Stress and coping resources: A study of college student families

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Stress and coping resources: A study of college student families

Chaney, Barbara Jo, Ph.D.

Iowa State University, 1988
Stress and coping resources:
A study of college student families

by

Barbara Jo Chaney

A Dissertation Submitted to the
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GENERAL INTRODUCTION

Extensive theoretical and research efforts have focused on the strategies families use to cope with the stress they experience in their lives, and how stress affects family members and family functioning. It has been suggested that family systems research should focus on "...the environmental context in which the individual family is embedded: its relation to other support systems such as friends, extended family, employment, child care, schools, and health" (Yogman & Brazelton, 1986, p. 3). According to Yogman and Brazelton, "If we view the family as a system interacting with other social systems, we can better understand the influences of stresses and supports on child development" (p. 1).

Married college students and their families have been of interest to researchers for some time (Beutell & Greenhaus, 1982, 1983; Dyk, 1987; Hirsch, 1979; Hooper, 1979; Huston-Hoberg & Strange, 1986; Rice, 1979; Smallwood, 1980; Suitor, 1987; Van Meter & Agronow, 1982). However, many of the studies which have examined stress and coping resources in the college student population have failed to recognize the potential differences between single and married college students in the selection of subjects, instrument development, and/or data analysis (Archer & Lamnin, 1985; Beard, Elmore, & Lange, 1982; Costantini,
Davis, Braun, & Iervolino, 1974; Whitman, Spendlove, & Clark, 1984; Zausmer, Farris, & Zausmer, 1983; Zitzow, 1984). The majority of studies have been interested in returning women students (Berkove, 1979; Beutell & Greenhaus, 1983; Hooper, 1979; Rice, 1979; Smallwood, 1980; Suitor, 1987; Van Meter & Agronow, 1982); much less is known about male college student families. Also, information about the spousal role in college student families is often collected from the students rather than the spouses. Thus, little is known about how the sex of the student in the family impacts on family stress and the use of coping resources.

Of interest of the present study was the exploration and description of stressors, coping resources and characteristics of college student families. Several questions guided the study. First, how do stress levels and personal, family and social support resources vary with regard to family, sex, and student/spouse roles in college student families? Second, what personal, family and social support resources are utilized by these families to cope with stress? And, third, what are the relationships among stress, coping resources, and the characteristics of college student families?

Hill (1949, 1958) provided the earliest conceptual framework for investigating family crisis. Hill's (1958) ABCX family crisis model postulated that the stressor event
(A) interacts with the family's crisis meeting resources (B) and the definition the family makes of the event (C) to produce the crisis (X). Hill's model, and the subsequent expansion of his model to include post-crisis, as well as pre-crisis variables (McCubbin, Boss, Wilson, & Lester, 1980; McCubbin & Patterson, 1981, 1982, 1983), has stimulated extensive research activity in the area of family adaptation to life stress.

The coordination of academic studies with family and work responsibilities appears to be stressful for many college student families (Smallwood, 1980; Van Meter & Agronow, 1982). Pearl in and his associates (Pearlin, 1983, 1985; Pearl in, Lieberman, Menaghan, & Mullan, 1981; Pearl in & Schooler, 1978) have suggested that intrapersonal conflict, which results from an individual's attempts to balance the demands of multiple family, occupational and educational role responsibilities, may contribute to family stress. It has been proposed that family strain is experienced when stressors pile-up (Lavee, McCubbin, & Olson, 1987; McCubbin & Patterson, 1981), and when the perception of a situation as stressful is combined with the perception of insufficient personal and/or support resources for coping with the situation (Cohen, Kamarck, & Mermelstein, 1983; Lazarus, 1966, 1976; McCubbin & Patterson, 1981). Researchers have found that multiple role demands are more stressful for females because of their
primary responsibility for child care and household duties (Huston-Hoberg & Strange, 1986; Pearlin, 1975; Yogev & Brett, 1985).

A review of the literature revealed no studies which have examined family stress, and personal, family and social support coping resources in male and female college student families. In the present study, a questionnaire was developed and mailed to 920 college student families to assess family differences on perceived stress, locus of control, marital satisfaction, social support and family characteristics. A sample of 328 college student families from a midwestern university were considered for data analysis.

Explanation of Dissertation Format

This dissertation contains a review of family stress theory and research (Section I) and an article prepared for publication (Section II). The article contains a review of research pertaining to stress and coping resources in college student families, a description of study procedures, the results of the study, and a discussion of the findings and implications for further research. Tables relevant to the article prepared for publication are presented in Appendix A. Additional appendices include the study instruments, the correspondence used in the study, a coding map of data, and supplementary tables.
SECTION I: FAMILY STRESS COPING RESOURCES:
A LITERATURE REVIEW
REVIEW OF LITERATURE

Introduction

The impact of stress on families has been of interest to researchers and practitioners who work with children and families. Research has linked the effects of stress to various physical (Cohen, 1985; Dohrenwend & Dohrenwend, 1974; Holmes & Rahe, 1967) and psychological (Billings & Moos, 1984a, 1984b; Holmes & Masuda, 1974; Turner, 1983) illnesses. Family development researchers, however, have been more interested in the effects of stress on family functioning and family adaptation to stress.

The concept of stress is a broad one which has developed from several scientific disciplines. Selye (1936) proposed a biochemical definition of stress as the nonspecific result of any demand on the body. Selye's research focused on the physiological adaptations of the body to stressful conditions. Lazarus' (1966, 1976) psychological conceptualization proposed that stress is the result of demands on an individual which exceed the resources available for coping with those demands. An important aspect of the work of Lazarus and others (Cox, 1978; Mikhail, 1985) is the person's cognitive appraisal of the imbalance between demands and resources. Additionally, stress has been defined by the changes in individuals (Holmes & Rahe, 1967) and families (Hill, 1949, 1958) in
response to specific life events. Recently, Lazarus (1984) and others (Kanner, Coyne, Schaefer, & Lazarus, 1981) have been interested in the measurement of daily hassles and uplifts as an alternative approach to life events research.

Family Stress

The earliest conceptualization of family adaptation to stress was provided by Hill's (1949, 1958) ABCX family crisis model. Hill (1958) proposed that the stressor event (the A factor) interacts with the family's crisis meeting resources (the B factor) and the family's definition of the event (the C factor) to produce the crisis (the X factor). Whereas Hill's work focused on the impact of a specific stressor event on family functioning, the effects of the accumulation, or pile-up, of demands has been receiving increased attention in the literature (Lavee, McCubbin & Olson, 1987; McCubbin & Figley, 1983; McCubbin & Patterson, 1982, 1983).

The Double ABCX Model, more recently referred to as the Family Adjustment and Adaptation Response model (Lavee et al., 1987; McCubbin & Patterson, 1983), was proposed by McCubbin and associates (McCubbin, Boss, Wilson, & Lester, 1980; McCubbin & Patterson, 1981, 1982, 1983) to account for post-crisis, as well as pre-crisis, variables. This model proposed that in addition to specific life events, families must adapt to the ongoing, dynamic situations which are
believed to accumulate and have stressful effects on family functioning.

The following five broad categories of stressors have been viewed as contributing to the pile-up of demands which constitute the aA factor in the Double ABCX Model: (1) the stressor event and its hardships; (2) normative transitions; (3) prior strains; (4) the consequences of family efforts to cope; and, (5) social and intrafamily ambiguity (Lavee et al., 1987; McCubbin & Figley, 1983).

Considerable research has been conducted to identify stressful family events and normative transitions. Financial hardships, divorce, death of a family member, and loss of a job are significant life events which have been considered in the literature. Pearlin and Schooler (1978) identified numerous marital, occupational and parental transitions which may be stressful for families. Examples of normative transitions throughout the family life cycle include marriage and the birth of the first and subsequent children. These normative family events are characterized by changes in role responsibilities that require family readjustment. Prior strains include the tension or disequilibrium in families which results from experiencing prior stress or interpersonal conflict (Lavee et al., 1987; McCubbin & Figley, 1983; Pearlin, Lieberman, Menaghan, & Mullan, 1981). Pearlin (1985) suggested that these different types of stressors may evoke coping efforts which
are related to the unique characteristics of the stressors.

Boss (1983) proposed that boundary ambiguity is a stressor for couples as they adjust the changing roles and relationships that are part of the life-span of a marriage. Boss' theory of boundary ambiguity specifies that a boundary exists between a person's perception of who is and who is not included in the family system. Family boundaries are defined by the specific roles and tasks that are performed by members within the family system. Boss has suggested that stress is experienced when there is uncertainty about who is in the family system and about what roles are engaged in by family members. Boundary ambiguity can occur between spouses, between a spouse and the spouse's family of origin, or as a result of transitions over the life cycle of the marriage. Boundary ambiguity is considered to be a significant source of stress in a marital relationship.

Olson, McCubbin, Barnes, Larsen, Muxen, and Wilson (1983) reported the results of their extensive study of stress and coping resources in a sample of 1140 families across the family life cycle. Their findings, which were consistent with previous research results (Menaghan, 1983; Rollins & Galligan, 1978), revealed that marital satisfaction scores across the life cycle are best represented by a curvilinear pattern. Marital satisfaction is highest during the early years of marriage, begins to decline after the birth of the first child, is at its lowest
when the oldest child is an adolescent, and it begins to increase again as the oldest child leaves home.

The gender, age and number of children in the home may also be a source of stress in families. Abbott and Brody (1985) found that the mothers of either two male or two female children, and the group of mothers with male children, reported more conflict in their families, and mothers of young male children reported lower levels of satisfaction with their marriages, when compared to childless wives. Thus, the relationship between marital satisfaction and stress a may vary considerably in response to certain family characteristics and the stage in the family life cycle. The relationship between marital satisfaction and stress, however, is a complex one. Lavee et al. (1987) found that, rather than having a direct effect on marital adjustment, stressful events and transitions intensified intrafamily strains, which then had a negative impact on marital adjustment.

The lack of available support resources, or under-utilization of available support resources is believed to make families more vulnerable to stressful situations (Cassel, 1974, 1976; Gore, 1984; Hirsch, 1979; Hooper, 1979; Husaini, Neff, Newbrough, & Moore, 1982; Leavy, 1983; Turner, 1983). Van Meter and Agronow (1982) reported that role strain was associated with a lack of family emotional support. Research has suggested when support is unwanted,
deemed inappropriate, received at the wrong time, or considered invasive, individuals may perceive the support as having negative, rather than positive, effects on family functioning (Depner, 1984; Husaini et al., 1982; Rook & Dooley, 1985; Shumaker & Brownell, 1984; Shinn, Lehmann, & Wong, 1984; Unger & Powell, 1980; Unger & Wandersman, 1985b).

Coping Resources

When families are challenged by stressors and strains in their lives, they rely on personal, family system and extrafamilial resources to cope with these challenges (Lavee et al., 1987; Pearl, 1985; Pearl & Schooler, 1978). These personal, family and social support resources are included in the bB factor of the Double ABCX Model. When available resources are effectively utilized, they are believed to help families avoid crisis situations by mediating the potentially negative effects of stressors and strains.

An internal locus of control orientation is a personal resource which has been discussed in the literature as a potential moderator of life stress. Based on social learning theory, Rotter (1954, 1966) has proposed that individuals differ in their perception of control over the events in their lives. An internal locus of control is characterized by the perception of control over the outcomes
of events in a person's life. An external locus of control is defined as the belief that external reinforcers, such as luck, chance, fate or powerful others, are responsible for the outcomes of events in a person's life.

It is believed that the behavior of individuals in response to life stress differs as a reflection their locus of control orientation (Dohrenwend & Dohrenwend, 1974, 1984). Johnson and Sarason (1978) reported positive correlations between stress, as measured by the frequency of negative life events, and psychological disorder for external, but not internal, locus of control orientation college students. This finding is consistent with other research which suggests that it is the unexpected nature of certain life events which causes them to be stressful (Johnson & Sarason, 1979; Kobasa, 1979; Maddi & Kobasa, 1984; Pearlin, 1985). Thus, stress may be highest when unexpected, or nonscheduled, events occur to individuals who perceive a lack of control over the outcome of life events.

Sandler and Lakey (1982) replicated Johnson and Sarason's (1978) results with a different college student sample. In addition to assessing students' control perceptions, they were interested in determining whether the types of life events experienced by internals and externals differed significantly. Although the internals and externals in their study did not differ significantly in the types of life events they experienced, Sandler and Lakey, as
well as other researchers (Johnson & Sarason, 1978; Kobasa, 1979; Lefcourt, 1984), have concluded that internals may experience less stress as a result of their perception of control over negative life events. Thus, the perception of control over the outcome of life events has been viewed as a personal resource for coping with stressful life situations.

