MATERNAL WELL-BEING AND A CHRONICALLY-ILL CHILD

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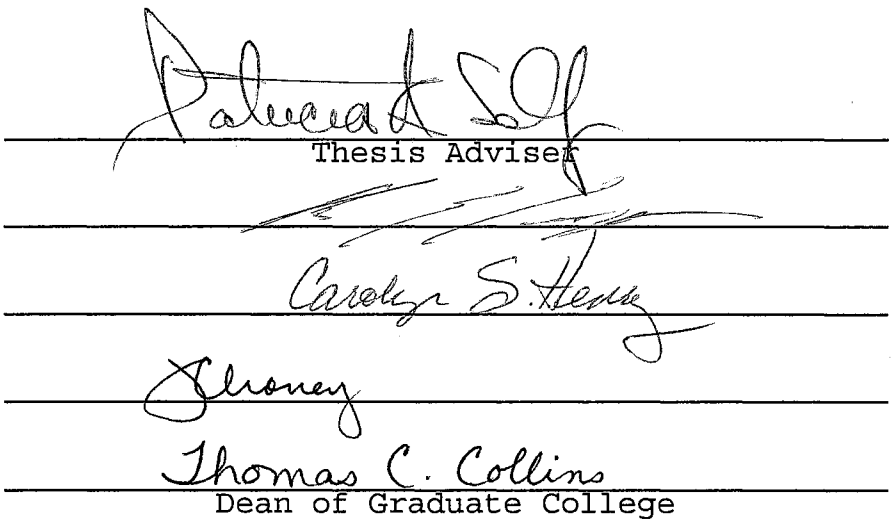

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Introduction

American families have undergone radical changes in the past several decades. Certainly, the number of dual-earner families and single-parent families has increased to the point that they are now reflective of major family types in our society (DelCampo, 1994).

Perhaps the most significant reason for changes in family forms is the number of women who have entered the workforce. It has been suggested that nearly 75% of the mothers of school-age children are now working (DelCampo, 1994). Although such increases are manifested in all age groups, they are most pronounced among women with children under five years of age (Kamerman, 1989). This stems not only from the desire to work, but from economic need.

In addition to dual-earner families, adolescent motherhood continues to be an area of social concern. Research estimates that school-aged females, those younger than 18 years of age, gave birth to almost 500 babies each day in 1986 (National Center for Health Statistic, 1988). While these figures are alarming, the actual proportion of adolescents who gave birth is lower than it was in the 1970's (Henshaw & Van Vort, 1989). However, the individual and family crisis created by early parenthood often is the beginning of further educational, economic, and marital difficulties (Panzarine, 1986; Schinke, Barth, Gilchrist, & Maxwell, 1986; Yarcheski & Mahon, 1986; Furstenberg, Brooks-Gunn, & Chase-Lansdale, 1989).

An aspect of family life that is often seen as linking the mother's employment status to the effects on the child is the mother's emotional state or "morale". There are two seemingly conflicting views. One is that employment can enhance a women's life, providing stimulation, self-esteem, adult contacts, escape from the repetitive routines of housework and child care, and a buffer against stress from family roles (Baruch, Biener, & Barnett, 1987; Volling & Belsky, 1993).

The assumption has been that the roles of mother, wife, and homemaker fit together easily, at least more easily than the roles of a paid worker (Baruch et al., 1987). In a large-scale longitudinal study, Pearlin, Liberman, Menaghan, and Mullen (1981) found that women who occupy the role of homemaker were more likely to experience "role disenchantment" and depression than were employed women. In addition, the nonemployed reported more demands on them than did the employed (Pearlin et al., 1981). The workplace appears more often than not to offer such benefits as challenge, control, structure, positive feedback, and self-esteem and to provide a valued set of social titles (Seiber, 1974; Alverez, 1985; Baruch et al., 1987).

A second view is that the dual roles of worker and mother are stressful. Employed mothers can experience an overload of responsibilities as they attempt to balance the demands of employment and family roles (Keith & Schafer, 1980; Repetti, 1987). The consequent stress of

maintaining this balance has been discussed in the scholarly literature for the past few decades (Friedman & Rosenman, 1974). The work role has been viewed as a catalyst for psychological distress and impaired health in women by the cardiologists Friedman and Rosenman (1974) in their well-known book on the Type A behavior pattern and coronary heart disease.

There is a marked absence of research exploring maternal responses to the pile-up of stressors involving a chronically ill child. In addition, there is strong preoccupation in the literature toward the role strain and overload of multiple identities, omitting issues of personal competence, worth, success, and importance to others (Seiber, 1974; Marks, 1977).

The high incidence of depression in mother's of children with chronic disorders is not surprising, given the special demands they face (Walker, Ortiz- Valdes, & Newbrough, 1989). Perhaps these women are particularly vulnerable to stress because their family roles often combine a high level of psychological demands with a low level of control (Walker et al., 1989). Certainly this describes the situation of mothers who are responsible for the well-being of children with disorders that have unpredictable and often uncontrollable effects on the child.

