjustment. In one of their army relocation studies, McCubbin and Lavee (1986) found, using multiple regression analyses, that social support was a significant predictor of adjustment. When they assessed a causal model with the same data they tested the role of social support as a stress buffer as opposed to a mediator. Their results found a significant indirect effect for social support, a significant path from social support to coherence, and then to adjustment.

Couple Resources. The Couple Resources latent variable was significantly correlated with Satisfaction. This supports studies that have found that communication (Ammons et al., 1982; Lavee et al., 1985; Noda et al., 1990), adaptability (Ammons et

al., 1982; James & Hunsley, 1995; Lavee et al., 1985), and cohesion (Lavee et al., 1985; James & Hunsley, 1995; McCubbin & Lavee, 1986) are related to adjustment. As it has been assumed that, consistent with the Double ABCX model, couple resources mediate the stress-satisfaction relation, it was surprising that this assumption was not supported.

This finding was perplexing because, out of all of the latent variables tested in this study, couple resources have received the most attention in the literature. Couple Resources did demonstrate a significant role in the model, but not in the expected way. Once it was found that the hypothesized relationship was not supported, two exploratory models were tested.

New Models

The two exploratory models tested were models 6 and 7 presented in Figures 7 and 8, respectively. The two models are significantly different; in Model 6, Couple Resources were shown to be a stress-buffer and in Model 7, Couple Resources were demonstrated to be an end point, representing adaptation.

In model 7 (as seen in Figure 8), a significant path led from Couple Resources to Social Support, which then affected Satisfaction. This is called an indirect effect and, similar to the direct effect, can be tested for significance. In this case, the indirect effect of Couple Resources on Satisfaction was significant indicating that Couple Resources may play an indirect

role as opposed to a mediating role.

For this population, social support revolves around the couple. Because the expatriate community is very closed, husbands and wives often share the same group of friends. It is quite different from North America, where couples often have different social networks. This is probably related to the size of the expatriate community; even though the city of Kathmandu is large (about 3 million), the size of the expatriate community is quite small (about 6,000 people). In some ways the social structure of the community is more like that of a small, isolated town where most people know each other. Secondly, there are more couples in the community than one would find in a community of the same population in North America. This is because the age group with the largest proportion of single people (e.g., ages 17-24) is not well represented in this community because teenagers are often sent to their home country to do their final years of high school and college/university, and most of the jobs in the community require a college/university education, so expatriates often do not go overseas until that is completed. Thus, because the community is small and inter-connected and couples are overrepresented, most of the social activities revolve around the couple. Consequently, it is not uncommon for the expatriate to rarely go to a social event (outside of working hours) without his or her spouse. Therefore, it seems reasonable that couple resources and social support would be connected in

this community. As the couples' cohesion, adaptability and communication increases, they become increasingly comfortable making public appearances together and they begin to establish their social network. If the couple are having difficultly in their relationship and are not able to marshal their resources, they would feel less comfortable appearing in public and, consequently, their level of social support would also suffer.

The other model generated to examine the role of Couple Resources (Model 7, as seen in Figure 8) suggested that there is not a path from Couple Resources to Satisfaction, but rather the opposite, a path from Satisfaction to Couple Resources. Thus, Couple Resources does not mediate the stress-satisfaction relation but rather denotes an end point, an indication of couple adjustment. This model suggests that Satisfaction (with relationships, one's context and one's life in general) is an important mediator for family adjustment, as defined by cohesion, adaptability, and communication. It is possible that if people are generally unsatisfied it affects how much they can invest in their relationships. For instance, being dissatisfied with one's life could produce insecurities that would interfere with sharing one's self with a partner or being vulnerable in a relationship which could be detected by the Family Resource indicators. It is also easy to see how the Couple Resources indicators could, in fact, be indicators of adjustment. As people are feeling more adjusted and less stressed they would be more willing to

communicate with their partner (Communication), spend time with their partner (Cohesion), and be flexible (Adaptability). Thus, it is possible that Adaptability, Cohesion, and Communication are really indicators of adjustment rather than mediators of global satisfaction. Additionally, because the Double ABCX model is presumed to be systemic, it is then assumed that the end point (in this model Couple Resources) then leads to a decrease in stress. Thus, Couple Resources could still act as a mediator in Model 7 but not between stress and satisfaction as hypothesized.

This model challenges the way that we have traditionally conceptualized resources and adjustment. It is certainly possible that we have become wedded to the language about these two constructs in a way that has constricted our thinking about how they interact. A danger is that merely labelling a construct can reify its role even if it has not been verified empirically. For instance, even when McCubbin and Lavee (1986) tested these constructs with army families and found that couple resources did not predict adjustment for half of the sample, they did not challenge the validity of the model. Instead they said, "Surprisingly, the anticipated list of family strengths (Olson et al., 1983), such as cohesiveness and flexibility, did not emerge as being of paramount importance across all stages of the family life cycle. These findings do not necessarily contradict or even call into question these traditional assumptions or beliefs." (McCubbin & Lavee, 1986, p. 230). But perhaps we do need to

challenge these beliefs.

Model 7 is a model that is family systems centred and suggests that couple resources are an indicator of adjustment rather than a mediator of satisfaction. Although this model is consistent with the recursive nature of the Double ABCX model, it is contrary to previous research and would need to be explored in subsequent studies. Due to the lack of prior support for this model, the findings should not be embraced unquestioningly. Model 6, on the other hand, is more consistent with a multisystemic paradigm and previous research. In fact, the finding that personal resources and social support are important for satisfaction is consistent with both theory and research in the sojourner literature. Model 6 also takes into account a broader context, with an equal focus on many systems. Thus, of the two models, there is more extant support for Model 6.

Testing the Double ABCX Model

The results of this study partially support McCubbin's Double ABCX model. However, there are several factors that may have affected the results and, therefore, need to be considered. First, in this study, the adaptation (xX) factor was operationalized as Satisfaction. Although this is similar to McCubbin's operationalization of the xX factor as well-being, it is unclear how the results would be have been different if the xX factor had been related to the participant's level of functioning or adjustment instead of satisfaction. In addition, it was

required that participants had lived in Nepal for at least one year to be eligible to participate. Although this requirement ensured that participants had settled into their coping routines, there are a couple of drawbacks to using this time frame. First, it is possible that the expatriates who had difficulty adjusting gave up and returned to their home country before the first year of their posting and, consequently, the sample has an overrepresentation of people who are good copers. Secondly, it is possible that if the couples used a different coping strategy at the very beginning of their posting (i.e., before one year) this would not have been detected by this study. Lastly, although the statistical analyses indicated that treating the data as one group was justified, it does not rule out the possibility that there could have been subgroups with different coping patterns in this sample (e.g., men vs. women, trailers vs. initiators, newcomers vs. seasoned residents, and groups that differ based on their stage of the family life cycle). These hypotheses cannot be addressed in this study because the sample size is too small, however, these issues should be investigated in future research.

Advances in statistics now allow for causal paths to be tested simultaneously using causal modeling, an important tool for model development. However, as mentioned previously, the model is recursive and, therefore, cannot truly be tested in its entirety, even with causal modeling. Thus, it is important not

to have a false sense of hope that causal modeling can solve that difficulty.

A theoretical model needs to be clear and parsimonious and to reflect prior research so that it can be used as a heuristic to guide future research. The Double ABCX model appears to meet these criteria. However, with any model there are limits to its generalizability. The Double ABCX model was presented by McCubbin and Patterson (1982) as if there were no limits to its applicability. It is possible, however, that even though a generic model is appropriate, the relation between the factors may vary depending on the context. Thus, it is possible that the Double ABCX model is a good heuristic but that the interconnections between the factors are context specific, a caveat not delineated in the model. Consequently, it is difficult to know whether there is a problem with the model's overall validity or its generalizability . Future research will need to address this crucial question by testing the model with families in various contexts. Contexts that may influence the applicability of the model include the voluntary nature of the stress, the nature of the onset of the stress (acute versus chronic stressors), and the severity of the stress (life-threatening stressors versus daily hassles).

Gender and Trailing Spouse Analyses

Although some researchers have suggested that relocation adjustment is more difficult for women (Bayes 1989; Cooper 1981;

Seidenberg, 1973; Weissman & Paykel, 1972), the results of this study did not support that notion. Comparisons between men's and women's scores on every variable were made, but none produced a significant difference. This discrepancy with past research may exist because in this study, for the first time, the men's and women's scores were compared. Previously, only the women were investigated because it was assumed that it was more difficult for them rather than testing this hypothesis empirically.

As there were no significant differences on the men's and women's scores (and a test for invariance was not advisable given the sample size), model variance between the genders was not explored further. However, this does not mean that there are not differences and future research needs to include tests for gender invariance.

The results of the trailing spouse analysis were similar. On every variable, the scores of the initiators and trailing spouses were compared but none produced a significant difference. In the past, researchers have presumed that relocation was more difficult for trailing spouses without comparing their responses to those of relocation initiators (Bayes, 1989; Cooper, 1981; Morrison & Lichter, 1988; Shihadeh, 1991). The results of the gender and trailing spouse analyses highlight the importance of empirically testing assumptions rather than perpetuating untested presumptions.

Limitations and Future Research

The present study has limitations that should be addressed in future research. First, the hypothesized model was not validated and, thus, the *post hoc* exploratory models, Model 6 and 7, need to be verified with a different sample. Second, the most salient difficulty with the proposed model was that many factors were poorly defined and poorly measured. As this may account for the lack of support for the model, future research would benefit by focusing on developing and testing better measures before testing any model. Third, although the gender analysis did not show gender differences on most of the measures, future research should test the causal model for men and women separately, to ensure that the structural model is the same for both groups. Additionally, it would also be important to design and test models for men and women separately, based on their respective literatures, to be able to rule out the possibility of gender differences.

Longitudinal research is needed to confirm the results of this research. Although causal modeling allows longitudinally based models to be tested cross-sectionally, it is still important to test the model longitudinally to verify the results. As the family stress models are inherently recursive, it would be important to also test the model soon after participants arrived to help to understand the bidirectional nature of some of the paths (as suggested by Model 7). Also, because the time frames

of the measures overlap (some ask about the past week, others about the past month) a longitudinal study would help to tease apart the effects of the variables on each other (for instance, confirming that stressors effect trait variables such as personal resources) or investigating the moderating effects of trait variables. In addition, longitudinal research would allow researchers to investigate any changes in the model over time. It is possible that there are a number of different stages that the expatriate experiences and longitudinal research would allow identification of these stages (i.e., a life cycle) for families in transition.

It would be important to explore model 6 with a different population, such as immigrant families moving from a third world to a first world context. However, the constructs as defined in this study would probably be inappropriate for such a population. One would first need to conduct an ethnographic study to try to understand the family context of the other culture. This would probably expand our thinking about important variables for relocating families. Then, based on those findings one would want to explore how the constructs in this model would be defined in the context of the immigrant group. For instance, in many cultures somatization is often a clue to adjustment (Kleinman, 1988); therefore, investigating somatic symptoms would be more useful than administering a self-report questionnaire. In addition, personal resources are often meaningless in a

collective society; a person's role in the society or his or her ability to commune with nature, ancestors or god(s) would, thus, be more important to investigate than Western notions of personal resources (cf. Landrine, 1992). Thus, testing immigrant populations would be challenging but at the same time would expand our thinking on this topic.

Similarly, to further our knowledge about family stress, testing a version of the Double ABCX model using causal modeling with North American families confronting other types of stressors would be interesting. One could investigate families facing chronic stressors such as dual-career families or families where a member is chronically physically or mentally ill. In addition, one would also want to test the model with families who have suffered an acute crisis such as an accident or a fire, to determine whether the chronicity of the problem plays a role in the model used for coping.

Future research could also benefit from incorporating findings from other domains into family models. For instance, a strength of this study is that findings from the sojourner literature were incorporated into a family model. This then allowed for an investigation of the relative utility of the variables in the two domains and insights into how they interact, a question that has not heretofore been addressed. Similarly, as there is an extensive literature on social support, incorporating those findings into our investigation of family stress would

probably be enlightening.

Lastly, there is a tremendous need for explicitly theoretically driven research in the sojourner literature. Presently, theoretical models are few and far between and, therefore, it is difficult to synthesize the research. Additionally, it would be interesting to extend the present study to test the model with sojourners moving to other contexts or to do longitudinal studies as sojourners move from one country to another, observing how the model changes accordingly.

Practical Implications

The results of this study can be used to prepare expatriates for what they can expect overseas. Expatriates are often given pre-departure briefings which involve discussions about acculturation, health, safety, and resources (Hammer, 1992; Ptak, Cooper, & Brislin, 1995), but this forum could be expanded to include preparation for living overseas as a couple. This study suggests that social support is an extremely important resource for the couple and, therefore, the couple should be encouraged to become connected with the community. It also suggests that marital difficulties can hinder this resource and, therefore, it is particularly important that marital difficulties be addressed quickly. Instead marital difficulties are often dismissed in this environment as "just a cultural adjustment problem". A second item on the pre-departure briefing agenda that would be

helpful is to dispel the myth that women (usually the trailing spouses) do not adjust as well as men (usually the relocation initiators). This patronizing assumption is held in the expatriate community and it would be empowering for the women to learn that, although they do have numerous stressors to overcome, there is no evidence that their level of adjustment is any different than that of the men.