Recent research has viewed locus of control as a multidimensional, rather than a unidimensional, construct (Galejs, Pease & Wolins, 1984). Pearl et al. (1981) reported that high self-esteem and a sense mastery over life events are personal resources which were associated with more effective coping strategies. Kobasa (1979) found that hardiness is an attribute which distinguished high stress-low illness executives from high stress-high illness executives. Hardiness has been defined as a personality style that is characterized by commitment, control and challenge (Kobasa, 1979; Maddi & Kobasa, 1984). Husaini, Neff, Newbrough, and Moore (1982) reported that personal competence is an internal resource which had a buffering effect on life stress. The subjects in their study who reported high stress, as measured by life events, and who were low on personal competence, reported more depressive symptoms. The more competent individuals reported fewer depressive symptoms when exposed to more life events than did the less competent individuals.

The strengths of the family system are viewed as
resources which make families less vulnerable to the negative effects of stress (Lavee et al., 1987; Pearlin, 1985; Pearlin & Schooler, 1978). Marital satisfaction, or marital adjustment, is a family system strength which has been examined in the literature. It has been suggested that there is a positive relationship between marital adjustment and effective family functioning (Olson et al., 1983). Husaini et al. (1982) found that marital satisfaction was a significant predictor of depressive symptoms. Individuals with higher marital satisfaction reported fewer depressive symptoms. In the Olson et al. study (1983), the families who reported higher marital and family satisfaction were under less stress than the less satisfied families. In addition, there was a positive relationship between high satisfaction and high family strengths and resources.

Spousal support, as it relates to stress and marital satisfaction, has also been examined as a family system resource. Gender differences have been reported in the literature, and in general, women have reported receiving more emotional and social support than men (Caldwell & Bloom 1982; Hirsch, 1979; Stokes & Wilson, 1984; Vaux, 1985). Men, however, more often report that their wives are their primary source of support, whereas women more often report that they receive more support from friends (Bell, 1981; Huston-Hoberg & Strange, 1986; Vaux, 1985).

The coordination of family, work and educational roles
may be more stressful for wives than for husbands. As the number of women who work outside the home has increased, societal acceptance of egalitarian role sharing has also increased. However, recent research has indicated that even when some spousal child care and household duties support is available from husbands, women continue to assume the majority of home and child care responsibilities (Bahr, 1974; Berardo, Shehan, & Leslie, 1987; Hoffman, 1977; Lamb, 1982; Moen, 1982; Rexroat & Shehan, 1987; Yogev & Brett, 1985). Pearl in (1975) found that the higher the conflict between occupational and familial roles, the more likely women were to be depressed. Role conflict was greatest in Pearl in's study for women who had the most invested in their work.

A third category of resources which make up the bB factor in the Double ABCX Model involves the support which is available from extended family, friends and neighbors. Cassel (1974) and others (Caplan, 1974; Cobb, 1976; LaRocco, House, & French, 1981; McCubbin & Figley, 1983; Unger & Powell, 1980; Unger & Wandersman, 1985b; Wilcox, 1981) have proposed that social support protects or buffers individuals and families from the consequences of stressful life events. The moderating effects of social support have been found to play a significant role in the prevention and recovery of physical and mental illnesses (Cassel, 1976; Cobb, 1976; Dean & Lin, 1977; Schaefer, Coyne & Lazarus, 1981), and in
the enhancement of effective family relationships (Pearlin et al., 1981; Turner, 1983; Unger & Powell, 1980).

Social support theorists initially proposed a unidirectional model of social support which conceptualized that support was provided to families by extended family, friends, neighbors and agencies. Recently, an expanded view of social support, which has recognized the reciprocal relationships among network members (Bott, 1964; Gottlieb, 1981), has led to the investigation of the relationships among social support resources and effective family, neighborhood and work relationships (Gottlieb, 1981; Whittaker & Garbarino, 1983; Unger & Wandersman, 1985a; Unger & Wandersman, 1985b).

It appears that personal, family and social support resources may have interactive effects, as well as direct effects, on stress levels. For instance, Sandler and Lakey (1982) reported that the interactive relationship between locus of control orientation and social support accounted for the differences between internal and external locus of control college students in their responses to life stress. Social support acted as a moderator of stress for internals, but not externals, even though externals received more support. Sandler and Lakey's conclusions were consistent with previous studies which reported that internals more effectively utilized information and support, and exhibited more task-oriented coping behaviors under

In a large scale study by Husaini et al. (1982), the stress-buffering properties of personal competence and social support were assessed by interviewing a random sample of 965 married subjects. Support was provided for the interactive effects of personal competence and social support as buffers of life stress. They reported that lower levels of support were associated with increased vulnerability to stress among lower competence individuals. When personal competence was higher, they found that social support had little effect as a moderator of life stress. Husaini et al. concluded that, when individuals lack in the internal resource of personal competence, they rely more on social support resources in order to cope with life stress. Dean and Ensel (1982) found that greater personal competence in males was associated with lower depression scores; however, for females, personal competence was found to indirectly affect depression through its effect on social support.

Hill (1949) proposed that it is the family's definition of an event as stressful (the C factor) which sets into motion the use of coping strategies. McCubbin and Patterson (1982, 1983) expanded this notion by proposing that it is the family's definition of the total situation (the cC factor in the Double ABCX Model) which is critical
to family adaptation. Their definition included the family's assessment of the stressor event, as well as the family's assessment of additional demands, available resources, and possible coping strategies. Lavee et al. (1987) proposed that a family's perception that the demands are under their control leads to increased well-being.

Recently, Lavee et al. (1987) tested a multivariate model of the effects of life events and transitions, intrafamily strain, marital adjustment, and appraisal of well-being in an attempt to explain more clearly the direct and interactive relationships which affect family functioning. Results of this study suggested that intrapersonal role demands are internal factors which must be considered in the prediction of family stress. In contrast to the Double ABCX Model, which viewed that the pile-up of demands initiated the coping process, the Lavee et al. results suggested that the stress-coping process is event initiated. In addition, stressful life events and transitions were found to have an indirect effect, rather than a direct effect, on family well-being. Thus, stressful life events and transitions had an indirect negative effect on marital adjustment and family well-being through their direct effect on intrafamily strain.

It appears that the relationships among family stress and coping resources are complex ones. From a review of the literature, it could be predicted that families who
effectively utilize their available personal, family system and social support resources will more easily adapt to the expected and unexpected demands of their daily lives.
REFERENCES CITED


SECTION II: STRESS AND COPING RESOURCES: A STUDY OF COLLEGE STUDENT FAMILIES
INTRODUCTION

This study investigated the extent to which male and female college student families experience stress in their lives, and the extent to which these families utilize personal, family system and social support resources for coping with family stress. Previous research has suggested that the role demands which are part of the academic environment, when combined with family and work responsibilities, may contribute to increased family strain (Pearlin, 1985; Pearlin & Schooler, 1978). However, little is known about family stress and coping resources in college student families.

Most studies of stress and coping resources in college student families have focused on the role conflicts of returning, or nontraditional women (Hooper, 1979; Roehl & Okum, 1984; Smallwood, 1980; Suitor, 1987); much less is known about male college student families. In addition, few studies have compared male and female college student families. Often, when college student families have been studied, spouses' data was collected from the students, rather than from the spouses (Beutell & O'Hare, 1987; Huston-Hoberg & Strange, 1986; Van Meter & Agronow, 1982). Thus, little is known about how the sex of the student in the family impacts on family stress and coping resources.

Several theoretical models have guided the extensive
body of research on family stress and coping resources. The Double ABCX model, proposed by McCubbin and Patterson (1981), provided the theoretical foundation for this study. According to this model, nonnormative life events and normative family transitions are viewed as stressors which may accumulate, or pileup, over time. This model proposed that family strain is experienced when a family's perception of a situation as stressful is combined with the perception of insufficient personal, family and/or social support resources for coping with the situation (Cohen, Kamarck, & Mermelstein, 1983; Lazarus, 1966, 1976; McCubbin & Patterson, 1981). Additionally, this model proposed that it is the perception of the total situation as stressful, rather than a specific stressful event, that initiates the use of coping resources. However, Lavee, McCubbin and Olson (1987) found that the stress-coping relationship was initiated by specific life events. Thus, more research is needed to clarify the complex relationships among stressful life situations and the use of coping resources.

A source of family strain which has received considerable attention is the intrapersonal conflict which results from multiple role responsibilities (Pearlin, 1983, 1985). Pearlin has suggested that an individual's efforts to balance the demands of multiple family, occupational and educational role responsibilities may cause intrapersonal conflict. It has been proposed that family strain may occur
when intrapersonal role conflict is combined with a lack of coping resources, or when resources are ineffective in reducing the stress from multiple role demands (Pearlin, 1983, 1985). Role overload is often the greatest for those who have the most invested in their roles (Marks, 1977; Pearlin, 1985). Previous research has suggested that multiple role demands are more stressful for wives, than for husbands, because of wives' primary responsibility for child care and household duties (Berardo, Shehan, & Leslie, 1987; Pearlin, 1975; Pearlin & Schooler, 1979; Rexroat & Shehan, 1987; Yogev & Brett, 1985). In addition, the highest stress may be experienced by wives when their own, and their husbands' family, occupational and educational roles require a high investment of time and energy (Marks, 1977).

Research has found that the effective utilization of personal, family system and social support resources mediates the negative effects of stress by helping families avoid crisis situations (Cobb, 1976; Dean & Lin, 1977; Gore, 1984; Husaini, Neff, Newbrough, & Moore, 1982; Lefcourt, 1984; Menaghan, 1983; Sandler & Lakey, 1982). However, there are mixed findings with regard to the direct, indirect and interactive effects of the coping strategies on family stress (Cobb, 1976; Dean & Lin, 1977; Gore, 1984; Husaini et al., 1982; Turner, 1983; Wilcox, 1981).

Several personality characteristics have been examined as personal resources which have moderating effects on life
stress (Johnson & Sarason, 1978; Kobasa, 1979; Pearlin, Lieberman, Menaghan, & Mullan, 1981). Researchers have reported positive relationships between life stress and psychological disorder for internal, but not external, locus of control college students (Johnson & Sarason, 1978; Sandler & Lakey, 1982). Results of previous studies have suggested that individuals who have an internal locus of control orientation may experience less stress as a result of their perception of control over negative life events (Johnson & Sarason, 1978; Lefcourt, 1984; Kobasa, 1979; Sandler & Lakey, 1982), their more effective use of available support resources, and their use of more task-oriented coping behaviors under stressful conditions (Sandler & Lakey, 1982).

Some researchers have proposed that locus of control is a multidimensional, rather than a unidimensional, construct (Galejs, Pease & Wolins, 1984). Pearlin et al. (1981) reported that high self-esteem and a sense of mastery over life events are personal resources which were associated with more effective coping strategies. Kobasa (1979) has investigated the personal resource of hardiness, which was defined as a personality style that is characterized by commitment, control and challenge. Personal competence is an internal resource which has also been reported as a buffer for life stress (Dean & Ensel, 1982; Husaini et al., 1982).
The marital relationship is family system resource which may be used by families to cope with stress. The negative relationships which have been reported in the literature between stress and marital satisfaction have provided some support for this hypothesis (Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1983; Pearl, 1975; Rollins & Galligan, 1978). Married female college students have also reported higher stress levels when they were less satisfied with their marriages (Berkove, 1979). However, Kahn and Sharpley (1980) reported that the marital satisfaction scores of college student families were not significantly different from the marital satisfaction scores found in the general population.

Spousal support has appeared to be a critical family system resource for college student families. Spousal emotional, child care and household duties support have been associated with lower stress levels for married female college students (Berkove, 1979; Beutell & Greenhaus, 1983; Rice, 1979). Results of a study which included married male and female college students who had returned to school showed that female spouses were more emotionally supportive of their husband's return to school than male students were of their wife's return to school (Huston-Hoberg & Strange, 1986). However, the results were based on reports from the students regarding their perceptions of spousal support.

Previous research has reported that the spouses of
married male college students were more supportive of their husbands than the spouses of married female college students (Berkove, 1979; Hirsch, 1979), which may account for Berkove's finding that the married female college students relied more on friends and classmates for support. When spousal emotional support (Berkove, 1979; Rice, 1979), household duties support (Huston-Hoberg & Strange, 1986), and financial support (Berkove, 1979) were high, married female college students were found to experience fewer home-nonhome conflicts (Beutell & Greenhaus, 1983), and less guilt (Hooper, 1979).