Having a well-defined and valid working model of family relocation strain is of paramount importance for clinicians working with this population. The results of this study indicate that it is helpful to take an expansive multi-systemic approach when working with such a population. Family therapists (Haley, 1976; Minuchin, Rosman, & Baker, 1978) have traditionally focused on intervening at the family systems level, tackling questions of, *inter alia*, alliances, boundaries, hierarchies, and communication. The results of this study suggest that it would be beneficial for therapists to expand their focus to also include working at the individual and contextual levels. For instance, a treatment goal could be an increase in a client's level of social support, self-esteem, sense of control, or satisfaction with his or her environment.

Thus, the importance of taking a multisystems approach in therapy is very important. As this is a difficult task, there are not many clear examples in the literature as to how that can be done. One model consistent with a multisystems approach is

Szapocznik and Kurtines' (1993) Bicultural Effectiveness Training. In their model, they propose that the individual is embedded in the context of the family which is in turn embedded in the cultural context and the therapist needs to work with all three levels. They also have conducted extensive research with immigrant populations and they incorporate their findings into their model of therapy. For instance, they found that children tend to acculturate faster than their parents and that males acculturate faster than females, so their model of therapy outlines ways to address issues raised by differential rates of acculturation (Szapocznik & Kurtines, 1993).

Conclusions

The results of the present study should compel us to reconsider the generalizability of the Double ABCX model and recognize the importance of empirical validation for theory building. Even though the Double ABCX model is one of the most popular models in family psychology, it was only partially supported by empirical investigation with the sojourner couples living in Nepal. This finding challenges presuppositions and traditional beliefs in this domain.

Another way to challenge traditional beliefs is to examine constructs through the perspectives of other research domains. The present study was enhanced by incorporating the sojourner literature into a family stress model. This type of cross-

fertilization with other domains is a rich resource that can greatly enhance the family psychology literature and can help prevent us from getting stuck in the impasse of traditionalism.

References

Ammons, P., Nelson, J., & Wodarski, J. (1982). Surviving corporate moves: Sources of stress and adaptation among corporate families. Family Relations, 31, 207-212.

Angell, R. C. (1936). The family encounters depression. New York: Charles Scribner's Sons.

Barling, J. (1990). Employment, stress and family functioning. New York: John Wiley & Sons.

Barrett, C. L., & Noble, H. (1973). Mothers' anxieties versus the effects of a long distance move on children. Journal of Marriage and the Family, 35, 181-188.

Bayes, M. (1989). The effects of relocation on the trailing spouse. Smith College Studies in Social Work, 59, 280-288.

Bentler, P. M. (1990). Multivariate analysis with latent variables: Causal modeling. Annual Review of Psychology, 31, 419-456.

Bentler, P. M. & Bonnet, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. Psychological Bulletin, 88, 588-606.

Bentler, P. M., & Wu, E. J. C. (1995). EQS for Windows User's Guide: Beta Release. Los Angeles: BMDP Statistical Software.

Berry, J. W. (1978). Acculturation and psychological adaptation: A conceptual overview. In J. W. Berry & R. C. Annis (Eds.), Ethnic Psychology: Research and practice with immigrants, refugees, native peoples, ethnic groups and sojourners (pp. 41-52). Berwyn, PA: Swets North America Inc.

Berry, J. W., & Kim, U. (1988). Acculturation and mental health. In P. Dasen, J. W. Berry, & N. Sartorius (Eds.), Health and cross-cultural psychology: Towards applications (pp. 207-238). London: Sage.

Berry, J. W., & Kostovcik, N. (1983). Psychological adaptation of Malaysian students in Canada. Paper presented at the Third Asian Regional Conference of the International Association for Cross-Cultural Psychology, Bangi, Malaysia.

Black, J. S., & Stephens, G. K. (1989). The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignments. Journal of Management, 15, 529-544.

Brett, J. M. (1980). The effect of job transfer on employees and their families. In C. L. Cooper & R. Payne (Eds.), Current concerns in occupational stress (pp. 99-136). New York: John Wiley & Sons.

Brett, J. M. (1982). Job transfer and well-being. Journal of Applied Psychology, 67, 450-463.

Bristol, M. (1987). Mothers of children with autism or communication disorders: Successful adaptation and the Double ABCX model. Journal of Autism and Developmental Disorders, 17, 469-486.

Brookings, J. B., & Bolton, B. (1988). Confirmatory factor analysis of the Interpersonal Support Evaluation List. American Journal of Community Psychology, 16, 137-147.

Butler, E. W., McAllister, R. J., & Kaiser, E. J. (1973). The effects of voluntary and involuntary residential mobility on females and males. Journal of Marriage and the Family, 35, 219-227.

Byrne, B. (1989). A primer of LISREL: Basic applications and programming for confirmatory factor analytic models. New York: Springer-Verlag.

Cauce, A. M., Reid, M. Landesman, S., & Gonzales, N. (1990). Social support in young children: Measurement, structure, and behavioral impact. In B. R. Sarason, I. G. Sarason, & G. Pierce (Eds.), Social support: An interactional view (pp. 64-94). New York: J. Wiley & Sons.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. N. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason (Eds.), Social support: Theory, research, and applications (pp. 73-94). Dordrecht, Netherlands: Martinus Nijohoff.

Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health (pp. 31-67). London: Sage Publications.

Connell, J. P. (1985). A new multidimensional measure of children's perceptions of control. Child Development, 56, 1018-1041.

Cook, W. L. (1994). A structural equation model of dyadic relationships within the family system. Journal of Consulting and Clinical Psychology, 62, 500-509.

Cooper, C. L. (1981). The stress check. New Jersey: Prentice-Hall, Inc.

Crossman, S. M., & Edmonson, J. E. (1985). Personal and family resources supportive of displaced homemakers' financial adjustment. Family Relations, 34, 465-474.

Delongis, A. (1985) The relationship of everyday stress to health and well-being: Inter- and intraindividual approaches. Doctoral Dissertation, University of California, Berkeley.

Delongis, A., Coyne, J. C., Dakof, G., Folkman, S., & Lazarus, R. S. (1982). Relationship of daily hassles, uplifts, and major life events to health status. Health Psychology, 1, 119-136.

Delongis, A., Folkman, S., & Lazarus, R. S. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. Journal of Personality and Social Psychology, 54, 486-495.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. Journal of Personality Assessment, 49, 71-74.

Dyal, J. A., Rybensky, L., & Somers, M. (1987). Marital and acculturative strain among Indo-Canadian and Euro-Canadian women. In J. W. Berry & R. C. Annis (Eds.), Ethnic Psychology: Research and practice with immigrants, refugees, native peoples, ethnic groups and sojourners (pp. 80-95). Berwyn, PA: Swets North America Inc.

Fowers, B. J., & Olson, D. H. (1989). ENRICH marital inventory: A discriminant validity and cross-validation assessment. Journal of Marital and Family Therapy, 15, 65-79.

Fried, M. (1963). Residential attachment: Sources of residential and community satisfaction. Journal of Social Issues, 38, 107-119.

Garbarino, J., Sebes, J., & Schellenbach, C. (1985). Families at risk for destructive parent-child relations in adolescence. Child Development, 55, 174-183.

Gaylord, M. (1979). Relocation and the corporate family: Unexplored issues. Social Work, 24, 186-191.

Glick, P. C. (1993). The impact of geographic mobility on individuals and families. In B. H. Settles, D. E. Hanks, & M. B. Sussman (Eds.), Families on the move: Migration, immigration, emigration, and mobility (pp. 31-54). New York: The Haworth Press, Inc.

Hale, D. & Hale C. (1987). On the far side of Ling Ling mountain. London: Hodder and Stoughton.

Haley, J. (1976). Problem-solving therapy. San Francisco: Jossey-Bass Publishers.

Hammer, M. R. (1992). Mission statements for international student advising offices. International Journal of Intercultural Relations, 16, 217-236.

Hartman, M., & Hartman, H. (1986). International migration and household conflict. Journal of Comparative Family Studies, 17, 131-138.

Hill, R. (1949). Families under stress. New York: Harper and Row.

Hill, R. (1965). Generic features of families under stress. In H. J. Parad (Ed.), Crisis Intervention: Selected Readings, (pp. 582-52). New York: Family Service Association of America.

Hunsley, J., Pinsent, C., Lefebvre, M., James-Tanner, S., & Vito, D. (1995). Construct validity of the short forms of the Dyadic Adjustment Scale. Family Relations, 44, 231-237.

Hunter, E. J. (1982). Families under the flag: A review of military family literature. New York: Praeger.

Hsiao-Ying, T. (1995). Sojourner adjustment: The case of foreigners in Japan. Journal of Cross-Cultural Psychology, 26, 523-526.

Inbar, M. (1977). Immigration and learning. Canadian Journal of Sociological Anthropology, 14, 218-234.

James, S., & Hunsley, J. (1995). The Marital Adaptability and Cohesion Evaluation Scale III: Is the relation with marital adjustment linear or curvilinear? Journal of Family Psychology, 9, 458-462.

James-Tanner, S., & Hunsley, J. (1993, August). Evaluation of the Circumplex Model with expatriate couples. Poster session presented at the annual meeting of the American Psychological Association, Toronto, ON.

Jones, S. B. (1973). Geographic mobility as seen by the wife and mother. Journal of Marriage and the Family, 35, 210-218.

Joreskog, K.G., & Sorbom, D. (1989). LISREL 7: A guide to the program and applications (2nd ed.). Chicago: SPSS Inc.

Kaplan, R. M., & Toshima, M. T. (1990). The functional effects of social relationships on chronic illnesses and disability. In B. R. Sarason, I. G. Sarason, & G. Pierce (Eds.), Social support: An interactional view (pp. 427-453). New York: J. Wiley & Sons.

Kim, U. (1984). Psychological acculturation of Korean immigrants in Toronto: A study of modes of acculturation, identity, language and acculturative stress. Unpublished master's thesis, Queen's University, Canada.

Kleinman, A. (1988). The illness narratives: suffering, healing and the human condition. New York: Basic Books Inc.

Konstantareas, M. M. (1991). Autistic, learning disabled and delayed children's impact on their parents. Canadian Journal of Behavioral Science, 23, 358-375.

Koos, E. L. (1946). Families in trouble. New York: King's Crown Press.

Kurdek, L. A. (1992). Dimensionality of the Dyadic Adjustment Scale: Evidence from heterosexual and homosexual couples. Journal of Family Psychology, 6, 22-35.

Landrine, H. (1992). Clinical implications of cultural differences: The referential versus the indexical self. Clinical Psychology Review, 12, 401-415.

Lavee, Y., McCubbin, H. I., & Olson, D. H. (1987). The effect of stressful life events and transitions on family functioning and well-being. Journal of Marriage and the Family, 49, 857-873.

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, 811-825.

Lin, K. H., Masuda, M., & Tazuma, L. (1982). Adaptation problems of Vietnamese refugees. Part III. Case studies in clinic and field: Adaptive and maladaptive. The Psychiatric Journal of the University of Ottawa, 7, 173-183.

Locke, H., & Wallace, K. (1959). Short marital adjustment and prediction tests: Their reliability and validity. Marriage and Family Living, 2, 251-255.

Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. International Social Science Bulletin, 5, 45-51.

Makowsky, P. P., Cook, A. S., Berger, P. S., & Powell, J. (1988). Women's perceived stress and well-being following voluntary and involuntary relocation. Lifestyles: Family and Economic Issues, 9, 111-122.

Marchant, K. H., & Medway, F. J. (1987). Adjustment and achievement associated with mobility in military families. Psychology in the Schools, 24, 289-294.

Marsh, R. M. (1976). Mobility in the military: Its effect upon the family system. In H. I. McCubbin, B. B. Dahl, & E. J. Hunter (Eds.), Families in the military system (pp. 92-111). London: Sage Publications.

Martin, J. (1987). The relationship between student sojourner perceptions of intercultural competence and previous sojourn experience. International Journal of Intercultural Relations, 11, 337-355.

McCoy, M. (1983). The experiences of expatriate wives in Hong Kong. Hong Kong: Centre of Asian Studies.

McCubbin, H. (1991). Family Index of Regenerativity and Adaptation - Military. In H. I. McCubbin & A. I. Thompson (Eds.), Family assessment inventories for research and practice (p.315-337). Madison, WI: University of Wisconsin.

McCubbin, H. I., Larsen, A. S., & Olson, D. H. (1982). F-COPES: Family coping strategies. In D. H. Olson, H. I. McCubbin, H. Barnes, A. S. Larsen, M. Muxen, & M. Wilson (Eds.), Family inventories (pp. 101-120). St. Paul, MN: University of Minnesota, Family Social Science.

McCubbin, H. I., & Lavee, Y. (1986). Strengthening army families: A family life cycle stage perspective. Evaluation and Program Planning, 9, 221-231.

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

McCubbin, H. I., Patterson, J. M., & Lavee, Y. (1983). One thousand army families: Strengths, coping and supports. St. Paul, MN: University of Minnesota, Family Social Science.

McCubbin, H. I., Patterson, J. M., & Wilson, L. (1981). FILE: Family Inventory of Life Events and Changes. St. Paul, MN: University of Minnesota, Family Social Science.

McKain, J. (1973). Relocation in the military: Alienation and family problems. Journal of Marriage and the Family, 35, 205-209.

McKain, J. L. (1976). Alienation: A function of geographic mobility. In H. I. McCubbin, B. B. Dahl, & E. J. Hunter (Eds.), Families in the military system (pp. 69-91). London: Sage Publications.

Melson, G. F. (1983). Family adaptation to environmental demands. In H. I. McCubbin, & C. R. Figley (Eds.), Stress and the family: Coping with normative transitions (pp. 149-162). New York: Brunner/Mazel Inc.

Mendenhall, M., & Oddou, G. (1985). The dimensions of expatriate acculturation: A review. Academy of Management Review, 10, 39-47.

Merton, R. K. (1957). Social theory and social structure. New York: The Free Press of Glencoe.

Miller, I. W., & Epstein, N. B. (1985). The McMaster Family Assessment Device: Reliability and validity. Journal of Marital and Family Therapy, 11, 345-356.

Minuchin, S., Rosman, B. L., & Baker, L. (Eds.). (1978). Psychosomatic families: Anorexia nervosa in context. Cambridge, MA: Harvard University Press.

Morrison, D. R., & Lichter, D. T. (1988). Family migration and female employment: The problem of underemployment among migrant married women. Journal of Marriage and the Family, 50, 161-172.

Munton, A. G. (1990). Job relocation, stress and the family. Journal of Organizational Behavior, 11, 401-406.

Muthen, B., & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. British Journal of Mathematical and Statistical Psychology, 38, 171-189.

Noda, N., Noda, M., & Clark, C. (1990). Factors affecting adjustment in Japanese migrant housewives. Canadian Journal of Psychiatry, 35, 689-692.

Olson, D. H. (1986). Circumplex Model VII: Validation studies and FACES III. Family Process, 25, 337-351.

Olson, D. H. (1993). Circumplex Model of marital and family systems: Assessing family functioning. In F. Walsh (Ed.), Normal family processes (2nd ed., pp. 104-137). New York: Guilford.

Olson, D. H., & Barnes, H. (1982). Quality of Life. In D. H. Olson, H. I. McCubbin, H. Barnes, A. S. Larsen, M. Muxen, & M. Wilson (Eds.), Family inventories (pp. 137-148). St. Paul, MN: University of Minnesota, Family Social Science.

Olson, D. H., Fournier, D. G., & Druckman, J. M. (1983). PREPARE/ENRICH Counsellor's Manual. Minneapolis, MN: PREPARE/ENRICH Inc.

Olson, D. H., & Killorin, E. (1984). Clinical rating scale for Circumplex Model. St. Paul, MN: Family Social Science.

Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxen, M., & Wilson, M. (1985). Family inventories (Revised ed.). St. Paul, MN: Family Social Science.

Olson, D. H., Portner, J., & Lavee, Y. (1985). FACES III. St. Paul, MN: Family Social Science.

Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1979). Circumplex model of marital and family systems II: Empirical studies and clinical intervention. In J. Vincent (Ed.), Advances in family interventions, assessment and theory (pp. 128-176). Greenwich, CT: JAI Press.

Orr, R. R., Cameron, S. J., & Day, D. M. (1991). Coping with stress in families with children who have mental retardation: An evaluation of the Double ABCX model. American Journal on Mental Retardation, 95, 444-450.

Padilla, A. M., Cervantes, R. C., Maldonado, M., & Garcia, R. E. (1988). Coping responses to psychosocial stressors among Mexican and Central American immigrants. Journal of Community Psychology, 16, 418-427.

Patridge, K. (1987). Acculturation attitudes and stress of westerners living in Japan. In J. W. Berry & R. C. Annis (Eds.), Ethnic Psychology: Research and practice with immigrants, refugees, native peoples, ethnic groups and sojourners (pp. 105-113). Berwyn, PA: Swets North America Inc.

Pearlin, L. L., Lieberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pedhazur, E. (1982). Multiple regression in behavioral research. New York: Holt, Rienhart and Winston.

Pelletier, L., Vallerand, R. J., Blais, M. R., Briere, N. M., & Green-Demers, I. (1995). Loisirs et sante mentale: Les relations entre la motivation pour la pratiqe des loisirs et le bien-etre psychologique. Canadian Journal of Behavioral Sciences, 27, 140-156.

Ptak, C. L., Cooper, J., & Brislin, R. (1995). Cross-cultural training programs: Advice and insights from experienced trainers. International Journal of Intercultural Relations, 19, 425-453.

Rankin, E. D., Haut, M. W., & Keefover, R. W. (1992). Clinical assessment of family caregivers in dementia. The Gerontologist, 32, 6, 813-821.

Roderick, J., Henggeler, S., & Hanson, C. L. (1986). An evaluation of the Family Adaptability and Cohesion Evaluation Scales (FACES) and the Circumplex Model. Journal of Abnormal Child Psychology, 14, 77-87.

Rohrlich, B. F. & Martin, J. N. (1991). Host country and reentry adjustment of student sojourners. International Journal of Intercultural Relations, 15, 163-182.

Rook, K. S. (1990). Social relationships as a source of companionship: Implications for older adults' psychological well-being. In B. R. Sarason, I. G. Sarason, & G. Pierce (Eds.), Social support: An interactional view (pp. 427-453). New York: J. Wiley & Sons.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs: Generalized and Applied, 80.

Seidenberg, R. (1973). Corporate wives - corporate casualties. New York: Amacom.

Selvig, P. (1987). Namaste. Copenhagen: Paul Selvig ApS.

Shaw, J. A., & Pangman, J. (1975). Geographic mobility and the military child. Military Medicine, 140, 413-416.

Shihadeh, E. S. (1991). The prevalence of husband-centred migration: Employment consequences for married mothers. Journal of Marriage and the Family, 53, 432-444.

Shisana, O., & Celentano, D. (1985). Depressive symptomatology among Namibian adolescent refugees. Social Science and Medicine, 21, 1251-1257.

Simoes, M., & Binder, J. (1980). A socio-psychiatric field study among Portuguese emigrants in Switzerland. Social Psychiatry, 15, 1-17.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

Srole, L. J. (1956). Anomie, authoritarianism and prejudice. American Journal of Sociology, 60, 63-67.

Stokols, D., & Shumaker, S. A. (1982). The psychological context of residential mobility and well-being. Journal of Social Issues, 38, 149-171.

Stringham, E. M. (1993). The reacculturation of missionary families: A dynamic theory. Journal of Psychology and Theology, 21, 66-73.

Syme, S. L., Hyman, M. M., & Enterline, P. E. (1965). Cultural mobility and the occurrence of coronary heart disease. Journal of Health and Human Behavior, 6, 178-189.

Szapocznik, J. & Kurtines, W. M. (1993) Family psychology and cultural diversity: Opportunities for theory, research, and application. American Psychologist, 48, 400-407.

Tabachnick, B. G., & Fidell, L. S. (1989). Using multivariate statistics (2nd ed.). New York: Harper & Row Publishers.

Thomas, W., & Znaniecki, F. (1927). The Polish peasant in Europe and America. New York: Knopf.

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. Psychometrika, 38, 1-10.

Tung, R. (1981). Selecting and training personnel for overseas assignments. Columbia Journal of World Business, 16, 68-78.

United Nations Development Programme (1992). Nepal: Cooperation for the future. New York: United Nations Press.

United Nations Development Programme (1993). The Human development report. New York: United Nations Press.

Walker, A. J. (1985). Reconceptualizing Family Stress. Journal of Marriage and the Family, 47, 827-837.

Wamboldt, F. S., Steinglass, P., Kaplan De-Nour, A. (1991). Coping within couples: Adjustment two years after forced geographic relocation. Family Process, 30, 347-361.

Ward, C., & Kennedy, A. (1992). Locus of control, mood disturbance, and social difficulty during cross-cultural transitions. International Journal of Intercultural Relations, 16, 175-194.

Weissman, M., & Paykel, E. (1972). Moving and depression in women. Social Science and Modern Society, 9, 24-28.

Wrubel, J., Benner, P., & Lazarus, R. (1981). Social competence from the perspective of stress and coping. In J. D. Wine & M. D. Smye (Eds.), Social competence (pp. 61-99). New York: Guilford.

Young, M. (1991). The adjustment of Salvadoran refugees: Stressors, resources and well-being. Unpublished doctoral dissertation, University of Western Ontario, Canada.

Young, P. (1932). The pilgrims of Russian-Town. Chicago: University of Chicago.

Footnotes

[1]EQS could not be used for the factor analytic techniques because of a difficulty with the software package. Thus, LISREL was used for conducting that portion of the analyses.

[2]To ensure that this hypothesis was correct, the model was tested with the Determinants and Coherence variables included. As expected there were no significant paths with "Stress" or "Satisfaction" for either variable.

Figure 1:

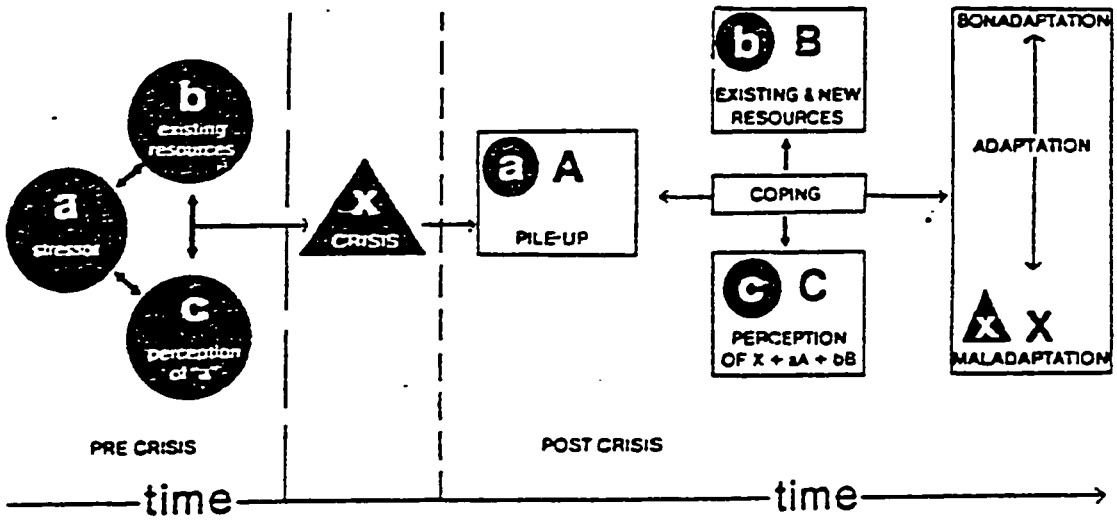

b
existing resources
a
stressor
c
perception of "x"
X
CRISIS
a A
PILE-UP
b B
EXISTING & NEW RESOURCES
COPING
c C
PERCEPTION OF X + aA + bB
BONADAPTATION
ADAPTATION
X X
MALADAPTATION
PRE CRISIS
POST CRISIS
time
time

Figure 2:

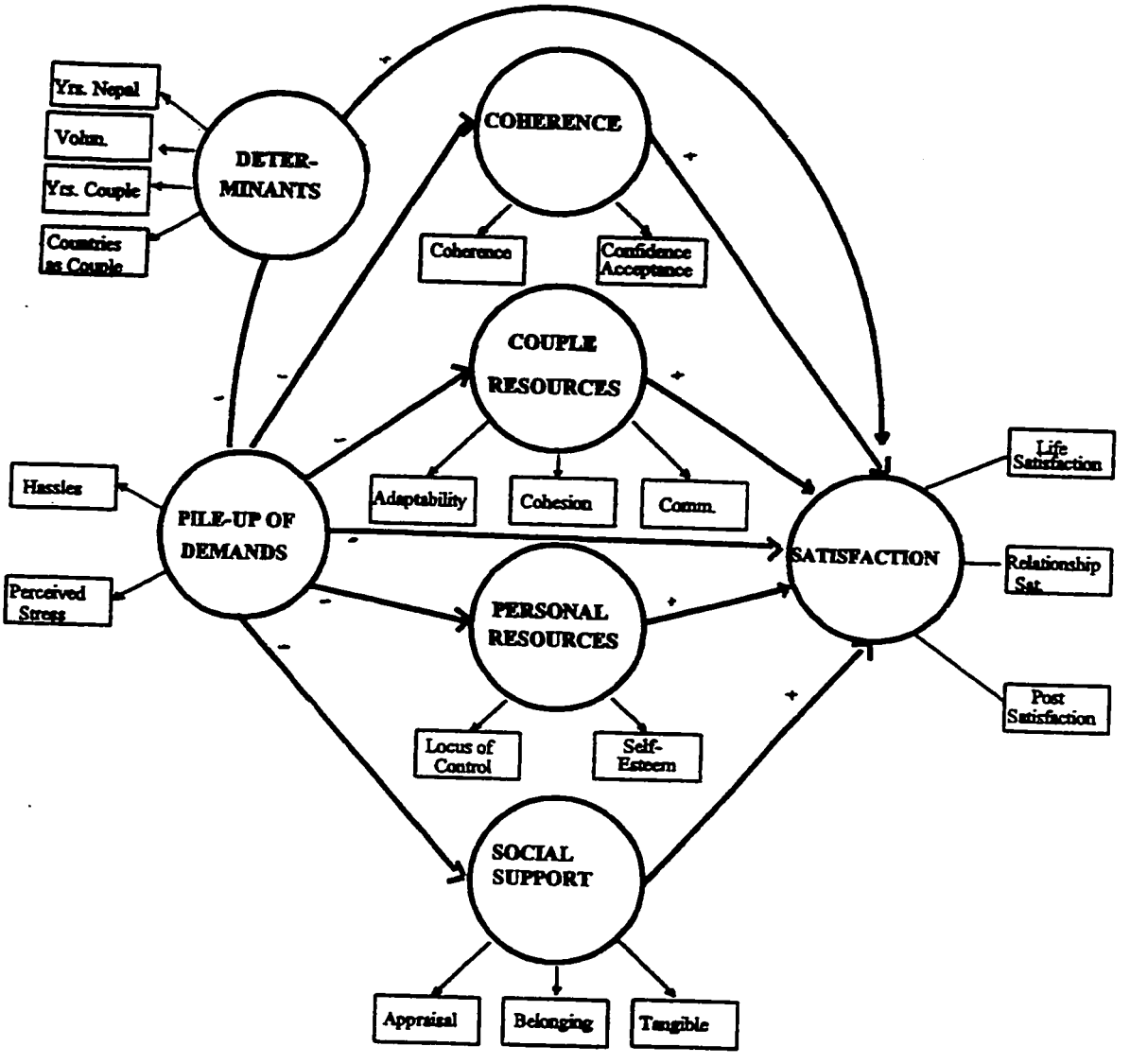

Yrs. Nepal
Volun.
Yrs. Couple
Countries as Couple
DETER-MINANTS
COHERENCE
Coherence
Confidence Acceptance
COUPLE RESOURCES
Adaptability
Cohesion
Comm.
Hassles
Perceived Stress
PILE-UP OF DEMANDS
SATISFACTION
Life Satisfaction
Relationship Sat.
Post Satisfaction
PERSONAL RESOURCES
Locus of Control
Self-Esteem
SOCIAL SUPPORT
Appraisal
Belonging
Tangible