One form of spousal support which has received considerable attention is the sharing of child care and household duties. Although there is more societal acceptance for sharing of household duties, recent research has indicated that wives continue to assume primary responsibility for child care and household tasks (Berardo, Shehan, & Leslie, 1987; Rexroat & Shehan, 1987). Yogev and Brett (1985) reported a significant relationship between marital satisfaction and perception of the division of household duties. Wives in the Berkove (1979) study had lower levels of stress when their husbands reported nontraditional sex-role attitudes, and when they were involved in many household tasks. Rice (1979) reported that married female college students who had nontraditional sex-role orientations anticipated more spousal child care
and household duties support than the more traditional females; however, the two groups did not differ in the actual amount of spousal support which was received.

Social support from extended family and friends is also viewed as a coping resource for families under stress (McCubbin & Figley, 1983; Unger & Powell, 1980; Unger & Wandersman, 1985). Van Meter and Agronow (1982) reported that role strain was associated with a lack of family emotional support for female married college students. They also found that support from extended family members was contingent on making the family role their first priority. Suitor (1987) investigated the status similarity of mother-daughter relationships for a sample of nontraditional daughters (age 25 or older) who were college freshman. Although the well-educated mothers' attitudes toward daughters enrollment was described as more positive than the attitudes of less-educated mothers, mothers' educational level was not significantly related to provision of instrumental support or frequency of mother-daughter interaction. Well-educated mothers, however, were more likely to be used as confidants.

Unger and Wandersman (1985) have suggested that friends and neighbors may be supportive resources which mediate the negative effects of family stress. However, several researchers have reported sex differences in stress-buffering effects of family, friends and neighbors as
support resources. Integrated, high density social networks among family members have been found to be more effective support resources for females; however, males have been found to be supported more effectively by larger, more diverse social networks which include friends and co-workers (Hirsch, 1979; Leavy, 1983).

The present study was designed to investigate stress and coping resources in male and female college student families. Based on the literature reviewed, it was predicted that families will experience less stress when family members have a perception of control over life events, when couples are more satisfied with their marriages, and when spousal and social support resources are effectively utilized. However, this study was exploratory in nature, because little information was available to guide the predictions regarding the possible interactions between the the sex of student in the family relative to family stress and coping resources.

College students and their spouses were asked to respond to questionnaires which assessed stress, locus of control, marital satisfaction, social support, and satisfaction with housing, neighborhood and leisure time. Responses from students and spouses were treated as repeated measures. Thus the college student couple was the unit of analysis.
Specifically, the objectives of the present study were to:

1. Investigate the differences between male and female college student families on stress and the following coping resources: locus of control, marital satisfaction and social support.

2. Explore the relationships among stress; the coping resources of locus of control, marital satisfaction and social support; and, certain demographic characteristics of college students and their families.
METHOD

Subjects

A total of 328 married couples were considered for data analysis in this study. The sample consisted of 240 undergraduate and 88 graduate students from a midwestern university and their spouses. There were 133 male student couples and 195 female student couples in the sample. In the student sample there were 20 freshmen (6%), 35 sophomore (11%), 74 junior (23%), 111 senior (34%) and 88 graduate (27%) students with a wide variety of majors. Students were enrolled for an average of 11 semester hours of college credit and had a mean reported cumulative grade point average of 3.00 to 3.49. All categories of grade point averages were represented (i.e., from "below 2.00 -2.49" to "3.50-4.00"); 77% of female college students, compared to 59% of male college students, were represented in the highest two grade point categories.

Subjects ranged in age from 18 to 68 years (M = 32). Couples had been married from 1 to 40 years (M = 10). A total of 229 families (70%) had children living at home. Families with children included 60 families (26%) who had one child, 116 families (51%) who had two children, 42 families (18%) who had three children, and 11 families (5%) had four or more children living at home.

Of the families with young children living at home
(i.e., infant and preschool-age children), 38% were male student families and 22% were female student families. Male (46%) and female (45%) student families had approximately the same percentage of elementary-age children living at home. Of the families with older children living at home (i.e., junior high, high school and college-age children), 7% were male student families and 32% were female student families. A total of 43% of the young children in male student families and 17% of the young children in female student families were cared for by their parents during the day. Of the young children who were cared for during the day by a babysitter, family day care home, or day care/preschool center, 46% were young children from male student families and 74% were young children from female student families.

Family monthly income ranged from $200 to $9,999 (M = $1810). The Hollingshead Two-Factor Index of Social Position (Hollingshead, 1957) was used to determine socioeconomic status (SES). For consistency, SES was based on the educational and occupational level of the fathers of the male students and male spouses. Hollingshead's five classes were represented in the sample, and SES scores from highest to lowest, ranged from 11 (Class I) to 70 (Class V) with a mean score of 44 (Class III). Students worked an average of 27 hours a week and spouses worked an average of 43 hours a week. Family income was derived from a
combination of income sources. Male student families reported the following major sources of income: 71% from the student's job, 82% from their spouse's job, 25% from savings, 32% from loans, 14% from scholarships and 5% from social services. Female student families reported the following major sources of income: 50% from the student's job, 91% from their spouses' job, 21% from savings, 18% from loans, 8% from scholarships, and 2% from social services. A total of 64% of female student families owned their own homes, compared to 41% of the male student families. Of the families who lived in university apartments, 25% were male student families, compared to 7% of female student families.

Instruments

The 14-item Perceived Stress Scale (PSS), developed by Cohen, Kamarck & Mermelstein (1983), was used to assess the degree to which the subjects regarded their recent life situations (i.e., during the past month) as unpredictable, uncontrollable and overloading. A 0 to 4 scale (0 = never to 4 = very often) was used for rating the PSS items. A range of scores from 0 to 56 was possible, with a high score indicating a high level of stress. Cohen et al. used two college student samples (n = 332, n = 114), and a sample of 64 adults (M = 38 years of age) who were enrolled in a smoking-cessation program, for the development of the PSS. Reliability estimates for the PSS ranged from .84 to .86.
Locus of control was measured by the 41-item Personal Reaction Scale (PRS) developed by Galejs, Pease and Wolins (1984). The PRS yielded scores for the following six factors: Fate, Social-self, Personal-self, Self-determination, Luck and Powerlessness. A factor analysis was conducted by Galejs et al. with 150 female college students, their parents and 39 parents of preschool children as subjects. Factor reliabilities ranged from .34 for Powerlessness to .75 for Personal-self. Galejs et al. used a 1 to 99 rating for their scale development; however, subjects in the present study used a 1 to 5 scale for rating the extent to which they believed the PRS statements.

Marital satisfaction was measured by the 10-item dyadic satisfaction subscale of the Dyadic Adjustment Scale (DAS) (Spanier, 1976). Eight of the ten items used a 0 to 5 rating scale, one item used a 0 to 4 rating scale and one item used a 0 to 6 rating scale. A range of scores from 0 to 50 was possible, with a high score indicating a high degree of marital satisfaction. Since the DAS was intended as an assessment of any type of dyadic relationship, word changes were made that did not alter the meaning of the items (e.g., "mate" was changed to "spouse" and "relationship" was changed to "marriage"). Spanier used a sample of 218 married persons and approximately 400 divorced persons for the scale development. The reliability estimate for the dyadic satisfaction subscale was .94, and Spanier
reported acceptable content validity, criterion-related validity and construct validity for the DAS, which is a widely used measure of marital adjustment.

Items were developed by the researcher, in consultation with other child developmentalists, to assess housing, neighborhood and leisure time satisfaction. Social support items, adapted from the literature, assessed support type, support source, frequency of support, and social support satisfaction. Items were also developed which assessed couple's division of household duties. In addition, student stress items were developed to assess the extent to which family, social and college-related problems interfered with students' ability to attend class and complete assignments. Student stress items were developed from the following two sources: (1) a review of the student stress literature, and (2) information provided by five college student couples who were not subjects in the present study. These couples were asked to list the of problems that caused them stress, and to the list the coping resources which were helpful to them in dealing with the stress in their lives. Because aspects of the present study were exploratory in nature, subjects also were asked to respond to the open-ended question "What are the 3 most significant things that have helped you cope with the many responsibilities faced by college student families?".

Students and spouses were asked to complete
questionnaires which measured perceived stress, locus of control, marital satisfaction, social support, and housing, neighborhood and leisure time satisfaction. Students were asked to provide individual and family demographic information (i.e., family income, sources of income, number of people living in the home, number and ages of children, and child care arrangements) and were asked to rate the student stress items. Spouses were asked to provide individual demographic information.

Procedure

The Registrar's Office at a midwestern university provided two sets of computer generated mailing labels for the selected families. A total of 920 married students who enrolled for 6 semester hours or more, and their spouses, were invited to participate in the study. Of this sample, 723 students were undergraduate (79%) and 197 were graduate (21%) students. A total of 388 male students and their female spouses (42%), and 532 female students and their male spouses (58%) were included in this group.

An informational letter which described the purpose of the study, two questionnaires, and a postage-paid, pre-addressed envelope were mailed to the selected couples during the Spring, 1987 semester. The mailing labels on the envelopes were addressed to the selected students. The questionnaires were color coded and clearly labeled for
student and spouse. To protect the subjects' confidentiality, no identifying numbers were used on the questionnaires or envelopes. Two weeks after the initial mailing, a postcard was mailed to each of the 920 families who were initially contacted to remind them to return their questionnaires. University bulk mail was used to reduce the high cost of postage for the large sample size, so it was not possible to determine the number of questionnaires or postcards which were received by the selected families.

A total of 358 couples returned their questionnaires. Questionnaires from 30 couples were excluded from the study due to incomplete data, divorce, or unavailability of the spouse. The statistical analysis was based on the 328 families who returned completed questionnaires.

**Scoring and Analysis**

A data set was created which included the original variables. Means, standard deviations, and correlations were computed for all variables. Data reduction is described below.

The data were collected with the college students as the selected subjects, and the data for each student and spouse pair was coded as one case. A total of 328 cases were considered for data analysis. No significant relationships were found for year in college and any of the major variables; therefore, the data for undergraduate and
graduate students were combined for analysis.

A total of 30 subjects in the spouse group indicated that they were also enrolled in college. Means were computed for the total spouse group (n = 328), and the spouse group with the 30 subjects excluded who were also enrolled in college (n = 298). A comparison of the two groups revealed that the means were approximately the same with regard to demographic characteristics and responses to the stress, locus of control, marital satisfaction and social support instruments. Because it did not appear that the data from families in which spouses were also enrolled in college contaminated the study, these families were included in the data analysis.

A 0 to 4 scale (0 = never to 4 = very often) was used for rating the 14-item Perceived Stress Scale (Cohen et al., 1983). A factor analysis was performed on the perceived stress items for the total sample (N = 656). Items which loaded on the second and third factors also loaded on the first factor, so the Perceived Stress Scale was considered as one variable in the analysis. The seven negatively stated questions were transformed by multiplying each rating by -1 and then adding 4 to each rating. A total stress score was computed by summing the 14 ratings. A range of scores from 0 to 56 was possible.

A 1 to 5 scale (1 = strongly do not believe to 5 = strongly do believe) was used to rate the 41 locus of
control items included in the Personal Reaction Scale (PRS) (Galejs et al., 1984). A factor analysis was performed on the 41 PRS items. The factor analytic procedure utilized was iterative least squares and the rotation procedure was varimax. Inspection of the factor loadings for male students, female students, male spouses, and female spouses revealed that these groups were responding to the PRS items in a similar way. Thus, a factor analysis on the total sample (N = 656) was performed. The following four factors emerged from the analysis: Fate, Luck, Personal Efficacy and Personal Competence. It is believed that the factor analysis in this study yielded different factors than the six factors found by Galejs et al. (1984), because the present study contained a more homogeneous sample than the Galejs et al. study.

The Fate factor contained eight items which assessed the extent to which subjects believed that the outcomes of life events are controlled by others. One item which loaded on the Fate factor was excluded from the factor because it was not consistent with the content of the other items included in the Fate factor. The six items which loaded on the Luck factor assessed the extent to which subjects believed that chance happenings determine the outcomes of events. An optimistic expectation that individuals can be effective in their interpersonal relationships was emphasized in the seven items which were included in the
Personal Efficacy factor. The Personal Competence factor contained seven items which assessed the extent to which subjects believed that an individual's control, or sense of mastery determined the outcomes life events.

Factor scores were computed by summing the items which loaded positively and subtracting the items which loaded negatively on each factor. The four PRS factors, the number of items in each factor, the loading range of each factor, and the factor reliability estimates are presented in Table 1.