Figure 3:

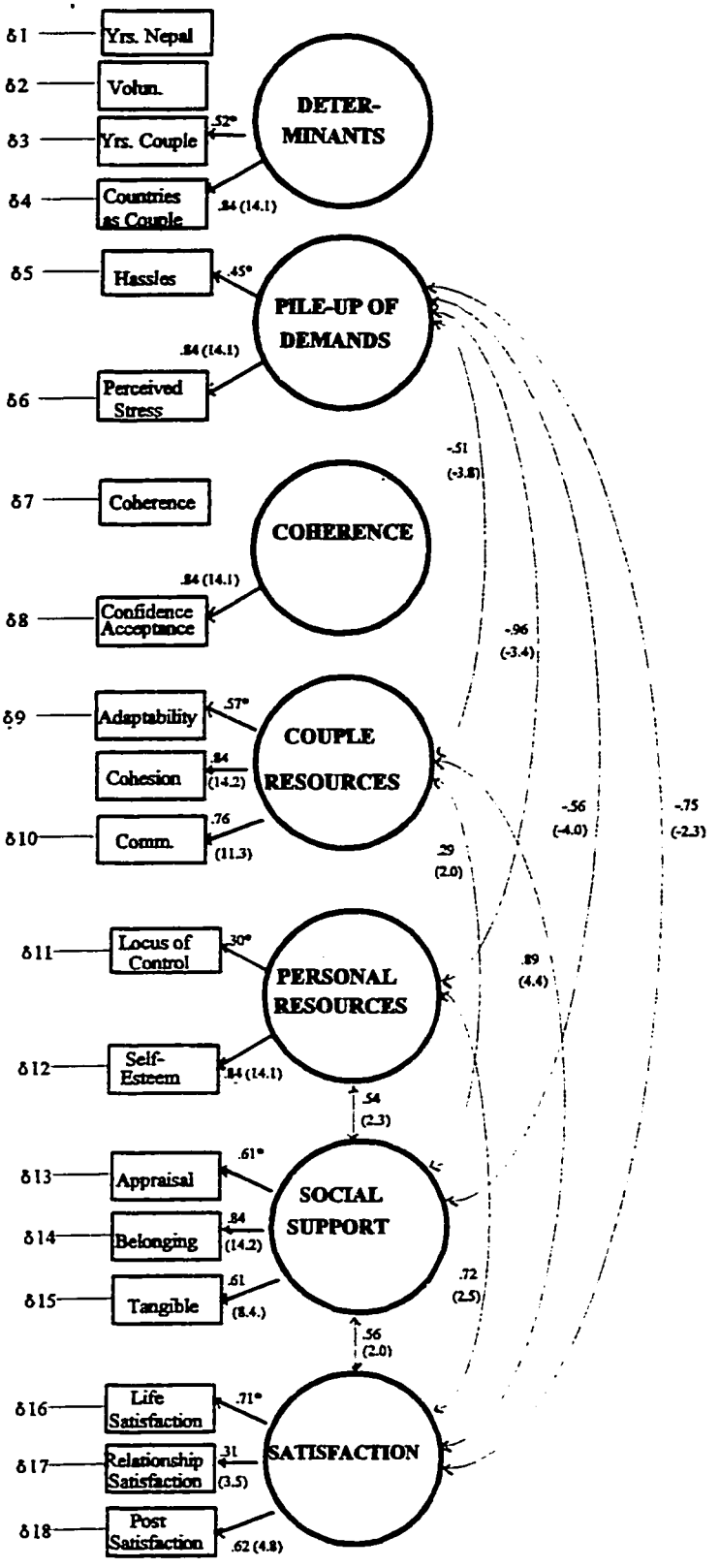

δ1
Yrs. Nepal
δ2
Volun.
δ3
Yrs. Couple
δ4
Countries as Couple
.52*
.84 (14.1)
DETER-MINANTS
δ5
Hassles
δ6
Perceived Stress
.45*
.84 (14.1)
PILE-UP OF DEMANDS
δ7
Coherence
δ8
Confidence Acceptance
.84 (14.1)
COHERENCE
δ9
Adaptability
Cohesion
δ10
Comm.
.57*
.84 (14.2)
.76 (11.3)
COUPLE RESOURCES
δ11
Locus of Control
δ12
Self-Esteem
.30*
.84 (14.1)
PERSONAL RESOURCES
δ13
Appraisal
δ14
Belonging
δ15
Tangible
.61*
.84 (14.2)
.61 (8.4.)
SOCIAL SUPPORT
δ16
Life Satisfaction
δ17
Relationship Satisfaction
δ18
Post Satisfaction
.71*
.31 (3.5)
.62 (4.8)
SATISFACTION
-.51 (-3.8)
-.96 (-3.4)
-.56 (-4.0)
-.75 (-2.3)
.29 (2.0)
.89 (4.4)
.54 (2.3)
.72 (2.5)
.56 (2.0)

Figure 4:

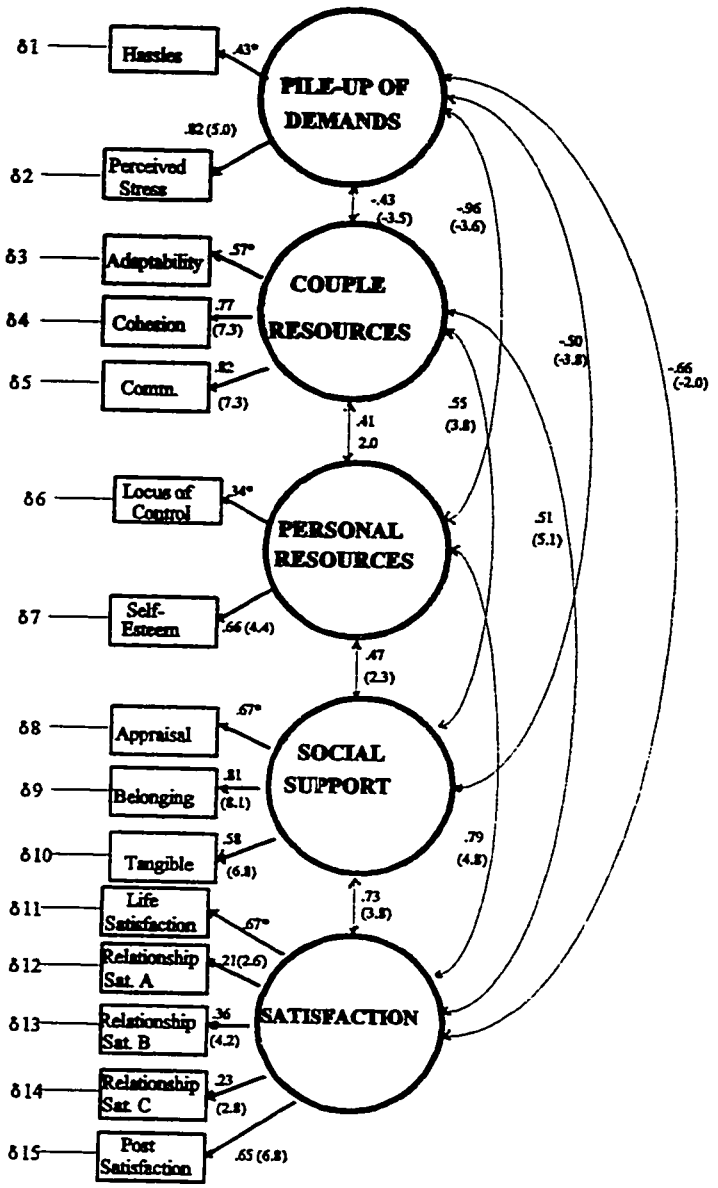

δ1
Hassles
.43*
PILE-UP OF DEMANDS
.82 (5.0)
δ2
Perceived Stress
-.43 (-3.5)
-.96 (-3.6)
δ3
Adaptability
.57*
COUPLE RESOURCES
δ4
Cohesion
.77 (7.3)
δ5
Comm.
.82 (7.3)
-.50 (-3.8)
-.66 (-2.0)
.55 (3.8)
.41 2.0
δ6
Locus of Control
.34*
PERSONAL RESOURCES
.51 (5.1)
δ7
Self-Esteem
.66 (4.4)
.47 (2.3)
δ8
Appraisal
.67*
SOCIAL SUPPORT
δ9
Belonging
.81 (8.1)
δ10
Tangible
.58 (6.8)
.79 (4.8)
.73 (3.8)
δ11
Life Satisfaction
.67*
δ12
Relationship Sat. A
.21 (2.6)
δ13
Relationship Sat. B
.36 (4.2)
SATISFACTION
δ14
Relationship Sat. C
.23 (2.8)
δ15
Post Satisfaction
.65 (6.8)

Figure 5:

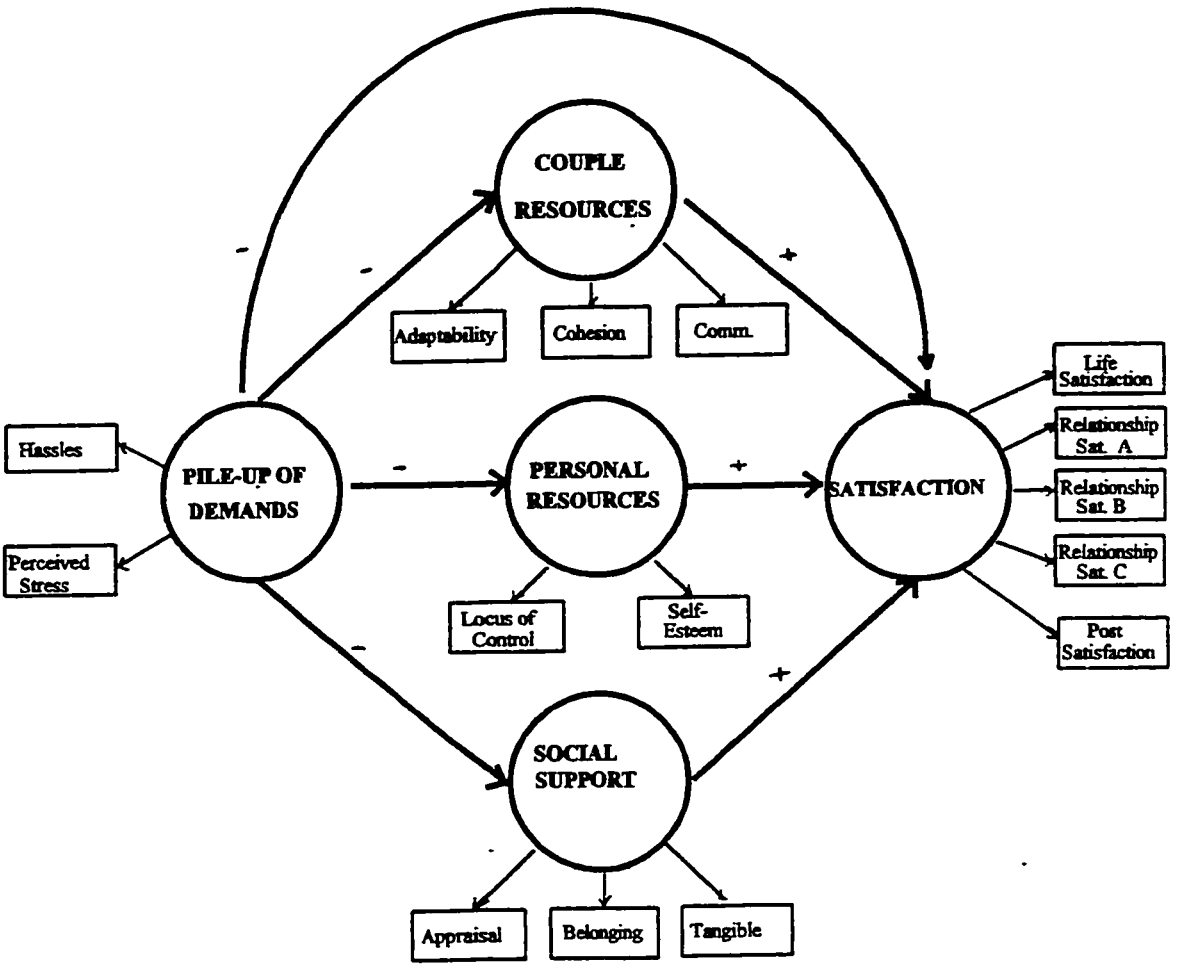

COUPLE RESOURCES
Adaptability
Cohesion
Comm.
Hassles
PILE-UP OF DEMANDS
Perceived Stress
PERSONAL RESOURCES
Locus of Control
Self-Esteem
SATISFACTION
Life Satisfaction
Relationship Sat. A
Relationship Sat. B
Relationship Sat. C
Post Satisfaction
SOCIAL SUPPORT
Appraisal
Belonging
Tangible
-
-
+
-
+
-
+

Figure 6:

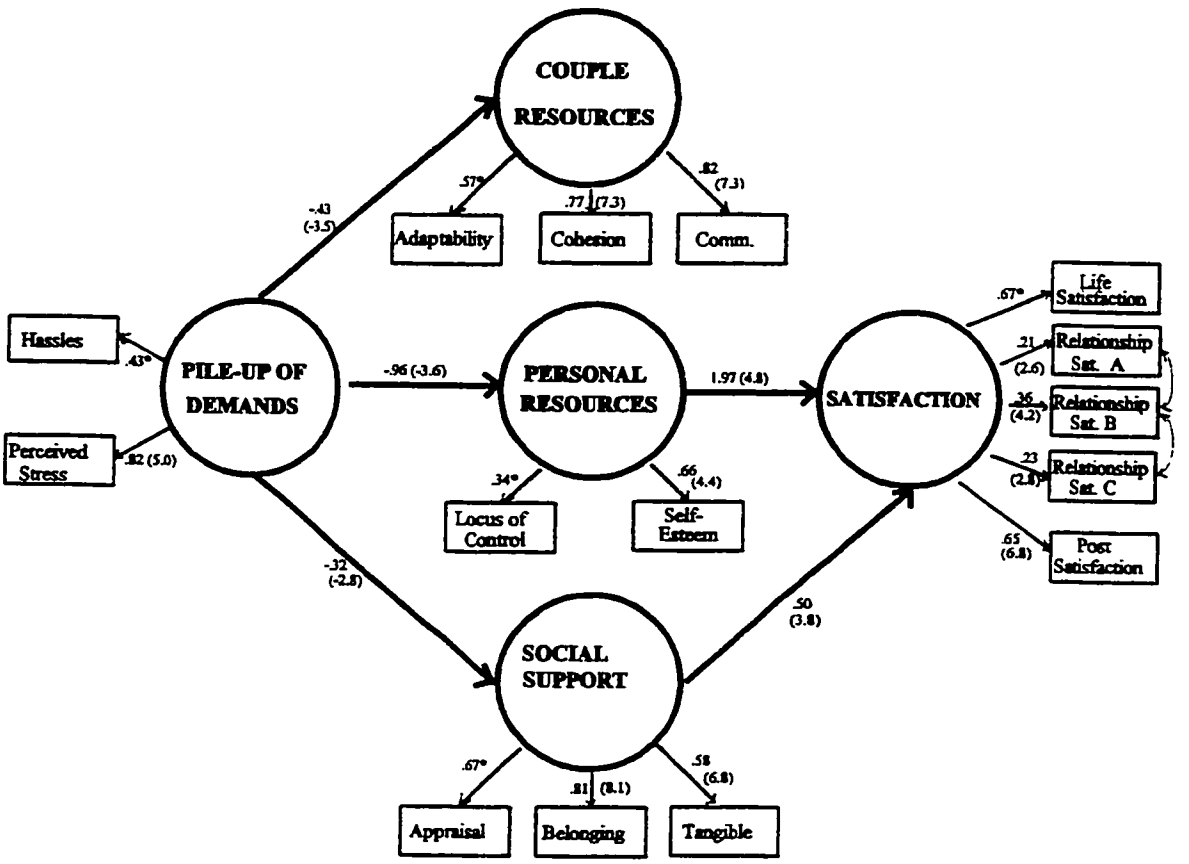

COUPLE RESOURCES
.57*
.77 (7.3)
.82 (7.3)
Adaptability
Cohesion
Comm.
-.43 (-3.5)
Hassles
.43*
PILE-UP OF DEMANDS
Perceived Stress
.82 (5.0)
-.96 (-3.6)
PERSONAL RESOURCES
1.97 (4.8)
SATISFACTION
.34*
.66 (4.4)
Locus of Control
Self-Esteem
.67*
Life Satisfaction
.21 (2.6)
Relationship Sat. A
.36 (4.2)
Relationship Sat. B
.23 (2.8)
Relationship Sat. C
.65 (6.8)
Post Satisfaction
-.32 (-2.8)
.50 (3.8)
SOCIAL SUPPORT
.67*
.81 (8.1)
.58 (6.8)
Appraisal
Belonging
Tangible

Figure 7:

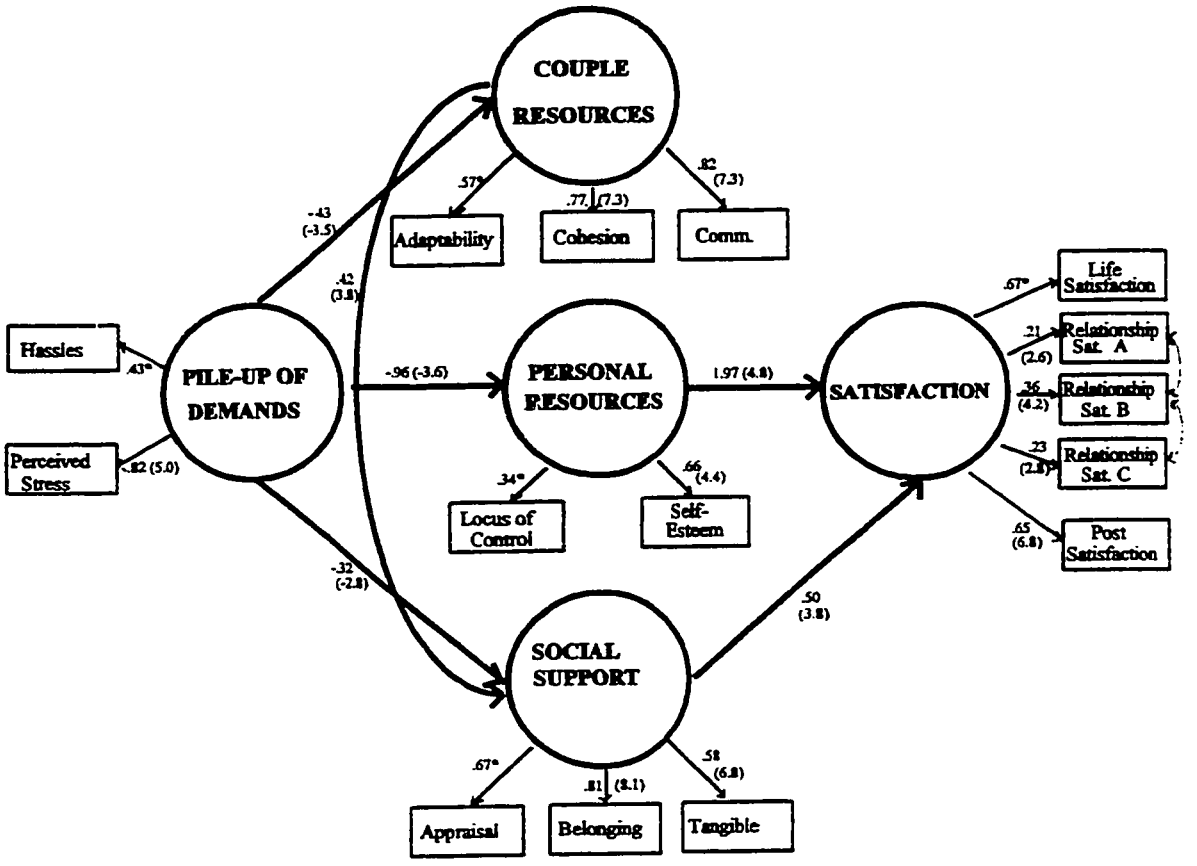

COUPLE RESOURCES
.82 (7.3)
.57*
.77 (7.3)
Adaptability
Cohesion
Comm.
-.43 (-3.5)
.42 (3.8)
Hassles
.43*
PILE-UP OF DEMANDS
Perceived Stress
.82 (5.0)
-.96 (-3.6)
PERSONAL RESOURCES
1.97 (4.8)
SATISFACTION
.34*
.66 (4.4)
Locus of Control
Self-Esteem
-.32 (-2.8)
.50 (3.8)
SOCIAL SUPPORT
.67*
.81 (8.1)
.58 (6.8)
Appraisal
Belonging
Tangible
.67*
Life Satisfaction
.21 (2.6)
Relationship Sat. A
.36 (4.2)
Relationship Sat. B
.23 (2.8)
Relationship Sat. C
.65 (6.8)
Post Satisfaction

Figure 8:

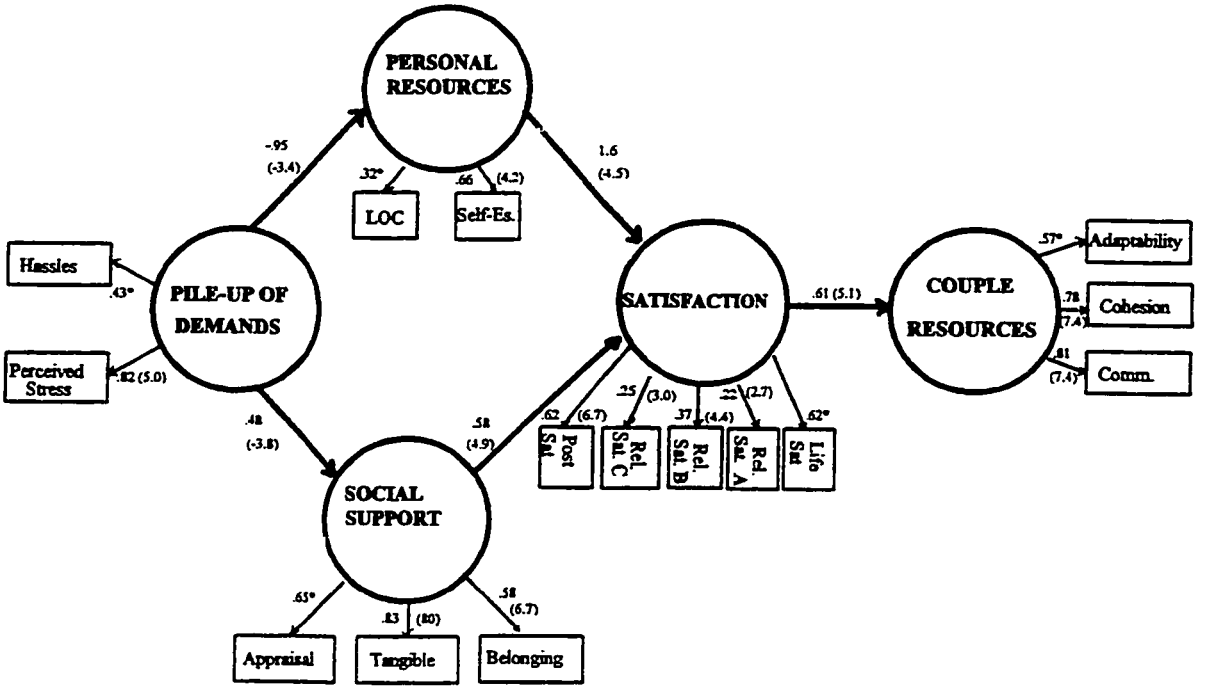

PERSONAL RESOURCES
-.95 (-3.4)
1.6 (4.5)
.32*
.66 (4.2)
LOC
Self-Es.
Hassles
.43*
PILE-UP OF DEMANDS
Perceived Stress
.82 (5.0)
.48 (-3.8)
.58 (4.9)
SATISFACTION
.61 (5.1)
COUPLE RESOURCES
.57*
Adaptability
.78 (7.4)
Cohesion
.81 (7.4)
Comm.
.62
(6.7)
.25 (3.0)
.37 (4.4)
.22 (2.7)
.62*
Post Sat.
Rel. Sat. C
Rel. Sat. B
Rel. Sat. A
Life Sat.
SOCIAL SUPPORT
.65*
.83 (80)
.58 (6.7)
Appraisal
Tangible
Belonging

Table 1

Means, Standard Deviations, Ranges and Alpha Coefficients for all of the Variables