Insert Table 1 about here

The 10-item dyadic satisfaction subscale of the Dyadic Adjustment Scale (Spanier, 1976) was used to assess marital satisfaction. Items one through seven utilized a 0 to 5 scale (0 = all of the time to 5 = never). Item eight used a 0 to 4 scale (0 = never to 4 = every day), item nine used a 0 to 6 scale (0 = extremely unhappy to 6 = perfect), and item 10 used a 0 to 5 scale (0 = "My marriage can never succeed, and there is no more that I can do to keep the marriage going" to 5 = "I want desperately for my marriage to succeed, and would go to almost any length to see that it does"). The ratings of the two positively stated items (i.e., items 3 and 4) were reversed by multiplying each
rating by -1 and adding 5 to each rating. Scale scores were computed by summing the 10 ratings.

Subjects used a 0 to 5 scale (0 = never to 5 = about every day) to rate the frequency of social support received during the current semester from six support sources (i.e., spouse, parents, in-laws, other relatives, neighbors, and friends). Frequency and source of support were indicated for five types of support (i.e., child care, household duties, financial assistance, advice/counseling, and emotional support). The interitem correlations for students' and spouses' reports of social support were sporadic and few reached significance. Thus, support items were considered individually for data analysis.

Subjects indicated their satisfaction with the social support they had received during the current semester by using a 1 to 5 scale (1 = very dissatisfied to 5 = very satisfied) to rate their satisfaction with five support sources (i.e., spouse, parents, in-laws, other relatives, neighbors, and friends). Missing data for these items ranged from 14% to 40% of the sample for the student group and 5% to 47% of the spouse group. Thus, the validity of these ratings was questioned.

A 6-point scale (1 = never to 6 = all of the time) was used by students to rate 13 school interference items and 12 potential school problem items that were believed to be related to stress levels. A total of 67 of the 78 school
interference intercorrelations, 59 of the 66 school problem intercorrelations and 92 of the 156 school interference with school problem correlations were significant at or beyond the .01 level. As a result of the low frequency of responses to four of the interference items, and one of the school problem items, these items were dropped from further analysis. A factor analysis was performed on the remaining 20 school interference and school problem items. The factor analytic procedure utilized was iterative least squares and the rotation procedure was varimax.

Five student stress factors emerged from the analysis: Family Responsibilities, School Administration, Grades, Social Problems, and Transportation. Items loading on Family Responsibilities included household duties and family obligations. Items loading on the School Administration factor dealt with getting into college classes and the availability of help from school personnel. Items loading on the Grades factor included understanding assignments, taking tests and getting good grades. Items loading on the Social Problems factor included personal and family worries and problems. Items loading on the Transportation factor dealt with commuting to college and transportation problems. The student stress factors, the number of items in each factor, the loading range of each factor and factor reliability estimates are presented in Table 2. Reliability estimates for the student stress factors tend to be
Spousal division of household duties was assessed by the question "In the past month, how have the following duties been handled in your household?" A total of 11 household duties were rated using the following scale: 1 = primarily by self; 2 = about 2/3 by self and 1/3 by spouse; 3 = about half by self and half by spouse; 4 = about 1/3 by self and 2/3 by spouse; and, 5 = primarily by spouse.

Positive interitem correlations for males' and females' report of the proportion of division of household duties performed by their themselves and their spouses revealed that 42 of the 110 correlations for males, and 46 of the 110 correlations for females, were significant (p < .01). As expected, when males' and females' ratings were correlated with each other, the 82 significant (p < .01), out of a possible 242 correlations were all in the negative direction.

Plotting of the means by sex of subject revealed two clusters of items; one cluster of seven items typically considered to be feminine household duties (e.g., cooking, laundry) and one cluster of three items typically considered
to be masculine duties (e.g., household and car repairs). The item "taking care of finances" did not fall clearly into either cluster and it was dropped from the analysis. Three additional items were dropped from the analysis; the "child care" and "yard work" items had a limited number of respondents and the "other shopping" item added little additional information to the study.

The variables HDFEM (i.e., the student's report of feminine duties) and SHDFEM (i.e., the spouses's report of feminine duties) were created by summing the ratings for the remaining five feminine items. The HDFEM and SHDFEM variables included the following duties: cooking, dishes, laundry, housecleaning, and grocery shopping. A range of scores from 5 to 25 was possible for the HDFEM and SHDFEM variables. The variables HDMASC (i.e., the student's report of masculine duties) and SHDMASC (i.e., the spouse's report of masculine duties) were created by summing the remaining two items. The HDMASC and SHDMASC variables included household repairs and car maintenance and repairs. A range of scores from 2 to 10 was possible for the HDMASC and SHDMASC variables. Since a low rating by students and a high rating by spouses would both indicate that the household duty was performed primarily by the student, spouses' scores on the SDHFEM and SHDMASC variables were transformed for easier comparison of the means. SHDFEM scores were transformed by multiplying by -1 and adding 30.
SHDMASC scores were transformed by multiplying by -1 and adding 12.

Subjects rated their satisfaction with leisure time by using a 1 to 5 (1 = very dissatisfied to 5 = very satisfied) scale to rate four items (i.e., time for self, family, friends, and things I like to do). The six interitem correlations revealed that the four items were significantly correlated for students (r = .40 to r = .57, p < .0001) and spouses (r = .37 to r = .60, p < .0001), and the following two variables were computed: TIME (i.e., student's satisfaction with leisure time) and STIME (i.e., spouse's satisfaction with leisure time). A range of scores from 4 to 20 was possible for the TIME and STIME variables.

A 1 to 5 scale (1 = very dissatisfied to 5 = very satisfied) scale was used by subjects to rate their satisfaction with their housing and neighborhood. Interitem correlations showed that housing and neighborhood satisfaction ratings were significantly related for students (r = .61, p < .0001) and spouses (r = .66, p < .0001). Thus, an environmental satisfaction variable was computed by summing the housing and neighborhood satisfaction ratings.

Responses to the open-ended responses to the question "What are the three most significant things that have helped you cope with the many responsibilities faced by college student families?" were read by the researcher to determine a classification for coding the responses. The following
categories of responses were developed for analysis: self, spouse, family, friends, advisors/professors, religion financial security, stress relievers, organization and management, and other.
RESULTS
Correlations

Pearson product-moment correlations were computed to explore the relationships among perceived stress, student stress, locus of control, marital satisfaction, social support, environmental satisfaction, leisure time satisfaction, masculine and feminine household duties, and demographic characteristics. Due to the large sample size (N = 328 couples), only correlations which reached significance at or beyond the .01 level are considered in the results and discussion. Means, standard deviations and correlations for selected students' and spouses' variables appear in Table 3.

Insert Table 3 about here

The correlations showed that students' perceived stress and all five of the student stress factors (i.e., Family Responsibilities, School Administration, Grades, Social Problems, and Transportation) were positively related (p < .0001). The means showed that male students were higher than female students on School Administration (M = 8.10, males; M = 7.39, females) and Social Problems (M = 12.29, males; M = 11.69, females). Female students
were higher than male students on Family Responsibilities (M = 10.10, females; M = 9.62, males) and Transportation (M = 3.80, females; M = 3.61, males).

Negative relationships were found between perceived stress and leisure time satisfaction for students (p < .0001) and spouses (p < .0001), and between perceived stress and environmental satisfaction for students (p < .0001) and spouses (p < .001). Also, negative relationships were found between students' satisfaction with leisure time and all five of the student stress factors (i.e., Family Responsibilities, School Administration, Grades, Social Problems, and Transportation).

Significant negative correlations were obtained between perceived stress and marital satisfaction for students (p < .0001) and spouses (p < .0001), and high agreement was found between students' and spouses' marital satisfaction scores (p < .0001). Negative relationships were obtained between students' marital satisfaction and the following four of the five student stress factors: School Administration (p < .0001), Grades (p < .01), Social Problems (p < .0001), and Transportation (p < .001). When the student stress factors were correlated with spouses' marital satisfaction scores, significant negative relationships were found between spouses' marital satisfaction and the Social Problems (p < .0001), and the Transportation (p < .001) factors. A positive relationship
was found between marital satisfaction and leisure time satisfaction for students \( (p < .001) \) and spouses \( (p < .01) \). Few of the correlations for the locus of control factors were significant. Significant positive relationships were found between perceived stress and the Fate factor for students \( (p < .0001) \) and spouses \( (p < .0001) \). The Fate and Luck factors were negatively correlated for students \( (p < .0001) \) and spouses \( (p < .01) \), as were the Fate and Personal Efficacy factors for students \( (p < .01) \) and spouses \( (p < .01) \). Correlations showed agreement between students and spouses on the Fate \( (p < .0001) \) and Luck \( (p < .0001) \) factors. For students, the Fate factor and grade point average were negatively correlated \( (p < .001) \).

Inspection of the means for the frequency of social support received during the semester from six sources of support (i.e., spouse, parents, in-laws, other relatives, neighbors, and friends) for five types of support (i.e., child care, household duties, financial assistance, advice/counseling, and emotional support) showed a consistent pattern for students and spouses. Only 7 of the 30 means were larger than 1 (i.e., 1 = about once or twice a month) for the social support items, which were rated using a 0 to 5 scale. Of the seven means which were larger than 1, the five means for spousal support ranged from 2.80 to 4.17 for students, and 2.23 to 4.25 for spouses; the means for emotional support from parents were 1.47 for students
and 1.25 for spouses, and the means for emotional support from friends were 1.72 for students and 1.39 for spouses. Students' report of spousal emotional support was negatively related to their own perceived stress (p < .0001) and their spouses' perceived stress (p < .0001). Spousal emotional support, as reported by the spouse group, was negatively related to their perceived stress (p < .0001) and students' perceived stress (p < .001).

Students' marital satisfaction was positively related to the emotional support (p < .0001), advice/counseling support (p < .0001), and household duties support (p < .01) which they received from spouses. Also, students' marital satisfaction was positively related to their spouses' reported emotional support (p < .0001), advice/counseling support (p < .0001), and household duties support (p < .0001).

Spouses' marital satisfaction was positively related to the emotional support (p < .0001) and advice/counseling support (p < .0001) which they received from students. Also, spouses' marital satisfaction was positively related to the students' reported emotional support (p < .0001) and advice/counseling support (p < .0001).

The means for students' (range 3.59 to 4.24) and spouses' (range 3.71 to 4.17) satisfaction with support ratings showed that, in general, the subjects in the study
were satisfied with the amount of support they had received during the semester. However, the validity of these ratings was questioned due to the limited number of subjects responding to these items.

Analysis of Variance

Since this study focused on the status of an individual as a student or spouse within the family, and the responses of the two individuals in the family were treated as repeated measures of that family, the student or spouse status (i.e., group) is the within group effect. The sex of the student, as an indicator of male college student or female college student families, is the between group effect. Thus, the interaction between the two factors (i.e., student/spouse group and sex of student) is interpretable as sex differences.

To test for the main effects of group, the main effects of sex of student, and the group by sex of student interactions, a 2 (group) x 2 (sex of student) repeated measures analysis of variance (ANOVA) procedure was employed for the following variables: perceived stress, marital satisfaction, the four locus of control factors (Fate, Luck, Personal Efficacy, and Personal Competence), the two household duties variables (masculine and feminine duties), and satisfaction with leisure time.

The group by sex of student interaction was significant
for perceived stress, \( F(1,319) = 14.76 \ p < .0001 \). Means showed that, regardless of student or spouse status, the females (\( M = 23.76 \)) in college student families reported higher perceived stress than the males (\( M = 21.84 \)).

For marital satisfaction, means for the significant group effect, \( F(1,326) = 7.69, \ p < .01 \), showed that spouses (\( M = 39.45 \)) were more satisfied with their marriages than students (\( M = 38.76 \)). Female students had the lowest marital satisfaction mean score (\( M = 38.02 \)) of all groups.

A significant group effect was found for satisfaction with leisure time \( F(1, 322) = 121.84, \ p < .0001 \). Spouses in college student families (\( M = 12.69 \)) were more satisfied with their amount of leisure time than students (\( M = 9.99 \)).

ANOVAS for the four locus of control factors yielded a significant group effect, and a significant sex of student effect, for the Fate factor, and significant interactions for the Luck, Personal Efficacy and Personal Competence factors. Means for the significant group effect for the Fate factor, \( F(1, 315) = 7.69, \ p < .01 \), showed that spouses in college student families (\( M = 21.67 \)) reported a higher belief in fate than students (\( M = 20.93 \)). Also, the sex of student effect was significant, \( F(1,315) = 8.55, \ p < .01 \). Inspection of the means revealed that the male student (\( M = 21.48 \)) and female spouse (\( M = 22.41 \)) couples believed that fate controls one's destiny more than the female student (\( M = 20.53 \)) and male spouse (\( M = 21.20 \)) couples.
A significant group by sex of student interaction was found for the Luck factor, $F(1, 318) = 10.47, p < .01$. Means showed that females ($M = 7.48$) had a higher belief in luck than males ($M = 6.63$), regardless of student or spouse status. Also, females ($M = 27.19$) in college student families were higher on personal efficacy than males ($M = 26.74$), as revealed by the means for the significant group by sex of student interaction for Personal Efficacy, $F(1, 316) = 4.53, p < .05$. Means for the significant group by sex of student interaction for the Personal Competence factor, $F(1, 318) = 37.04, p < .0001$, showed that regardless of student or spouse status, males ($M = 21.40$) had higher personal competence beliefs than females ($M = 19.90$).

Significant group and sex of student main effects were found for the masculine household duties variable. Means for the significant sex of student effect for the masculine household duties variable, $F(1, 270) = 1474.27, p < .0001$, revealed that male students ($M = 2.53$) and female spouses ($M = 3.06$) reported that the masculine household duties were performed primarily by the male students. Also, female students ($M = 8.76$) and male spouses ($M = 9.20$) reported that the masculine household duties were performed primarily by the male spouses. Means for the significant group effect, $F(1, 270) = 24.83, p < .0001$, revealed that students ($M = 5.65$) indicated that they performed a larger proportion of the masculine household duties than was
attributed to them by the spouses (M = 6.13).

Significant group and sex of student effects were found for the feminine household duties variable. A significant sex of student effect was found for the feminine household duties variable, F(1,324) = 403.49, p < .0001. Means showed that female students (M = 9.72) and male spouses (M = 11.13) reported that the feminine household duties were performed primarily by the female students. Also, male students (M = 19.32) and female spouses (M = 20.46) reported that the feminine household duties were performed primarily by the female spouses. Means for the significant group effect, F(1,324) = 48.14, p < .0001, revealed that students (M = 14.52) indicated that they performed a larger proportion of the feminine household duties than was attributed to them by the spouses (M = 15.80).

Analysis of Open-Ended Responses

Contingency tables were obtained for students' and spouses' responses to the open-ended question "What are the 3 most significant things that have helped you cope with the many responsibilities faced by college student families?". Since each subject may have provided as many as three responses to this question, the resulting chi-square statistic is inappropriate. Thus, these analyses were descriptive, rather than resulting in a statistical test of hypotheses.
Generally, the observed values in the diagonal cells, where students' and spouses' indicated responses contained within the same category, were larger than the expected values. Thus, students and spouses tended to respond in similar ways to the open-ended question. This tendency was most notable for the "spouse" and "religion" categories, where the observed values in the diagonal cells were much larger than the expected values.
DISCUSSION

The findings of this study suggest that the female role is a more salient one with regard to perceived stress. The females in this study, regardless of student or spouse status, reported higher perceived stress than the males. This is an expected finding in light of previous results which suggest that females in a variety of family environments are higher than males on stress (Cohen, Kamarck, & Mermelstein, 1983; Harriman, 1985; Walker & Walker, 1987; Weigel & Weigel, 1987). Results of the study suggest that the balancing of multiple roles is more demanding for females than for males.

The negative relationships between perceived stress, marital satisfaction, environmental satisfaction and leisure time satisfaction indicate that families who are experiencing more stress are less satisfied with their marriages, their housing environment and their leisure time. The pattern of positive relationships between students' perceived stress and the five student stress factors, and the negative relationships found among perceived stress, student stress and marital satisfaction, indicate that college-related problems tend to interfere with student roles and marital relationships. The students in this study are less satisfied than spouses with their marriages and their amount of leisure time. These results suggest there
is a relationship between students' multiple family, work and student role conflicts and the quality of their marital relationships. This finding may be most significant, however, for couples which contain a female student. A comparison of the mean marital satisfaction scores shows that the lowest mean was obtained for female college students.

Several findings in the present study may provide information about the lower marital satisfaction of college students. Female students in the present study, more than male students, report that family responsibilities are a source of stress. Also, families who are experiencing more stress report less frequent spousal support. The importance of spousal support is illustrated by students' and spouses' responses to the open-ended question. When asked to list the three most significant things that help them deal with the multiple responsibilities faced by college student families, students and spouses were most likely to respond "my spouse". However, recent research suggests that even when husbands perform some child care and household duties, wives continue to assume primary responsibility for child care and household tasks (Berardo, Shehan, & Leslie, 1987; Rexroat & Shehan, 1987; Yogev & Brett, 1985). This appears to be the case for the college student couples in the present study. The couples' division of household duties conforms to the patterns which are associated with more
Yoge and Brett (1985) report that the husbands and wives in their study who perceive that they are doing their share of the housework are more satisfied with their marriages. In the present study, students indicate that they assume more responsibility for household duties than is attributed to them by their spouses. Research suggests that the time males and females spend on household tasks is less when they have a significant investment of time and energy in their work roles (Marks, 1977; Rexroat & Shehan, 1987). If the college students in the present study are highly committed to their student role, then it is possible that they do assume less responsibility for household tasks, or perhaps the spouses support the college students by expecting less household duties support from them. It can also be speculated that the discrepant perceptions of students and spouses with regard to their time spent in household duties may impact more significantly on the marital relationships of couples in female college student families, than on the marital relationships of couples in male college student families, because the female is generally expected to perform the child care and household duties.

In addition to spousal support, families may receive support from extended family and friends. In the present study, means for the support items reveal that, other than
emotional support from parents and friends, college student families report very little support from extended family, neighbors or friends. However, extended family members may not live in close proximity to college student families; thus, it may not be possible for them to provide other types of support. It is expected, however, that friends might be a source of support for college student families. If friends of the college student family are also college students, it may be that they have little time or energy, and few resources to share with other families. The families in this study indicate that, in general, they are satisfied with the support they have received during the semester. However, many subjects did not respond to these items, and the means for support satisfaction tend to indicate that the subjects who did respond to these items developed a response set. Thus these data add little information to the results of the study.

Results of previous studies suggest that an internal locus of control orientation is a personal resource which is used for coping with stress (Dean & Ensel, 1982; Husaini, Neff, Newbrough, & Moore, 1982; Johnson & Sarason, 1978; Kobasa, 1979; Sandler & Lakey, 1982). Consistent with previous results, the present study shows that a belief in personal competence as a determinant of the outcomes of life events is higher for males than females (Dean & Ensel, 1982; Husaini et al., 1982). Previous findings suggest that
personal competence is associated with lower stress and depressive symptoms (Husaini et al., 1982). It is possible that this belief in personal competence is mediating perceived stress for the males, but not the females in the present study; however, the lack of a significant relationship between personal competence and perceived stress makes this assumption a questionable one.

On the surface, the finding that females believe more than males in personal efficacy seems somewhat inconsistent with the trend for females to report external locus of control beliefs (Lao, 1977). However, the present study considered locus of control to be a multidimensional construct, and it may not be appropriate to classify the locus of control factors in this study as either internal or external factors. However, the finding in the present study of a negative relationship between fate, which is a belief that powerful others control the outcomes of life events, and personal efficacy, suggests that the personal efficacy factor may have some aspects typically associated with internality. Inspection of the items which are included in the personal efficacy factor reveal that the items assess an optimistic expectation that individuals can determine the effectiveness of their interpersonal relationships. Thus, it may be speculated that this more optimistic outlook about life situations is a factor which helps these females cope with the stress in their lives.
The females in the present study, more than males, believe that luck determines the outcomes of life events. In previous studies, luck is considered to be an external locus of control orientation. Research suggests that stress is higher for individuals who have an external locus of control orientation (Johnson & Sarason, 1978; Sandler & Lakey, 1982). Several researchers suggest that it is the unexpected nature of events which makes them more stressful (Johnson & Sarason, 1978; Kobasa, 1979; Maddi & Kobasa, 1984; Pearlin, 1985). It may be speculated from the results that the females in the present study may believe that there is little they can do to influence the outcomes of certain events in their lives.

An unexpected finding in the present study is the difference between male and female college student families in their beliefs regarding fate. Husbands and wives in male college student families have stronger beliefs in fate than husbands and wives in female college student families. Since a locus of control orientation is considered to be a personality characteristic, it seems unlikely that it would be more characteristic of male families than female families. Although it is possible that individuals who have similar locus of control beliefs might select each other as mates, a more likely explanation seems to be that certain aspects of the college or family environment may tend to heighten couples' beliefs in fate.
The demographic characteristics of the subjects may provide some insight into aspects of the college and family environments of the families in this study. Male college student families are more likely to live in university apartments, and are more likely to rely on loans and scholarships for the family income. Female college student families are more likely to live in homes owned by the family, and are more likely to rely on the husband's job for the family income. Thus, it might be speculated that the male college student family's dependence on outside sources of family income and living arrangements may heighten the family's belief that the outcomes of life events are controlled by others.

The interpretation of the locus of control results should be treated with caution. As seen in Table 1, the reliability estimates for individual factors are of borderline acceptability.

In summary, it appears that stress and coping resources may be different for students and spouses, and males and females in college student families. Results, which are consistent with previous findings, show that the female role may be more stressful than the male role in college student families. Also in agreement with previous results, marital satisfaction and spousal support appear to be family resources which are associated with lower family stress. In general, students are less satisfied with their marriages
than spouses, and female students are the least satisfied with their marriages. Results suggest that personal competence may be an internal resource which is associated with lower stress for males, however the lack of a significant relationship between perceived stress and personal competence makes this relationship a speculative one. Results for fate, luck and personal efficacy are inconsistent with previous findings.

The present study investigates family stress and coping resources in male and female college student families. Although an extensive body of family stress research exists in the literature, additional research is needed to clarify the nature of stress and coping resources in this population. Of particular interest to future research, should be the investigation of relationships among stress, marital satisfaction, spousal support, and the potential effects of these variables on parent-child interactions and child development.
REFERENCES CITED


SUMMARY

Family stress and coping resources were investigated in a sample of 133 male and 195 female college students and their spouses. The differences between male and female college student families were investigated, and the relationships among perceived stress, student stress, locus of control, marital satisfaction, social support, satisfaction with leisure time and environmental satisfaction were explored. The Double ABCX Family Crisis Model provided the theoretical foundation for the study. A questionnaire was developed and mailed to 920 college student families.

Perceived stress was measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Items developed by the researcher to assess student stress were found to load on the following five factors: Family Responsibilities, School Administration, Grades, Social Problems and Transportation. Personal, family system and social support coping resources were also assessed by the questionnaire. Locus of control was measured by the Personal Reaction Scale (Galejs, Pease, & Wolins, 1984), and the following four factors were obtained: Fate, Luck, Personal Efficacy and Personal Competence.

Marital Satisfaction was measured by the dyadic satisfaction subscale of the Dyadic Adjustment Scale
(Spanier, 1976). Social support resources were measured by items developed by the researcher which assessed frequency of social support, source of support, type of support, and satisfaction with support sources. Spousal division of household duties was also assessed as a measure of spousal support. Two items, which assessed housing and neighborhood satisfaction, were used to measure environmental satisfaction and four items were used to measure satisfaction with leisure time. Individual and family demographic data were also collected.

Correlational analyses were used to explore the relationships among the variables. A 2 (group) x 2 (sex of student) repeated measures analysis of variance was used to analyze group and sex of student differences on perceived stress, locus of control, marital satisfaction, household duties, and satisfaction with leisure time.

Results showed that females perceived more stress and believed more in luck and personal efficacy than males; personal competence was higher for males than females. Students were less satisfied with their marriages and their amount of leisure time than were spouses. Students who were higher on the five student stress factors were also higher on perceived stress and were less satisfied with their marriages. Higher stress individuals believed more in fate, and were less satisfied with their marriages, their leisure time and their housing environment.
Families were under more stress when marital satisfaction and the frequency of spousal emotional support were low. Also, marital satisfaction was higher in college student families when spouses provided a higher frequency of spousal support. Females assumed the primary responsibility for child care and household duties, although students reported that they took more responsibility for household duties than the amount of responsibility attributed to them by their spouses. Support satisfaction was highest for spousal support. The contingency between students' and spouse's open-ended responses provided some evidence for the importance of spousal support as the most-often mentioned resource used for coping with the multiple role responsibilities faced by college student families. A low level of extended family and friend support was reported by families.