Measure	M	SD	Range	Alpha Coefficient
Hassles Scale	34.8	23.2	2-159	.87
10-item PSS	15.1	5.8	0-31	.81
MACES III-Adaptability	32.4	5.6	20-49	.80
MACES III-Cohesion	42.2	5.6	25-50	.88
ENRICH-Communication	53.5	9.7	27-70	.76
MMCPC-Adult version	37.8	5.7	23-52	.71
Rosenberg Self-Esteem Inventory	57.2	8.5	31-70	.78
ISEL-Appraisal	53.5	11.0	19-70	.81
ISEL-Belonging	56.1	10.1	26-70	.79
ISEL-Tangible	61.1	7.6	32-70	.74
F-COPES-Reframing	40.6	7.5	16-56	.83
11-item FIC	59.7	10.8	29-77	.76
SWLS-Modified Version	23.3	6.2	7-35	.84
DAS-Satisfaction	51.1	4.5	37-59	.74
Post Satisfaction	52.0	9.2	26-76	.80

Table 2

Correlation Matrix of the Variables

	Has	PSS	Coh	Con	Ada	Csn	Com	LOC	SE	App	Bel	Tan	Lif	Rel	Pst
Has	100														
PSS	38	100													
Coh	-21	-31	100												
Con	-06	-30	05	100											
Ada	-06	-19	10	32	100										
Csn	-09	-18	23	25	48	100									
Comm	-11	-31	26	27	44	63	100								
LOC	-09	-30	21	19	28	10	06	100							
SE	-21	-50	17	34	30	25	30	25	100						
App	-08	-24	42	18	31	34	45	15	29	100					
Bel	-20	-31	37	21	13	27	34	15	24	52	100				
Tan	-19	-24	23	20	20	24	26	15	19	34	52	100			
Lif	-23	-43	29	32	19	18	20	15	39	33	41	13	100		
Rel	-23	-28	30	20	29	65	66	03	28	40	23	18	22	100	
Pst	-15	-25	17	26	19	23	31	07	33	37	42	24	44	19	100

Note. Abbreviations are as follows: Has = Hassles; PSS = Perceived Stress; Coh = Coherence; Con = Confidence/Acceptance; Ada = Adaptability; Csn = Cohesion; Com = Communication; LOC = Locus of Control; SE = Self-Esteem; App = Appraisal Support; Bel = Belonging Support; Tan = Tangible Support; Lif = Life Satisfaction; Rel = Relationship Satisfaction; Pst = Post Satisfaction.

Table 3

Fit Indices for the Models

Models	X^2	df	GFI	CFI	TLI
Model 2	334.43	105	.84		
null	885.54	78			
Model 3	201.22	55	.87	.81	.68
null	929.65	105			
Model 4	293.55	85	.83	.75	.69
Model 5	163.44	81	.91	.87	.87
Model 6	147.07	80	.91	.92	.90
Model 7	147.75	82	.91	.92	.90

Table 4

Model 6: Direct and Indirect Effects of Mediating Variables on Satisfaction

Latent Variable	Direct Effect	Indirect Effect
Family Resources	.07	.241*
Personal Resources	3.746*	-
Social Support	.491*	-

Note. *t > 1.96

Table 5

Variable Means as a Function of Gender

Variable	Gender		p
	Women	Men	
Hassles	34.7	34.8	.97
PSS	15.5	14.8	.36
Coherence	60.5	58.9	.26
Confidence/ Acceptance	40.5	40.7	.85
Adaptability	33.0	31.8	.13
Cohesion	42.5	42.0	.54
Communication	56.3	52.9	.30
Locus of Control	37.7	37.8	.85
Self-Esteem	56.8	57.5	.52
Appraisal Support	55.0	52.0	.06
Belonging Support	56.8	55.5	.36
Tangible Support	61.2	61.1	.84
Life Satisfaction	23.2	23.4	.77
Marital Satisfaction	51.2	51.0	.80
Post Satisfaction	51.8	52.2	.74

Note. A one-way ANOVA was used to conduct the analysis.

Table 6

Variable Means as a Function of Trailing Spouse Status

Variable	Trailing Status		p
	Trailers	Initiators	
Hassles	35.5	33.9	.69
PSS	14.9	15.1	.84
Coherence	57.8	59.9	.22
Confidence/ Acceptance	40.9	40.3	.65
Adaptability	31.5	32.2	.40
Cohesion	41.4	42.0	.55
Communication	52.5	52.8	.85
Locus of Control	38.1	38.2	.97
Self-Esteem	58.0	56.0	.18
Appraisal Support	51.5	54.4	.11
Belonging Support	55.7	56.8	.50
Tangible Support	60.2	61.7	.22
Life Satisfaction	23.5	23.0	.65
Marital Satisfaction	50.7	50.8	.87
Post Satisfaction	52.6	52.3	.87

Note. A one-way ANOVA was used to conduct the analysis.

Figure Captions

Figure 1. The Double ABCX model (From "Family Adaptation to Crisis" by H. I. McCubbin and J. M. Patterson, In H. I. McCubbin, A. E. Cauble, & J. M. Patterson (Eds.), Family Stress, Coping, and Social Support, (pp. 26-47). Springfield, IL: Charles C. Thomas, 1982.)

Figure 2. Model 1: The proposed model sojourner intercultural relocation. The signs represent the direction of the hypothesized relation.

Figure 3. Model 2: The measurement model. Standardized estimates for a 7-factor structure underlying 19 indicators. Parenthesized values represent *t*-values; only significant relations ($t>1.96$, $p<.05$) are presented.
* denotes parameter is fixed to 1.0 for purposes of statistical identification.

Figure 4. Model 3: The final measurement model. Standardized estimates for a 5-factor structure underlying 15 indicators. Parenthesized values represent *t*-values; only significant relations ($t>1.96$, $p<.05$) are presented.
* denotes parameter is fixed to 1.0 for purposes of statistical identification.

Figure 5. Model 4: The revised model of sojourner intercultural relocation. The signs represent the direction of the hypothesized relation.

Figure 6. Model 5: The structural model. Arrows represent significant causal paths. Parenthesized values represent *t*-values of parameter estimates; values > 1.96 represent statistical significance ($p < .05$).
* denotes parameter is fixed to 1.0 for purposes of statistical identification.

Figure 7. Model 6: Proposed model of intercultural relocation with Couple Resources affecting Satisfaction Indirectly. Arrows represent significant causal paths. Parenthesized values represent *t*-values of parameter estimates; values > 1.96 represent statistical significance ($p < .05$).
* denotes parameter is fixed to 1.0 for purposes of statistical identification.

Figure 8. Model 7: Proposed model of intercultural relocation with Couple Resources as a marker of adjustment. Arrows represent significant causal paths. Parenthesized values represent *t*-values of parameter estimates; values > 1.96 represent statistical significance ($p<.05$).
* denotes parameter is fixed to 1.0 for purposes of statistical identification.

Appendix A

Evaluation of the Circumplex Model

Among Expatriate Couples

Susan James-Tanner and John Hunsley

University of Ottawa

Poster Presented at the American

Psychological Association Annual Convention

August 1993

Running head: CIRCUMPLEX MODEL

results confirm that the relationship between Adaptability and adjustment is linear.

In the second analysis, when Cohesion (C) was regressed on Adjustment, R^2 was .607 ($p<.0001$). The addition of the second (C^2) degree term resulted in an R^2 change of .001 ($p=.491$). Once again, the third (C^3) degree term could not be entered due to an extremely low tolerance value (1×10^{-4}). These results also suggest a linear relationship between Cohesion and adjustment.

To further test the hypothesis, a chi square analysis was conducted to determine if happily married couples (scores $\geq$ 115 on the DAS) were overrepresented in the flexibly connected quadrant compared to the other four groups: balanced, flexibly separated, structurally separated, and structurally connected. To determine group affiliation, the Cohesion by Adaptability matrix was divided into 16 family types and then further divided into the 5 groups according to the cutting points provided in the FACES III manual (Olson, McCubbin, Barnes, Larsen, Muxen and Wilson, 1985).

The chi square analysis demonstrated that there are significant differences in the frequency of happily married couples in the 5 groups ($\chi^2 = 79.13$, $p<.001$). The results confirmed that a significant proportion of the happily married couples were located in the flexibly connected quadrant 67% (53), with substantially less representation in the other groups: flexibly separated 16% (13), balanced 15% (12), structurally

separated 1% (1) and structurally connected (0). These results also suggest a linear relationship between Adaptability, Cohesion and relationship adjustment.

Discussion

The results of this study support the hypothesis that there is a linear relationship between the FACES III dimensions and marital adjustment. This finding is incongruent with the Circumplex Model, but it supports previous studies that have also found a linear relationship between Adaptability, Cohesion, and family functioning.

The results indicate that, for the expatriate couples living in Nepal, a flexibly-connected family structure may represent the optimal structure. This may suggest that the overseas context requires a particular family structure, and couples who can adapt to that structure demonstrate the highest degree of marital adjustment. In developing countries the movement and activity of the non-working spouses is limited, particularly for women. Hence, the context requires that the couple participate in activities conjointly. In addition, the conditions necessitate considerable flexibility, as many resources previously taken for granted by the expatriate, such as running water, electricity and heat, are often unavailable. Hence, in this context, as the amount of adaptability and cohesion increases, marital functioning increases. Consequently, it is important to understand a couple's context before determining their adjustment

using the Circumplex Model.

Marital structure and marital adjustment are interrelated dynamic processes. Longitudinal research is needed to further investigate the results obtained in this cross-sectional study. It would be important to explore reciprocal changes in both structure and adjustment as couples cope with the challenges facing them. Furthermore, research is needed to investigate analogous processes in couples adapting to their home country upon repatriation.

Abstract

Olson's curvilinear postulate proposes that moderate amounts of Cohesion and Adaptability, as measured by FACES III, are optimal for family functioning; extremes on these two dimensions are detrimental. Previous research, however, indicates that Cohesion and Adaptability are linearly related to family functioning. It was hypothesized that among expatriate couples living overseas there would be a linear relationship between marital adjustment and Adaptability and Cohesion. 187 subjects stationed in Nepal completed the FACES III and the Dyadic Adjustment Scale. Polynomial trend analyses and a chi square analysis confirmed that Adaptability and Cohesion are linearly related to marital adjustment.

Evaluation of the Circumplex Model Among Expatriate Couples

The Circumplex Model (Olson, Russell, & Sprenkle, 1979) suggests that family adjustment is characterized by moderate amounts of Cohesion and Adaptability while extremes on these two continuums are detrimental. Hence, it is hypothesized that there is a curvilinear relationship between family functioning and these two dimensions, as measured by the Family Adaptability and Cohesion Evaluation Scale III (FACES III) (Olson, Portner & Lavee, 1985). Recent studies, however, have not supported the curvilinear postulate (Green, Harris, Forte & Robinson, 1991; Perosa & Perosa, 1990; Pratt & Hansen, 1987). Researchers are discovering a linear relationship between family functioning and Adaptability and Cohesion. The present study investigates the curvilinear postulate of the Circumplex Model for couples stationed in Nepal. Based on previous research of the curvilinear postulate and the demands of the overseas context, it was hypothesized that for these couples there would be a linear relationship between Adaptability, Cohesion and marital adjustment.

Method

Subjects

The sample consisted of 187 subjects, 95 males and 92 females, who were stationed in Nepal by aid agencies, embassies, mission organizations, corporations, and the military. They

represented various developed nations, including mainly the United States, Canada, and Europe.

All subjects were currently married or living common-law and were currently residing with their partners. The ages ranged from 25 to 68, and the combined earning of the subjects and their partners ranged from under $5,000 per year, for subjects with volunteer organizations, to over $50,000 per year for some aid and embassy staff.

Procedure

Eighty-six organizations distributed questionnaire packages to their staff; in total, approximately 400 couples received the questionnaire package. The response rate was 24%; this was lower than anticipated, and was probably due to the fact that many families had returned to their home country during the period that this study was being conducted. The questionnaire package included a demographics survey, the couple version of FACES III, and the Dyadic Adjustment Scale (Spanier, 1976) in a random order.

Measures

The couple version of FACES III is a 20-item self-report measure with Adaptability and Cohesion subscales. Based on an American sample of 1000 families, Olson and his colleagues (1985) reported the 10-item Cohesion and Adaptability subscales to have an internal consistency of .77 and .62, respectively, with a test-retest reliability of .83 and .80.

The Dyadic Adjustment Scale (Spanier, 1976) is the most commonly used relationship adjustment measure. The measure has an internal consistency of .86 (Cronbach's Alpha) and can effectively discriminate between distressed and non-distressed couples.

Results

The scores on the Adaptability and Cohesion subscales ranged from 17 to 39, and 23 to 49 respectively, approximating a normal population (Olson et al., 1985). Similarly, the scores on the DAS ranged from 80 to 138, with 15% of the couples categorized as distressed, approximating a normal population (Spanier, 1976).

To test the hypothesis that Adaptability and Cohesion are linearly related to marital adjustment, a polynomial trend analysis was utilized to determine if the curvilinear functions of the variables could predict marital adjustment better than the linear equations. That is, once the predictor variable was in the equation, does the addition of the second or third degree terms contribute to the prediction of marital adjustment? In the first analysis, the regression of Adaptability (A) on marital adjustment, the R^2 was .161 ($p<.0001$), indicating a linear relationship. When the second (A^2) degree term was added the resulting R^2 change was .007 ($p=.189$). The third (A^3) degree term could not be added due to an exceedingly low tolerance value (1×10^{-4}). Hence, neither the second nor third degree term significantly explained additional variance. Therefore, these

References

Green, R. G., Harris, R. N., Forte, J. A., & Robinson, M. (1991). Evaluating FACES III and the Circumplex Model: 2,440 families. Family Process, 30, 55-73.