The results suggest that females in college student families may experience more stress as a result of their multiple role responsibilities, and students may be less satisfied with their marriages as a result of the interaction of their student and family roles. Further research should be conducted with college student families; specifically, the potential effects of stress and marital satisfaction on parent-child interactions and child development should be investigated.
ADDITIONAL REFERENCES CITED


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APPENDIX A: TABLES FOR SECTION II
Table 1. Personal Reaction Scale Factors and Statistics

<table>
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<th>Factor</th>
<th>No. of Items</th>
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<th>Reliability Estimate</th>
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<td>.60</td>
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<tr>
<td>Luck</td>
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<td>.46 to .62</td>
<td>.72</td>
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<td>.32 to .54</td>
<td>.58</td>
</tr>
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<td>Personal Competence</td>
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<td>.34 to .38</td>
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Table 2. Student Stress Factors and Statistics

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<td>.40 to .57</td>
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<td>Transportation</td>
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<td>.66 to .75</td>
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Table 3. Means, standard deviations and correlations among selected students' and spouses' variables

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Note.—Correlations greater than .17 are significant at the .01 level. Correlations greater than .19 are significant at the .001 level. Correlations greater than .22 are significant at the .0001 level.
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<td>0.19</td>
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<tr>
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<td>0.03</td>
<td>-0.03</td>
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<td>1.00</td>
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<td>0.02</td>
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<td>0.11</td>
<td>0.06</td>
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<td>0.09</td>
<td>0.10</td>
<td>0.04</td>
<td>0.16</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Mean 21.67  6.96  26.74  20.91  4.25  12.69  7.86
SD   4.36  3.92  2.89  3.34  1.37  3.20  1.96
N    319   322  321  324  314  326  328
APPENDIX B: STUDENT QUESTIONNAIRE
STUDENT FORM

College Student Family Questionnaire

There are 4 sections to this questionnaire. Be sure to read the directions carefully before answering the questions in each section.

Section 1. The questions in this section are designed to assess characteristics which are unique to you and your family. For questions 1-20, place a check mark in the blank next to your answer.

1. Your sex:
   ___ Male
   ___ Female

2. Your age: __________

3. Year in college:
   ___ Freshman
   ___ Sophomore
   ___ Junior
   ___ Senior
   ___ Graduate

4. How many semester hours are you enrolled for this semester?________

5. What is your major in college?_____________________________________

6. What is your current cumulative grade point average?
   ___ 3.50-4.00
   ___ 3.00-3.49
   ___ 2.50-2.99
   ___ 2.00-2.49
   ___ below 2.00

7. In an "average week", how much time do you spend studying...
   at home? away from home?
   0-4 hours ___ 0-4 hours ___
   5-9 hours ___ 5-9 hours ___
   10-14 hours ___ 10-14 hours ___
   15-19 hours ___ 15-19 hours ___
   20-24 hours ___ 20-24 hours ___
   25-29 hours ___ 25-29 hours ___
   30 hours ___ 30 hours ___
   or more ___ or more ___
8. Your employment status:
   _____ Not employed (Go on to question 11)
   _____ Employed part time (Answer questions 9-10)
   _____ Employed full time (Answer questions 9-10)

9. Your present job title or occupation:__________________________

10. How many hours do you work each week?______________________

11. What is your average monthly family income from all sources?____

12. What are the sources of your family income? Check all that apply.

   _____ Your job
   _____ Spouse's job
   _____ Savings
   _____ Loans
   _____ Scholarships
   _____ Other financial aid
   _____ Social services
   _____ Money from parents
   _____ Other income, please specify source:_____________________

13. Check the highest level of education completed by...

   Your  
   Father  
   _____ Grade school
   _____ Junior high school
   _____ Some high school
   _____ High school graduate
   _____ Community college, technical school or some college
   _____ College graduate
   _____ Graduate or professional degree
   
   Your  
   Mother  

14. Your father's job title or occupation:__________________________

15. Your mother's job title or occupation:__________________________

16. How many years have you been married?_______________________
17. Where do you live?
   ______ University housing, or

   Off campus:
   ______ Rented apartment
   ______ Rented mobile home
   ______ Rented house
   ______ Own mobile home
   ______ Own house
   ______ Live with parents or relatives
   ______ Other, please specify:

18. What is the total number of people living in your home?________

19. How satisfied are you with the adequacy of your family's housing?
   ______ Very dissatisfied
   ______ Dissatisfied
   ______ Uncertain
   ______ Satisfied
   ______ Very satisfied

20. Considering all factors (such as privacy and safety), how satisfied are you with your neighborhood?
   ______ Very dissatisfied
   ______ Dissatisfied
   ______ Uncertain
   ______ Satisfied
   ______ Very satisfied
For questions 21-29, your responses will be indicated by placing numbers in the appropriate blanks.

21. How often do the following interfere with your ability to attend class, study, or complete assignments?

   0 = Does not apply to me
   1 = Never
   2 = Rarely
   3 = Occasionally
   4 = More often than not
   5 = Most of the time
   6 = All of the time

   No one to care for your child/children
   Can't afford child care
   Household duties
   Transportation problems
   Social obligations
   Job obligations
   Family obligations
   Personal problems or worries
   Financial problems or worries
   Being too tired
   Your illness
   Illness of family member
   Family crisis or problem
   Other, please specify: ________________________________
22. Married college students may encounter a variety of situations while attending college. How often are the following situations a problem for you?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Does not apply to me</td>
</tr>
<tr>
<td>1</td>
<td>Never</td>
</tr>
<tr>
<td>2</td>
<td>Rarely</td>
</tr>
<tr>
<td>3</td>
<td>Occasionally</td>
</tr>
<tr>
<td>4</td>
<td>More often than not</td>
</tr>
<tr>
<td>5</td>
<td>Most of the time</td>
</tr>
<tr>
<td>6</td>
<td>All of the time</td>
</tr>
</tbody>
</table>

Having enough time to study
Understanding assignments/readings
Taking tests
Getting good grades
Getting into the right classes
Getting a good class schedule
Availability of professors/advisors for providing help
Conflicts with spouse
Conflicts with parents/in-laws
Commuting to college
Availability of family health care or counseling
Availability of financial aid
Other, please specify: ________________________________________

23. Do you have any children living at home?

No _____ (Go on to question 25)

Yes _____ (Answer questions 24-25)

24. For each of the following age/grade levels, indicate the number of female and male children living at home:

<table>
<thead>
<tr>
<th>Age/Grade Level</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant children (birth-24 mo.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kindergarten children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school children (grades 1-6)</td>
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<td></td>
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<tr>
<td>Junior high school children (grades 7-9)</td>
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<td></td>
</tr>
<tr>
<td>High school children (grades 10-12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College age or older children</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
25. If you have infant, preschool or kindergarten children at home, please indicate your child care arrangements for these children during the daytime hours. For each child, indicate the sex of the child and put one of the following numbers in the blank to indicate who cares for the child during the daytime hours. Several forms of care may be used for one child, so you may use more than one number in each blank. If you have more than 2 children in an age group, please include information about additional children on the back of this page.

1 = Parents  4 = Day care program
2 = Babysitter/family day care home  5 = Child is in kindergarten
3 = Preschool or Head Start program  6 = After school care

Infant Children:
Child # 1: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________
Child # 2: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________

Preschool Children:
Child # 1: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________
Child # 2: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________

Kindergarten Children:
Child # 1: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________
Child # 2: Child's sex: Male_____ Female_____
Child care arrangements:_____________________________________
26. Rate your level of satisfaction with the amount of time/opportunity you have for the following activities:

Use the following numbers to indicate your answer:

0 = Does not apply to me
1 = Very dissatisfied
2 = Dissatisfied
3 = Uncertain
4 = Satisfied
5 = Very satisfied

Time for self
Time with family
Time with friends
Time for things you like to do

27. In the past month, how have the following duties been handled in your household?

Use the following numbers to indicate your answer:

1 = Primarily by self
2 = About 2/3 by self and 1/3 by spouse
3 = About half by self and half by spouse
4 = About 1/3 by self and 2/3 by spouse
5 = Primarily by spouse
NA = Does not apply to me

Child care
Cooking
Dishes
Laundry
House cleaning
Grocery shopping
Other shopping
Taking care of finances
Household repairs
Car maintenance/repairs
Yard work
28. About how often during this semester have you received the following types of help or assistance from the people listed below? Use the following numbers to represent your answers by placing the numbers which represent your answers in the boxes below.

0 = Never  
1 = About once a month or less  
2 = About several times a month  
3 = About once a week  
4 = About twice a week  
5 = About every day

<table>
<thead>
<tr>
<th>SOURCES OF SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Child care</td>
</tr>
<tr>
<td>Household duties</td>
</tr>
<tr>
<td>Financial assistance</td>
</tr>
<tr>
<td>Advice/counseling</td>
</tr>
<tr>
<td>Emotional support</td>
</tr>
</tbody>
</table>

29. How satisfied are you with the amount of help and support you have received during this semester from the following sources? Use the following responses to indicate your answers:

0 = Does not apply to me  
1 = Very dissatisfied  
2 = Dissatisfied  
3 = Uncertain  
4 = Satisfied  
5 = Very satisfied

<table>
<thead>
<tr>
<th>Spouse</th>
<th>In-laws</th>
<th>Your parents</th>
<th>Other relatives</th>
<th>Neighbors</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

102-106

114-118
I am interested in finding out how college student families adjust to their many responsibilities. I would appreciate your responses to the following open-ended question:

What are the 3 most significant things that have helped you cope with the many responsibilities faced by college student families?

1. 

2. 

3. 

Please check to see that you have included a response for each question. Then return the questionnaires in the postage-paid envelope.

Thank you for completing this questionnaire. Your time and effort are truly appreciated.
APPENDIX C: SPOUSE QUESTIONNAIRE
There are 4 sections to this questionnaire. Be sure to read the directions carefully before answering the questions in each section.

Section 1. The questions in this section are designed to assess characteristics which are unique to you and your family. Two types of questions are included in Section 1. For some questions, you will just need to place a check mark in the blank next to your response. Other questions require you to choose the number which best represents your answer. For these questions, place the number you have chosen in the appropriate blank to indicate your response.

1. Your sex:
   ___ Male
   ___ Female

2. Your age: ______

3. Highest level of education you have completed:
   ___ Grade school
   ___ Junior high school
   ___ Some high school completed
   ___ High school graduate
   ___ Community college, technical school, or some college
   ___ College graduate
   ___ Graduate or professional degree

4. Your college student status:
   ___ Not currently enrolled in college (Go on to question 9)
   ___ Currently enrolled for ______ hours (Answer questions 5-8)

5. Year in college:
   ___ Freshman
   ___ Sophomore
   ___ Junior
   ___ Senior
   ___ Graduate student

6. What is your major in college? ________________
7. What is your current cumulative grade point average?
   - 3.50-4.00
   - 3.00-3.49
   - 2.50-2.99
   - 2.00-2.49
   - below 2.00

8. In an "average week", how much time do you spend studying....

   at home?          away from home?
   0-4 hours _____  0-4 hours _____
   5-9 hours _____  5-9 hours _____
   10-14 hours ____ 10-14 hours ____
   15-19 hours ____ 15-19 hours ____
   20-24 hours ____ 20-24 hours ____
   25-29 hours ____ 25-29 hours ____
   30 hours or more __ 30 hours or more __

9. Your employment status:
   - Not employed (Go on to question 12)
   - Employed part time (Answer questions 10-11)
   - Employed full time (Answer questions 10-11)

10. Your present job title or occupation:______________________________

11. How many hours do you work each week?__________________________

12. Check the highest level of education completed by...

   Your  Your
   Father Mother
   _____ _____ Grade school
   _____ _____ Junior high school
   _____ _____ Some high school
   _____ _____ High school graduate
   _____ _____ Community college, technical school or some college
   _____ _____ College graduate
   _____ _____ Graduate or professional degree

13. Your father's job title or occupation:______________________________

14. Your mother's job title or occupation:______________________________
15. How satisfied are you with the adequacy of your family's housing?

[ ] Very dissatisfied
[ ] Dissatisfied
[ ] Uncertain
[ ] Satisfied
[ ] Very satisfied

16. Considering all factors (such as privacy and safety), how satisfied are you with your neighborhood?

[ ] Very dissatisfied
[ ] Dissatisfied
[ ] Uncertain
[ ] Satisfied
[ ] Very satisfied

17. Rate your level of satisfaction with the amount of time/opportunity you have for the following activities:

Use the following numbers to indicate your answer:

0 = Does not apply to me
1 = Very dissatisfied
2 = Dissatisfied
3 = Uncertain
4 = Satisfied
5 = Very satisfied

[ ] Time for self
[ ] Time with family
[ ] Time with friends
[ ] Time for things you like to do
18. In the past month, how have the following duties been handled in your household?

Use the following numbers to indicate your answer:

1 = Primarily by self
2 = About 2/3 by self and 1/3 by spouse
3 = About half by self and half by spouse
4 = About 1/3 by self and 2/3 by spouse
5 = Primarily by spouse
NA = Does not apply to me

___ Child care
___ Cooking
___ Dishes
___ Laundry
___ House cleaning
___ Grocery shopping
___ Other shopping
___ Taking care of finances
___ Household repairs
___ Car maintenance/repairs
___ Yard work
19. About how often during this semester have you received the following types of help or assistance from the people listed below? Use the following numbers to represent your answers by placing the numbers which represent your answers in the boxes below.

<table>
<thead>
<tr>
<th>TYPES OF SUPPORT</th>
<th>Spouse</th>
<th>Your Parents</th>
<th>In-laws</th>
<th>Other Relatives</th>
<th>Neighbors</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household duties</td>
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<tr>
<td>Financial assistance</td>
<td></td>
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<tr>
<td>Advice/counseling</td>
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<tr>
<td>Emotional support</td>
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</tbody>
</table>

0 = Never
1 = About once a month or less
2 = About several times a month
3 = About once a week
4 = About twice a week
5 = About every day

20. How satisfied are you with the amount of help and support you have received during this semester from the following sources? Use the following responses to indicate your answers:

<table>
<thead>
<tr>
<th></th>
<th>Spouse</th>
<th>In-laws</th>
<th>Your parents</th>
<th>Other relatives</th>
<th>Neighbors</th>
<th>Friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Does not apply to me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Very dissatisfied</td>
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<td></td>
<td></td>
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<tr>
<td>2 = Dissatisfied</td>
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<tr>
<td>3 = Uncertain</td>
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<tr>
<td>4 = Satisfied</td>
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<tr>
<td>5 = Very satisfied</td>
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</tr>
</tbody>
</table>

___  Spouse
___  In-laws
___  Your parents
___  Other relatives
___  Neighbors
___  Friends
I am interested in finding out how college student families adjust to their many responsibilities. I would appreciate your responses to the following open-ended question:

What are the 3 most significant things that have helped you cope with the many responsibilities faced by college student families?

1. 

2. 

3. 

Please check to see that you have included a response for each question. Then return the questionnaires in the postage-paid envelope.

Thank you for completing this questionnaire. Your time and effort are truly appreciated.
APPENDIX D: FAMILY LETTER
April 21, 1987

Dear Student:

Since you are a married college student, you know that attending classes and studying are only part of your responsibilities. Home, family, and often job responsibilities are also a significant part of your life. As an assistant professor at UNI, I have worked with many married students and have become interested in the concerns and challenges families face when at least one spouse is a college student. Since very little is known about how married college students and their families adapt to these varied demands on their time and commitment, I have planned a study to investigate this topic. I hope you and your spouse will read this letter, which explains more about the study and your rights as a study participant.

I would like you and your spouse to complete the enclosed questionnaires. The questionnaires are identical, except for some informational questions on the Student Form which you should complete. Please ask your spouse to complete the enclosed Spouse Form. It should take about 30-40 minutes to complete the questionnaires. Please complete the questionnaires independently.

Your participation in this study is voluntary and you may decline to participate simply by not completing and returning your questionnaires. However, I need to have a response from as many couples as possible in order for the results of the study to be valuable. The UNI Registrar's Office provided me with your name and the names of other undergraduate married students who are being asked to participate in the study. No identification numbers have been used on the questionnaires or the return envelopes so it is not possible to identify any of the subjects in the study or to connect individuals with their responses. Thus, your identity is protected and all information you provide is strictly confidential.

After you and your spouse have completed the questionnaires, please return them to me in the enclosed, postage-paid envelope. If you have any questions about the study, please contact me at my office (273-6198) or at the Department of Curriculum and Instruction (273-2167); both are located in the Education Center. I am completing this study as part of my doctoral program in Child Development at Iowa State University, Ames, Iowa. The University of Northern Iowa and Iowa State University have agreed to cooperate in this study. Please feel free to contact the UNI Graduate College (273-2748) if you have any questions about this research or about the rights of research subjects. The results of this study will be available in December, 1987 and can be obtained by calling or writing me, or by contacting the Department of Curriculum and Instruction at UNI.

I would like to thank you in advance for your cooperation in this study. It is hoped that the results of this study will help universities better meet the needs of college student families.

Sincerely,

Barbara J. Chaney

Barbara J. Chaney

Enclosures
APPENDIX D: FOLLOW-UP POSTCARD
May 1, 1987

Dear Student and Spouse,

Recently, I sent you some questionnaires as part of my study with college student families. If you have returned your questionnaires, please accept my thanks for your participation. If you have not returned your questionnaires yet, please do so as soon as possible.

I'd like to remind you that no individuals in the study will be identified and your responses are strictly confidential. If you have misplaced the questionnaires or have questions about the study, please call me at 273-6198 or 277-7619.

Thank you for your participation.

Barbara Chaney
Barbara Chaney
APPENDIX F: CODING MAP FOR DATA
**Student Form**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3</td>
<td>Subject #</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sex</td>
<td>1=male, 2=female</td>
</tr>
<tr>
<td>5-6</td>
<td>Age (in years)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Year in college</td>
<td>1=freshman, 2=sophomore, 3=junior, 4=senior, 5=graduate</td>
</tr>
<tr>
<td>8-9</td>
<td>Current college course load (semester hours)</td>
<td></td>
</tr>
<tr>
<td>10-11</td>
<td>College major</td>
<td>01=Art/Music, 02=Business, 03=Communication/Theatre Arts/Speech/English, 04=Education, 05=Foreign Language Studies, 06=General/Individual Studies, 07=Home Economics, 08=Humanities/Philosophy, 09=Industrial Arts &amp; Technology, 10=Math/Computer Science, 11=Nursing, 12=Physical Education/Health/Community Rec., 13=Science, 14=Social Science (Psychology/Social Work), 20=Undecided</td>
</tr>
<tr>
<td>12</td>
<td>Current cumulative grade point average</td>
<td>5=3.50 to 4.00, 4=3.00 to 3.49, 3=2.50 to 2.99, 2=2.00 to 2.49, 1=below 2.00</td>
</tr>
<tr>
<td>13</td>
<td>Amount of time spent studying in an average week (at home)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>(away from home)</td>
<td>5=20 to 24 hours, 6=25 to 29 hours, 7=30 or more hours</td>
</tr>
<tr>
<td>15</td>
<td>Employment status</td>
<td>0=not employed, 1=employed part time, 2=employed full time</td>
</tr>
</tbody>
</table>
Column

Card 1 (continued)

16 Occupation
   1=professional, large business owner, or executive
   2=medium business owner or executive/lesser professional
   3=small independent business/semi-professional/administrative
   4=sales, clerical, technician
   5=skilled worker
   6=semi-skilled worker
   7=unskilled worker

17-18 Work hours per week (actual hours)
19-22 Average monthly income (actual income)

Sources of income
23 Your job
24 Spouse's job
25 Savings
26 Loans
27 Scholarships
28 Other financial aid
29 Social services
30 Money from parents
31 Other income

Parents' educational level
32 (father)
   7=grade school
   6=junior high school
   5=some high school
   4=high school graduate
   3=community college, technical school or some college
33 (mother)

Parents' occupation
34 (father)
   1=professional, large business owner, or executive
   2=medium business owner or executive/lesser professional
   3=small independent business/semi-professional/administrative
   4=sales, clerical, technician
   5=skilled worker
   6=semi-skilled worker
   7=unskilled worker
35 (mother)
Column

Card 1 (continued)

36-37  Years student and spouse have been married
38  Type of housing
  1=University housing
  2=Rented apartment
  3=Rented mobile home
  4=Rented house
  5=Own mobile home
  6=Own house
  7=Live with parents
  8=Other
39  Number of people living in home
40  Housing satisfaction
41  Neighborhood satisfaction
  1=very dissatisfied
  2=dissatisfied
  3=Uncertain
  4=satisfied
  5=very satisfied
42-55  School interference items
56-68  School problem items
  0=does not apply to me
  1=never
  2=rarely
  3=occasionally
  4=more often than not
  5=most of the time
  6=all of the time
69  Children living at home
  0=no
  1=yes

Card 2
1-3  Subject #
4-17  Number of children living at home (actual number)
18 & 22  Infant children's sex
26 & 30  Preschool children's sex
34 & 38  Kindergarten children's sex
  1=male
  2=female
19-21  Child care arrangements for infant child # 1
23-25  Child care arrangements for infant child # 2
27-29  Child care arrangements for preschool child # 1
31-33  Child care arrangements for preschool child # 2
35-37  Child care arrangements for kindergarten child #1
39-41  Child care arrangements for kindergarten child # 2
  1= parents
  2= babysitter/family day care home
  3= preschool or Head Start program
  4= day care program
  5= child is in kindergarten
  6= after school care
Column

Card 2 (continued)

42-45 Satisfaction with leisure time
   0=does not apply to me     3=uncertain
   1=very dissatisfied       4=satisfied
   2=dissatisfied            5=very satisfied

46-56 Household duties items
   0=does not apply to me
   1=primarily by self
   2=about 2/3 by self and 1/3 by spouse
   3=about half by self and half by spouse
   4=about 1/3 by self and 2/3 by spouse
   5=primarily by spouse

Card 3

1-3 Subject #
4-8 Support from spouse
9-13 Support from student's parents
14-18 Support from student's in-laws
19-23 Support from other relatives
24-28 Support from neighbors
29-33 Support from friends
   0=never
   1=about once a month
   2=about several times a month
   3=about once a week
   4=about twice a week
   5=about every day

34-39 Satisfaction with support
   0=does not apply to me
   1=very dissatisfied
   2=dissatisfied
   3=uncertain
   4=satisfied
   5=very satisfied

40-60 Personal Reaction Scale responses
   (items 1-21)
   1=strongly do not believe
   2=do not believe
   3=uncertain
   4=do believe
   5=strongly do believe
**Column**

**Card 4**

<table>
<thead>
<tr>
<th>1-3</th>
<th>Subject #</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-23</td>
<td>Student responses to Personal Reaction Scale (items 22-41)</td>
</tr>
<tr>
<td></td>
<td>1=strongly do not believe</td>
</tr>
<tr>
<td></td>
<td>2=do not believe</td>
</tr>
<tr>
<td></td>
<td>3=uncertain</td>
</tr>
<tr>
<td></td>
<td>4=do believe</td>
</tr>
<tr>
<td></td>
<td>5=strongly do believe</td>
</tr>
</tbody>
</table>

**Card 5**

<table>
<thead>
<tr>
<th>1-3</th>
<th>Subject #</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-10</td>
<td>Dyadic Satisfaction Subscale responses (Dyadic Adjustment Scale) (items 1-7)</td>
</tr>
<tr>
<td></td>
<td>0=all of the time</td>
</tr>
<tr>
<td></td>
<td>1=most of the time</td>
</tr>
<tr>
<td></td>
<td>2=more often than not</td>
</tr>
<tr>
<td></td>
<td>3=occasionally</td>
</tr>
<tr>
<td></td>
<td>4=rarely</td>
</tr>
<tr>
<td></td>
<td>5=never</td>
</tr>
</tbody>
</table>

**Card 5**

<table>
<thead>
<tr>
<th>11</th>
<th>Responses to item 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>4=never</td>
<td></td>
</tr>
<tr>
<td>3=almost every day</td>
<td></td>
</tr>
<tr>
<td>2=occasionally</td>
<td></td>
</tr>
<tr>
<td>1=rarely</td>
<td></td>
</tr>
<tr>
<td>0=never</td>
<td></td>
</tr>
</tbody>
</table>

**Card 5**

<table>
<thead>
<tr>
<th>12</th>
<th>Responses to item 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>0=extremely unhappy</td>
<td></td>
</tr>
<tr>
<td>1=fairly happy</td>
<td></td>
</tr>
<tr>
<td>2=a little unhappy</td>
<td></td>
</tr>
<tr>
<td>3=happy</td>
<td></td>
</tr>
<tr>
<td>4=very happy</td>
<td></td>
</tr>
<tr>
<td>5=extremely happy</td>
<td></td>
</tr>
<tr>
<td>6=perfect</td>
<td></td>
</tr>
</tbody>
</table>
Column

Card 5 (continued)

13 Responses to item 10

5=I want desperately for my marriage to succeed, and would go to almost any length to see that it does.
4=I want very much for my marriage to succeed, and I will do all that I can to see that it does.
3=I want very much for my marriage to succeed, and I will do my fair share to see that it does.
2=It would be nice if my marriage succeeded, but I can't do much more than I am doing to help it succeed.
1=It would be nice if my marriage succeeded, but I refuse to do any more than I am doing to help it going.
0=My marriage can never succeed, and there is no more that I can do to keep the marriage going.