Perosa, L. M., & Perosa, S. L. (1990). The use of a bipolar item format for FACES III: a reconsideration. Journal of Marital and Family Therapy, 16, 187-199.

Pratt, D. M., & Hansen, J. C. (1987). A test of the curvilinear hypothesis with FACES II and III. Journal of Marital and Family Therapy, 13, 387-392.

Olson, D. H., McCubbin, H. I., Barnes, H., Larsen, A., Muxen, M., & Wilson, M. (1985). Family Inventories (revised edition). St. Paul, MN: Family Social Science.

Olson, D. H., Portner, J., & Lavee, Y. (1985). FACES III. St. Paul, MN: Family Social Science.

Olson, D. H., Russell, C. S., & Sprenkle, D. H. (1979). Circumplex model of marital and family systems II: Empirical studies and clinical intervention. In John Vincent (Ed.), Advances in family interventions, assessment and theory (pp. 128-176). Greenwich, CT: JAI Press.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

Appendix B

Legend for Questionnaire

	Page	Item Numbers
DEMOGRAPHICS	1, 2	-
VIEWS ABOUT YOURSELF	3-5	
Rosenberg Self-Esteem Inventory	3	1-10
MMCPC - Adult version	3	11-18
SWLS	3	19-23
ISEL	4, 5	1-30
Perceived Stress Scale	5	1-10
VIEWS ABOUT YOUR FAMILY	6-8	
Family Index of Coherence	6	1-11
F-COPES Reframing	6	1-8
ENRICH Communication	7	1-10
MACES III	7	1-20
DAS 10-item	8	1-10
VIEWS ABOUT LIVING IN NEPAL	9, 10	
Hassles Scale	9, 10	1-53
Post Satisfaction	10	1-11

UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

ÉCOLE DE PSYCHOLOGIE
SCHOOL OF PSYCHOLOGY

The Expatriate Couple

Adjustment Project

DEMOGRAPHICS

To help us interpret this questionnaire we need some demographic information about you. Please circle the answer that best describes you and/or fill in the information requested.

What is your gender? Female Male

What is your age? ___ years

What is your home country? _____
What is your nationality(s)? _____
Where were your parents born? _____

How long have you lived in Nepal? ___ years

Have you stayed longer than your initial posting period? YES NO

Approximately how much longer do you expect to be in Nepal?
___ years

If you had a choice would you elect to stay past your initial posting period?
YES NO

How long has it been since: visiting your home country? ___ years
living in your home country? ___ years

Have you lived in a developing country before?

Country	Number of Years	Approx. Age	Were you with your present partner?	
_____	_____	_____	Yes	No
_____	_____	_____	Yes	No
_____	_____	_____	Yes	No
_____	_____	_____	Yes	No
_____	_____	_____	Yes	No

How many countries have you lived in since becoming a couple? ___

Why did you come to Nepal? _____
_____
_____

With which organization are you affiliated?
_____

What is your present occupation (please be specific)?
_____
_____

Who is on assignment? ____ You
____ Your partner
____ Both of you

We would like to get a sense of how much choice you had in the decision to move to Nepal. Using the scale below we would like you to indicate how much you agree with the following statements:

1	2	3	4	5	6	7
Do Not Agree		Slightly Agree		Moderately Agree		Strongly Agree

___ 1. I had a lot of input into the decision to live overseas.
___ 2. I had a lot of input into the decision to live in Nepal.
___ 3. My partner had a lot input into the decision to live overseas.
___ 4. My partner had a lot of input into the decision to live in Nepal.
___ 5. The organization with which we are in Nepal dictates whether or not we live overseas.
___ 6. The organization with which we are here, dictated that we would live in Nepal.

Do you speak Nepali?

1	2	3	4	5
Not at all	A little	Some	A lot	Fluent

Do you and your partner currently live at the same address? (circle one)

YES NO

If NO: where is your partner living? _____
how long have you been apart? _____

Is your partner out of the country on holiday or assignment? Yes No

If YES: how long has it been since you have seen him/her? ____

How many years have you and your partner lived together as a couple?
____ years

How many children do you have? __

How many children go to school locally? __

How many children go to boarding school in Nepal? ___

How many children go to boarding school outside of Nepal? ___

VIEWS ABOUT YOURSELF

We would like you to indicate how characteristic each of the following statements is of you by using the code given below to show whether you agree or disagree with each statement.

1	2	3	4	5	6	7
Do Not Agree		Slightly Agree		Moderately Agree		Strongly Agree

___ 1. On the whole, I am satisfied with myself.

___ 2. At times I think I am no good at all.

___ 3. I feel that I have a number of good qualities.

___ 4. I am able to do things as well as most people.

___ 5. I feel I do not have much to be proud of.

___ 6. I certainly feel useless at times.

___ 7. I feel that I am a person of worth, at least equal with others.

___ 8. I wish I could have more respect for myself.

___ 9. All in all, I am inclined to feel that I am a failure.

___ 10. I take a positive attitude toward myself.

___ 11. To get what I want, I have to please the people in charge.

___ 12. I can pretty much decide what will happen in my life.

___ 13. If people in charge don't want me to do something I want to do, I probably won't be able to do it.

___ 14. When I don't do well at something, it is usually my own fault.

___ 15. I can pretty much control what will happen in my life.

___ 16. If there is something that I want to get, I usually have to please the people in charge to get it.

___ 17. When I am unsuccessful, it is usually my own fault.

___ 18. I don't have much chance of doing what I want if those in charge don't want me to do it.

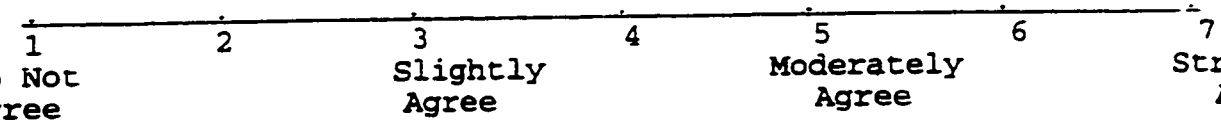
___ 19. In most ways my life in Nepal is close to my ideal.

___ 20. The conditions of my life in Nepal are excellent.

___ 21. I am satisfied with my life in Nepal.

___ 22. So far I have attained the important things I want in life.

___ 23. If I could live this posting over again, I would change almost nothing.



___ 1. There is at least one person I know whose advice I really trust.
___ 2. There is really no one I can trust to give me good financial advice.
___ 3. There is really no one who can give me objective feedback about how I'm handling my problems.
___ 4. When I need suggestions for how to deal with a personal problem I know there is someone I can turn to.
___ 5. There is someone who I feel comfortable going to for advice about sexual problems.
___ 6. There is someone I can turn to for advice about handling hassles over household responsibilities.
___ 7. I feel that there is no one with whom I can share my most private worries and fears.
___ 8. If a family crisis arose few of my friends would be able to give me good advice about handling it.
___ 9. There are very few people I trust to help solve my problems.
___ 10. There is someone I could turn to for advice about changing my job or finding a new one.
___ 11. If I decide one afternoon that I would like to go out that evening, I could find someone to go with me.
___ 12. No one I know would throw a birthday party for me.
___ 13. There are several different people with whom I enjoy spending time.
___ 14. I don't often get invited to do things with others.
___ 15. If I wanted to have lunch with someone, I could easily find someone to join me.
___ 16. Most people I know don't enjoy the same things that I do.
___ 17. When I feel lonely, there are several people I could call and talk to.
___ 18. I regularly meet or talk with members of my family or friends.
___ 19. I feel that I'm on the fringe in my circle of friends.
___ 20. If I wanted to go out of town for the day I would have a hard time finding someone to go with me.
___ 21. If for some reason I was detained by the police, there is someone I could call who could help me.
___ 22. If I had to go out of town for a few weeks, someone I know would look after my home (the plants, pets, yard, etc.)
___ 23. If I were sick and needed someone to drive me to the doctor, I would have trouble finding someone.
___ 24. There is no one I could call on if I needed to borrow a car for a few hours.
___ 25. If I needed a quick emergency loan of $100, there is someone I could get it from.

1	2	3	4	5	6	7
Do Not Agree		Slightly Agree		Moderately Agree		Strongly Agree

___ 26. If I needed some help in moving to a new home, I would have a hard time finding someone to help me.
___ 27. If I were sick, there would be almost no one I could find to help me with my daily chores.
___ 28. If I got stranded 10 miles out of town, there is someone I could call to come and get me.
___ 29. If I had to make an important delivery by 5:00 and couldn't make it, there is someone who could do it for me.
___ 30. If I needed a ride to the airport very early in the morning, I would have a hard time finding anyone to take me.

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate *how often* you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

never	almost never	sometimes	fairly often	very often
0	1	2	3	4

___ 1. In the last month, how often have you been upset because of something that happened unexpectedly?

___ 2. In the last month, how often have you felt that you were unable to control the important things in your life?

___ 3. In the last month, how often have you felt nervous and "stressed"?

___ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?

___ 5. In the last month, how often have you felt that things were going your way?

___ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

___ 7. In the last month, how often have you been able to control irritations in your life?

___ 8. In the last month, how often have you felt that you were on top of things?

___ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?
___ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

VIEWS ABOUT YOUR FAMILY

Please rate the following statements as they apply to your family and your organization (the organization/mission that brought you to Nepal). The word "family" refers to your immediate family living in Nepal.

1	2	3	4	5	6	7
Do Not Agree		Slightly Agree		Moderately Agree		Strongly Agree

___ 1. Our family can pretty well plan in advance for the next posting.

___ 2. If we have problems or special needs in our family, we feel confident we can get the help we need.

___ 3. Our family feels we have some say about future assignments (when and where).

___ 4. The overseas lifestyle makes planning for family members' education and work almost impossible.

___ 5. The career of the family member on assignment will be hurt if our family voices any special needs or frustrations.

___ 6. Our work and family schedules are always up in the air because of long hours or frequent absences of family members.

___ 7. The organization treats its members and their families justly and fairly.

___ 8. Our family shares a commitment to the lifestyle and mission of the organization.

___ 9. The organization really does take care of its families and wants us to be happy.

___ 10. Even though living overseas can create hardships for us, the organization makes every effort to help us understand why.

___ 11. There is no way that the overseas lifestyle can ever be good for our family.

WHEN WE FACE PROBLEMS OR DIFFICULTIES IN OUR FAMILY, WE RESPOND BY:
(the word "family" refers to your immediate family living in Nepal)

____ 1. Knowing we have the strength within our own family to solve our problems.

____ 2. Knowing we have the power to solve major problems.

____ 3. Believing we can handle our own problems.

____ 4. Showing that we are strong.

____ 5. Facing problems head-on and trying to get solutions right away.

____ 6. Accepting stressful events as a fact of life.

____ 7. Defining the family problem in a more positive way so that we do not become too discouraged.

____ 8. Accepting that difficulties occur unexpectedly.

1	2	3	4	5	6	7
Do Not Agree		Slightly Agree		Moderately Agree		Strongly Agree

___ 1. It is very easy for me to express all my true feelings to my partner.

___ 2. When we are having a problem, my partner often gives me the silent treatment.

___ 3. My partner sometimes makes comments which put me down.

___ 4. I am sometimes afraid to ask my partner for what I want.

___ 5. I wish my partner was more willing to share his/her feelings with me.

___ 6. Sometimes I have trouble believing everything my partner tells me.

___ 7. I often do not tell my partner what I am feeling because he/she should already know.

___ 8. I am very satisfied with how my partner and I talk with each other.

___ 9. I do not always share negative feelings I have about my partner because I am afraid he/she will get angry.

___ 10. My partner is always a good listener.

IN THE RESPONSE COLUMN RATE HOW YOUR RELATIONSHIP SEEMS TO YOU:

1	2	3	4	5
Almost Never	Once in a while	Sometimes	Frequently	Almost Always

___ 1. We ask each other for help.
___ 2. When problems arise, we compromise.
___ 3. We approve of each other's friends.
___ 4. We are flexible in how we handle our differences.
___ 5. We like to do things with each other.
___ 6. Different persons act as leader in our marriage.
___ 7. We feel closer to each other than to people outside our family.
___ 8. We change our way of handling tasks.
___ 9. We like to spend time with each other.
___ 10. We try new ways of dealing with problems.
___ 11. We feel very close to each other.
___ 12. We jointly make decisions in our marriage.
___ 13. We share hobbies and interests together.
___ 14. Rules change in our marriage.
___ 15. We can easily think of things to do together as a couple.
___ 16. We shift household responsibilities from person to person.
___ 17. We consult each other in our decisions.
___ 18. It is hard to identify who the leader is in relationship.
___ 19. Togetherness is top priority.
___ 20. It is hard to tell who does which household chores.

Most persons have disagreements in their relationships. Using the scale below, please indicate how often you and your partner engage in each of the following:

All the time	Most of the time	More Often Than Not	Occa-sionally	Rarely	Never
1	2	3	4	5	6

___ 1. How often do you discuss or have you considered divorce, separation, or ending your relationship?

___ 2. How often do you or your mate leave the house after a fight?

___ 3. In general, how often do you think that things between you and your partner are going well?

___ 4. Do you confide in your mate?

___ 5. Do you ever regret that you married (or lived together)?

___ 6. How often do you and your partner quarrel?

___ 7. How often do you and your mate "get on each others' nerves" (bother each other)?

	Every day	Almost every day	Occa-sionally	Rarely	Never
8. Do you kiss your mate?	____	____	____	____	____

9. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy", represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.

Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

10. Which of the following statements best describes how you feel about the future of your relationship?

_____ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.

_____ I want very much for my relationship to succeed, and will do all that I can to see that it does.

_____ I want very much for my relationship to succeed, and will do my fair share to see that it does.

_____ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.

_____ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.

_____ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

VIEWS ABOUT LIVING IN NEPAL

Directions: Hassles are irritants that can range from minor annoyances to fairly major pressures, problems or difficulties. They can occur few or many times. Listed below are a number of ways in which a person can feel hassled. FIRST, circle the hassles that have happened to you in the past MONTH. THEN, using the scale below, indicate how SEVERE each of the circled hassles has been for you in the past MONTH. If a hassle did not occur in the last month, DO NOT CIRCLE it.

1	2	3	4	5	6	7
Not at all Severe		Somewhat Severe		Moderately Severe		Extremely Severe

___ 1. Your child(ren)
___ 2. Your parents or parents-in-law
___ 3. Other relatives
___ 4. Your partner
___ 5. Time spent with family
___ 6. Health or well-being of a family member
___ 7. Sex
___ 8. Intimacy
___ 9. Family-related obligations
___ 10. Your friend(s)
___ 11. Fellow workers
___ 12. Clients, customers, patients, etc.
___ 13. Your supervisor or employer
___ 14. The nature of your work
___ 15. Your work load
___ 16. Your job security
___ 17. Meeting deadlines or goals on the job
___ 18. Enough money for necessities (e.g., food, clothing, housing, health care, taxes, insurance)
___ 19. Enough money for education
___ 20. Enough money for emergencies
___ 21. Enough money for extras (e.g., entertainment, recreation, vacations)
___ 22. Financial care for someone who doesn't live with you
___ 23. Investments
___ 24. Your smoking
___ 25. Your drinking
___ 26. Mood-altering drugs
___ 27. Your physical appearance
___ 28. Contraception

1 — Not at all Severe; 2; 3 — Somewhat Severe; 4; 5 — Moderately Severe; 6; 7 — Extremely Severe

___ 29. Exercise(s)
___ 30. Your medical care
___ 31. Your health
___ 32. Your physical abilities
___ 33. The weather
___ 34. News events
___ 35. Your environment (e.g., quality of air, noise level, greenery)
___ 36. Political or social issues
___ 37. Your neighbourhood (e.g., neighbours, setting)
___ 38. Availability of utilities (e.g., electricity, water, gas)
___ 39. Pets
___ 40. Cooking
___ 41. Housework
___ 42. Home repairs
___ 43. Yard work
___ 44. Car maintenance
___ 45. Taking care of paperwork (e.g., paying bills, filling out forms)
___ 46. Home entertainment (e.g., T.V., music, reading)
___ 47. Amount of free time
___ 48. Recreation and entertainment outside the home (e.g., clubs, eating out, walking)
___ 49. Eating (at home)
___ 50. Church or community organizations
___ 51. Legal matters
___ 52. Being organized
___ 53. Social commitments

LASTLY, PLEASE INDICATE HOW SATISFIED YOU ARE WITH EACH OF THE FOLLOWING:

1 — Not at all Satisfied; 2; 3 — Somewhat Satisfied; 4; 5 — Moderately Satisfied; 6; 7 — Very Satisfied

___ 1. Socializing with Nepalis.
___ 2. Interacting with Nepalis on a day-to-day basis
___ 3. Interacting with Nepalis outside of work
___ 4. Speaking with Nepalis
___ 5. Living conditions in general
___ 6. Housing conditions
___ 7. Food
___ 8. Shopping
___ 9. Cost of living
___ 10. Entertainment/recreation facilities and opportunities
___ 11. Health care facilities

Appendix C

UNIVERSITÉ D'OTTAWA
UNIVERSITY OF OTTAWA

ÉCOLE DE PSYCHOLOGIE
SCHOOL OF PSYCHOLOGY

March 14, 1995

Dr. John Hunsley
Centre for Psychological Services
University of Ottawa
INTRA

Dear Dr. Hunsley:

RE: Research Project: "Ex-patriot families in the Third World: Adaptation and Cohesion of Couples Stationed in Nepal"

Following a review of your project by the Human Research Ethics Committee of the School of Psychology, I am pleased to inform you that your project has received full approval (under Category I.A.). Such approval is valid for one year.

We wish you the best in your project.

Sincerely,

Claude Lamontagne, Ph.D.
Chair of the Ethics Committee

CL/jc

145 JEAN-JACQUES-LUSSIER CP 450 SUCC A
OTTAWA ON K1N 6N5 CANADA

145 JEAN-JACQUES LUSSIER PO BOX 450 STN A
OTTAWA ON K1N 6N5 CANADA

(613) 564-4242 • TÉLÉC./FAX: (613) 564-9569

Appendix D

Information Sheet
Sojourner Adjustment Study

The purpose of this present study is to better understand the adaptation process of expatriate couples living in Nepal. This study is an extension of a previous study conducted in 1992 by Dr. John Hunsley, a professor at the School of Psychology of the University of Ottawa, Canada, and his graduate student Susan James-Tanner, a Ph.D. candidate. If you are presently living in Nepal and you live with a spouse/partner most of the time, you are welcome to participate (regardless of whether or not you participated in the previous study).

If you would like to participate in this study, both you and your partner are invited to fill out a questionnaire that takes approximately 40 minutes to complete. The questions ask about such things as your family life in Nepal, your relationship with your partner, and the level of stress you experience. Although this project is endorsed by your agency, you are under no obligation to participate. If you do choose to take part in this study, you may decide not to answer a question that makes you uncomfortable, or you may choose to withdraw from the study at any time without explanation.

Be assured that there are no right or wrong answers, we would just like you to answer the questions honestly. The information that you share will be strictly confidential. Please do not put your name on the questionnaire so that anonymity is ensured. The number at the top of the questionnaire is solely to classify you and your partner as a couple.

If you choose to participate, we ask that each partner independently fill out one of the enclosed questionnaires. However, each partner has the right to choose whether to be involved, regardless of the other person's decision about involvement. Upon completion of the questionnaires, please return each package separately. We appreciate your interest in our study and hope that you decide to participate.

If you have any questions please do not hesitate to call Susan James-Tanner at 521894. Also, if for any reason you become distressed upon completion of the questionnaire and would like to receive a list of therapists in Nepal please call Susan James-Tanner. Please do not return this information sheet - it is yours to keep.

If you wish to receive a summary of the findings of this study upon its completion (approximately in August, 1996) please provide your name and address:_____

_____

_____

And send this slip to: Dr. John Hunsley
School of Psychology
University of Ottawa
Ottawa, Ontario
CANADA K1N 6N5
phone: (613) 562-5800 Extension 4816
fax: (613) 562-5169

Appendix E

Participant Profile

Initiators: 40%
Trailers: 35%
Both on Assignment: 25%
Trailers who are male: 5%

Participants married to each other: 24%
Questionnaires returned: 34%

Country of Origin:
Canada and the United States: 39%
European: 47%
Australia/NZ: 14%

Hassles Affecting Participants

Highest Item Means from Hassles' Scale

35. Environment (quality of air, noise level, greenery) (M = 2.25)
38. Availability of utilities (electricity, water, gas) (M = 1.81)
15. The work load (M = 1.76)
11. Fellow Workers (M = 1.69)
1. Your Children (M = 1.37)
14. The nature of your work (M = 1.33)
47. Amount of free time (M = 1.31)
17. Meeting deadlines or goals on the job (M = 1.24)

Correlations of Demographic variables and exogenous variables with selected measures

Variables	Hassles	PSS	SWLS	DAS	Post Sat
Language Ability	.12	.12	.08	-.06	.17
Age	-.21	-.26	.25	.04	.12
No. Children	-.01	-.12	.22	-.12	-.06
Years as a Couple	-.01	.01	-.06	.00	-.07
No. Countries as Couple	.01	-.19	.15	.08	.18
Years in Nepal	.02	.02	.20	-.30	.25
Voluntary Scale	-.02	-.05	.13	.13	.13

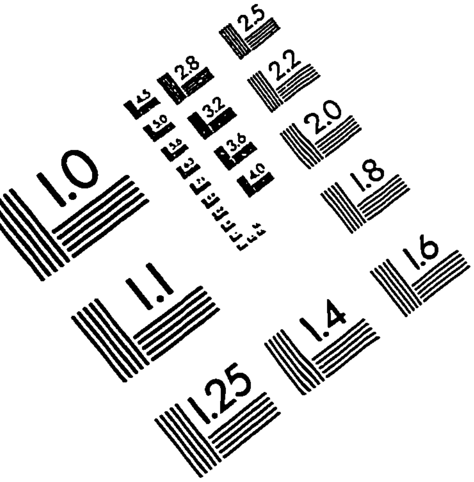
Note: The surprisingly low and negative correlations between number of children and the measures of stress may be because nearly all of the expatriate families hire full-time care takers for their children.

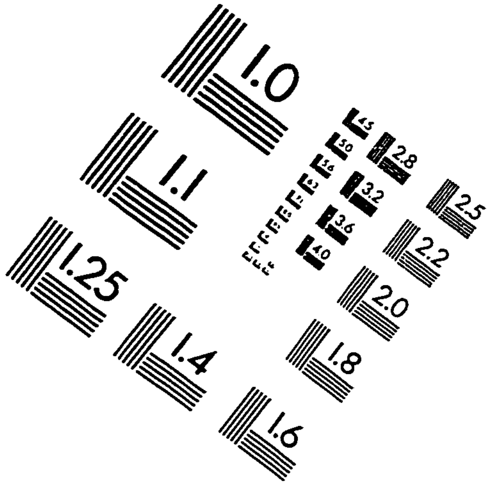
Variable Means as a Function of Outlier Status

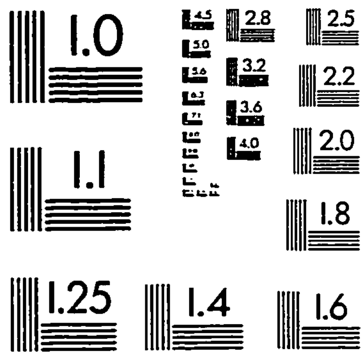
Variable	Outlier Status		p
	Not Outlier	Outlier	
Years total overseas	4.0	2.2	.10
Countries as Couple	2.8	2.4	.15
Years in Nepal	4.7	5.7	.57
Voluntariness	12.7	12.1	.11
Hassles	34.8	41.0	.16
PSS	15.1	14.1	.36
Life Satisfaction	23.3	22.1	.33
Relationship Satisfaction	51.1	50.9	.77
Post Satisfaction	52.0	51.4	.73

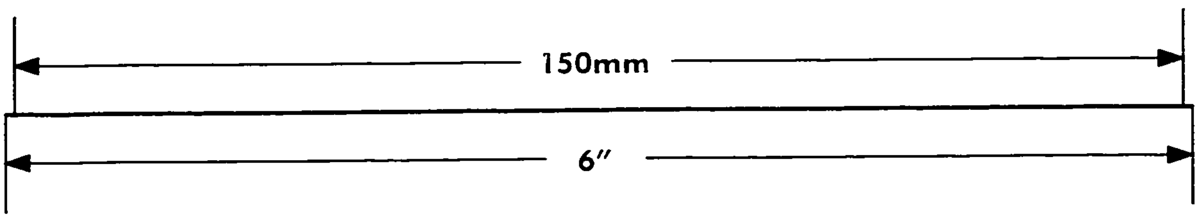
Note. A one-way ANOVA was used to conduct the analysis.

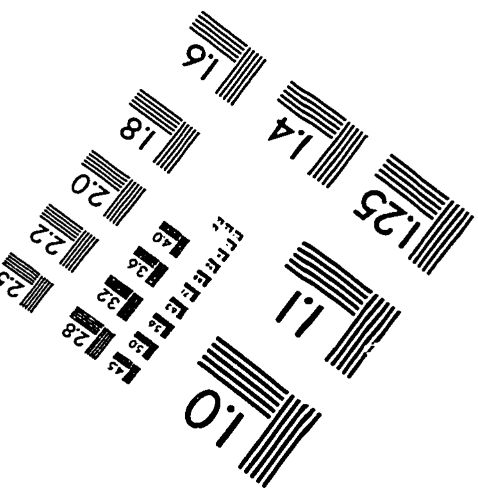
IMAGE EVALUATION TEST TARGET (QA-3)

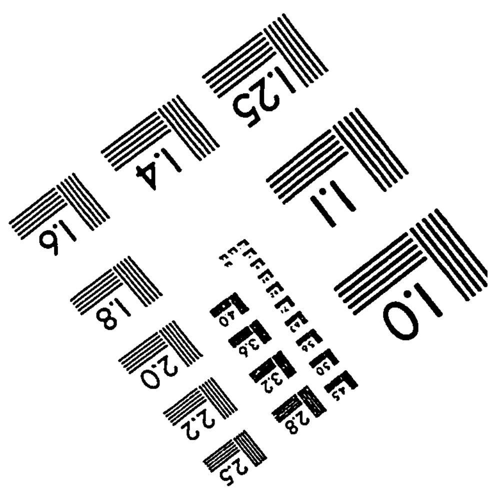












APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989