14-27 Perceived Stress Scale responses

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

Card 8

1-3 Subject #
4-5 Student open-ended response #1
6-7 Student open-ended response #2
8-9 Student open-ended response #3

01=self
02=spouse
03=family
04=friends
05=advisors/professors
06=religion
07=financial security
08=stress relievers
09=organization and management
10=other
Spouse Form

Column

Card 6

1-3  Subject #

4  Sex
   1=male
   2=female

5-6  Age (in years)

7  Educational level
   7=grade school
   6=junior high school
   5=some high school
   4=high school graduate
   3=community college, technical school or some college
   2=college graduate
   1=graduate or professional degree

8  College student status
   0=not currently enrolled
   1=currently enrolled

9  Year in college
   1=freshman
   2=sophomore
   3=junior
   4=senior
   5=graduate

10-11  College major
   01=Art/Music
   02=Business
   03=Communication/Theatre Arts/Speech/English
   04=Education
   05=Foreign Language Studies
   06=General/Individual Studies
   07=Home Economics
   08=Humanities/Philosophy
   09=Industrial Arts & Technology
   10=Math/Computer Science
   11=Nursing
   12=Physical Education/Health/Community Rec.
   13=Science
   14=Social Science (Psychology/Social Work)
   20=Undecided
<table>
<thead>
<tr>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>Card 6 (continued)</td>
</tr>
<tr>
<td>12 Current cumulative grade point average</td>
</tr>
<tr>
<td>5 = 3.50 to 4.00</td>
</tr>
<tr>
<td>4 = 3.00 to 3.49</td>
</tr>
<tr>
<td>3 = 2.50 to 2.99</td>
</tr>
<tr>
<td>2 = 2.00 to 2.49</td>
</tr>
<tr>
<td>1 = below 2.00</td>
</tr>
<tr>
<td>Amount of time spent studying in an average week</td>
</tr>
<tr>
<td>13 (at home)</td>
</tr>
<tr>
<td>14 (away from home)</td>
</tr>
<tr>
<td>1 = 0 to 4 hours</td>
</tr>
<tr>
<td>2 = 5 to 9 hours</td>
</tr>
<tr>
<td>3 = 10 to 14 hours</td>
</tr>
<tr>
<td>4 = 15 to 19 hours</td>
</tr>
<tr>
<td>15 Employment status</td>
</tr>
<tr>
<td>0 = not employed</td>
</tr>
<tr>
<td>1 = employed part time</td>
</tr>
<tr>
<td>2 = employed full time</td>
</tr>
<tr>
<td>16 Occupation</td>
</tr>
<tr>
<td>1 = professional, large business owner, or executive</td>
</tr>
<tr>
<td>2 = medium business owner or executive/lesser professional</td>
</tr>
<tr>
<td>3 = small independent business/semi-professional/administrative</td>
</tr>
<tr>
<td>4 = sales, clerical, technician</td>
</tr>
<tr>
<td>5 = skilled worker</td>
</tr>
<tr>
<td>6 = semi-skilled worker</td>
</tr>
<tr>
<td>7 = unskilled worker</td>
</tr>
<tr>
<td>17-18 Work hours per week (actual hours)</td>
</tr>
<tr>
<td>19 Parents' educational level</td>
</tr>
<tr>
<td>(father)</td>
</tr>
<tr>
<td>20 (mother)</td>
</tr>
<tr>
<td>7 = grade school</td>
</tr>
<tr>
<td>6 = junior high school</td>
</tr>
<tr>
<td>5 = some high school</td>
</tr>
<tr>
<td>4 = high school graduate</td>
</tr>
<tr>
<td>3 = community college, technical school or some college</td>
</tr>
<tr>
<td>2 = college graduate</td>
</tr>
<tr>
<td>1 = graduate or professional degree</td>
</tr>
</tbody>
</table>
Column

Card 6 (continued)

Parents' occupation
21  (father)
22  (mother)
   1=professional, large business owner, or executive
   2=medium business owner or executive/lesser professional
   3=small independent business/semi-professional/administrative
   4=sales, clerical, technician
   5=skilled worker
   6=semi-skilled worker
   7=unskilled worker

Housing satisfaction
23

Neighborhood satisfaction
24
   1=very dissatisfied
   2=dissatisfied
   3=Uncertain
   4=satisfied
   5=very satisfied

Satisfaction with leisure time
25-28
   0=does not apply to me
   1=very dissatisfied
   2=dissatisfied
   3=Uncertain
   4=satisfied
   5=very satisfied

Household duties items
29-39
   0=does not apply to me
   1=primarily by self
   2=about 2/3 by self and 1/3 by spouse
   3=about half by self and half by spouse
   4=about 1/3 by self and 2/3 by spouse
   5=primarily by spouse

Support from spouse
40-44
   0=never
   1=about once a month
   2=about several times a month
   3=about once a week
   4=about twice a week
   5=about every day

Support from student's parents
45-49

Support from student's in-laws
50-54

Support from other relatives
55-59

Support from neighbors
60-64

Support from friends
65-69
Column

Card 6 (continued)
70-75 Satisfaction with support
  0=does not apply to me
  1=very dissatisfied
  2=dissatisfied
  3=uncertain
  4=satisfied
  5=very satisfied

Card 7
1-3 Subject #
4-44 Personal Reaction Scale responses
  1=strongly do not believe
  2=do not believe
  3=uncertain
  4=do believe
  5=strongly do believe

45-51 Dyadic Satisfaction Subscale responses
  (Dyadic Adjustment Scale)
  (items 1-7)
  0=all of the time
  1=most of the time
  2=more often than not
  3=occasionally
  4=rarely
  5=never

52 Responses to item 8
  4=never
  3=almost every day
  2=occasionally
  1=rarely
  0=never

53 Responses to item 9
  0=extremely unhappy
  1=fairly happy
  2=a little unhappy
  3=happy
  4=very happy
  5=extremely happy
  6=perfect
Column

Card 7 (continued)

54 Responses to item 10
5 = I want desperately for my marriage to succeed, and would go to almost any length to see that it does.
4 = I want very much for my marriage to succeed, and I will do all that I can to see that it does.
3 = I want very much for my marriage to succeed, and I will do my fair share to see that it does.
2 = It would be nice if my marriage succeeded, but I can't do much more than I am doing to help it succeed.
1 = It would be nice if my marriage succeeded, but I refuse to do any more than I am doing to help it going.
0 = My marriage can never succeed, and there is no more that I can do to keep the marriage going.

55-68 Perceived Stress Scale responses
0 = never
1 = almost never
2 = sometimes
3 = fairly often
4 = very often

Card 9
1-3 Subject #
4-5 Spouse open-ended response #1
6-7 Spouse open-ended response #2
8-9 Spouse open-ended response #3
01 = self
02 = spouse
03 = family
04 = friends
05 = advisors/professors
06 = religion
07 = financial security
08 = stress relievers
09 = organization and management
10 = other
APPENDIX G: SUPPLEMENTARY TABLES
Table 4. Personal Reaction Scale factors and items

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fate</strong></td>
<td></td>
</tr>
<tr>
<td>Item +1</td>
<td>It is not always wise to plan too far ahead because many things turn out to be a matter of good and bad fortune.</td>
</tr>
<tr>
<td>Item +7</td>
<td>When someone doesn't like you there is little you can do about it.</td>
</tr>
<tr>
<td>Item +10</td>
<td>There's not much use in trying too hard to please people, if they like you, they like you.</td>
</tr>
<tr>
<td>Item +29</td>
<td>Many times we might just as well decide what to do by flipping a coin.</td>
</tr>
<tr>
<td>Item +32</td>
<td>You often are blamed for things that just aren't your fault.</td>
</tr>
<tr>
<td>Item +34</td>
<td>Most people don't realize the extent to which their lives are controlled by accidental happenings.</td>
</tr>
<tr>
<td>Item +35</td>
<td>What is going to happen will happen.</td>
</tr>
<tr>
<td>Item +38</td>
<td>An individual's worth unfortunately often passes unrecognized no matter how hard he or she tries.</td>
</tr>
<tr>
<td><strong>Luck</strong></td>
<td></td>
</tr>
<tr>
<td>Item -5</td>
<td>Many of the unhappy things in people's lives are partly due to bad luck.</td>
</tr>
<tr>
<td>Item +13</td>
<td>There really is no such thing as &quot;luck&quot;.</td>
</tr>
<tr>
<td>Item +19</td>
<td>Becoming a success is a matter of hard work; luck has little or nothing to do with it.</td>
</tr>
<tr>
<td>Item -23</td>
<td>Some people are just born lucky.</td>
</tr>
<tr>
<td>Item +28</td>
<td>In your case getting what you want has little or nothing to do with luck.</td>
</tr>
<tr>
<td>Item +39</td>
<td>It is impossible for chance or luck to play an important role in your life.</td>
</tr>
</tbody>
</table>
Table 4. (Continued)

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loading</th>
</tr>
</thead>
</table>

**Personal Efficacy**

- Item +9  In the long run the bad things that happen to us are balanced by the good ones. .37
- Item +17  There is some good in everyone. .45
- Item +22  People will usually do things for you if you ask them. .36
- Item +27  When you make plans, you are almost certain that you can make them work. .35
- Item +31  When someone gets mad at you, you can usually do something to make him or her your friend again. .32
- Item +37  A person can be whatever he or she wants to be. .46
- Item +41  If somebody tries hard enough he or she can succeed. .54

**Personal Competence**

- Item +4  When someone is nice to you, it is because you did the right things. .37
- Item +8  There are certain people who are just no good. .36
- Item +12  When people are good to you, it is usually because you did something to make them be good. .34
- Item +21  How many friends you have depends on how nice a person you are. .38
- Item +26  People are lonely because they don't try to be friendly. .35
- Item +30  Capable people who fail to become leaders have not taken advantage of their opportunities. .38
- Item +33  People's misfortunes result from the mistakes they make. .34
Table 5. Student stress factors and items

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loading</th>
</tr>
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<tbody>
<tr>
<td><strong>Family Responsibilities</strong></td>
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</tr>
<tr>
<td>*Item 13 Household duties</td>
<td>.73</td>
</tr>
<tr>
<td>Item 15 Social obligations</td>
<td>.54</td>
</tr>
<tr>
<td>Item 17 Family obligations</td>
<td>.73</td>
</tr>
<tr>
<td>Item 110 Being too tired</td>
<td>.52</td>
</tr>
<tr>
<td><strong>School Administration</strong></td>
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</tr>
<tr>
<td>**Item P5 Getting into the right classes</td>
<td>.80</td>
</tr>
<tr>
<td>**Item P6 Getting a good class schedule</td>
<td>.88</td>
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<tr>
<td>Item P7 Availability of professors/</td>
<td>.51</td>
</tr>
<tr>
<td>advisors for providing help</td>
<td></td>
</tr>
<tr>
<td><strong>Grades</strong></td>
<td></td>
</tr>
<tr>
<td>Item P2 Understanding assignments/</td>
<td>.62</td>
</tr>
<tr>
<td>readings</td>
<td></td>
</tr>
<tr>
<td>Item P3 Taking tests</td>
<td>.67</td>
</tr>
<tr>
<td>Item P4 Getting good grades</td>
<td>.72</td>
</tr>
<tr>
<td><strong>Social Problems</strong></td>
<td></td>
</tr>
<tr>
<td>Item I8 Personal problems or worries</td>
<td>.47</td>
</tr>
<tr>
<td>Item I9 Financial problems or worries</td>
<td>.47</td>
</tr>
<tr>
<td>Item I12 Illness of family member</td>
<td>.48</td>
</tr>
<tr>
<td>Item I13 Family crisis or problem</td>
<td>.48</td>
</tr>
<tr>
<td>Item P8 Conflicts with spouse</td>
<td>.40</td>
</tr>
<tr>
<td>Item P11 Availability of family health care</td>
<td></td>
</tr>
<tr>
<td>or counseling</td>
<td>.58</td>
</tr>
<tr>
<td><strong>Transportation</strong></td>
<td></td>
</tr>
<tr>
<td>Item I4 Transportation problems</td>
<td>.66</td>
</tr>
<tr>
<td>Item P10 Commuting to college</td>
<td>.75</td>
</tr>
</tbody>
</table>

*I = School interference item

**P = School problem item