Theoretical Perspectives

The early theoretical frameworks on women and work focused upon role conflict and role overload between

homemaker and employee roles. The existence of conflict was assumed a priori given that women in the paid labor force were non-normative (Maril, 1993). The following theoretical exploration will (a) move from the limited framework of role strain to a richer account of multiple identities, namely, role accumulation, and (b) investigate stress and coping theories in response to maternal well-being and a chronically-ill child.

Role Theory

Role Strain

William Goode (1960) translated the "grand theory" of functionalist Talcott Parsons into a set of provocative concepts for family analyses. Role strain, he argues, is endemic to society, and not inherently negative. When role strain grows beyond manageable proportions, it may develop into role overload or having too many role demands and too little time to fulfill them (Baruch et al. 1987; Coverman, 1989). If role overload continues, it may in turn lead to role conflict, "when the demands of each of the multiple roles makes it difficult to fulfill the demands of another role" (Coverman, 1989, p. 969).

Goode (1960) defined this factor as the felt difficulty in fulfilling role obligations. This variable is identical with what Sarbin and Allen (1968) call cognitive strain. It is a continuous variable that ranges in degree from absence to a high amount. Goode (1960) did not identify any of the values on a continuum.

A key assumption or bias underlies widely accepted theories of social roles----that multiple relationships with diverse role partners is a source of psychological stress and social instability (Kessler & McCrae, 1982; Pleck & Staines, 1985). Goode (1960) in particular supports this viewpoint, although it is more or less implicit in the writings of most role theorists (Pearlin et al., 1981; Alpert & Culbertson, 1987; Repetti, 1987). For example, Poloma (1972) outlined four tension-management techniques used by employed women: (a) defining employment as favorable or advantageous, (b) establishing priorities among roles, (c) compartmentalizing work and family roles, and (d) compromising.

Before examining the assumption that a tendency toward role strain is a natural consequence of multiple roles, it should be noted that the notion of role strain comprises two overlapping problems. These are role overload and role conflict. The former refers to constraints imposed by time: as role obligations increase, sooner or later a time barrier is confronted that forces the actor to honor some roles at the expense of honoring others (Seiber, 1974).

Although Goode (1960) does not identify overload as a distinct problem, many of his observations can be subsumed under this notion. References to a wide, distracting array of role obligations to the problem of roles demands being required at particular times and places or to the expenditure of a finite sum of role resources might be all

understood as parts of the general concept of role overload (Seiber, 1974). The point at which time begins to impose serious constraints is, of course, an empirical question; and time constraints might not be as rigid as role theorists tend to suppose. In fact, such constraints might be highly adjustable as a normal consequence of expanding the role system (Seiber, 1974; Marks, 1977).

Role conflict refers to discrepant expectations irrespective of time pressures (Seiber, 1974). One must choose between the expectations of A and B because compliance with the expectations of one will violate the expectations of the other. Since it is obvious that humans are not incapacitated by role strain, and that society is not characterized by disorder, some other processes must also be present (Seiber, 1974).

Goode (1960) divided the technique for reducing role strain into those which determine whether or when the individual will leave a role relationship; and those which have to do with the actual role bargain which the individual makes or carries out with another. As indicated by the latter point, Goode's (1960) version of exchange theory is derived from the postulate of role strain (Seiber, 1974). A number of mechanisms are postulated to help reduce tension and disruption in an individual's role system. This line of reasoning entails some dubious logic, for the premise from which we infer the need for mechanisms or techniques is never empirically established (Seiber, 1974).

The reconceptualization of role strain means that research on the consequences of role multiplicity should measure gratification as well as deprivation. Research that omits the possible rewards of additional roles is not an adequate test of the theory (Seiber, 1974).

An alarming number of investigations involving employed mothers is typical of this misplaced emphasis (Keith & Schafer, 1980; Repetti, 1987; Shipley & Coates, 1992). Many of the instruments used contain only negative items, e.g., "When I look back in years to come, I think I will regret not having spent more time with my child", or "I feel that I have too much to do and not enough time or energy to do it all." Whether role diversity would also have been found to sense of excitement or challenge is completely omitted in the research design.

Toward a Theory of Role Accumulation

Role Enhancement

Seiber (1974) offers a different interpretation of multiple roles. Role accumulation can potentially compensate for role strain and have a number of benefits, including (a) role privileges, (b) overall status security, (c) resources for status enhancement and role performance, and (d) enrichment of the personality and ego gratification (Seiber, 1974). Seiber (1974) elaborated on the following:

1. Role Privileges

Every role carries with it certain rights as well as

duties (Seiber, 1974). Examples of these rights include authority, freedoms, and legitimate demands (Seiber, 1974).

Some of these rights are inherent and others are emergent. Inherent rights serve as inducements for recruitment to roles and the continuation of role performance (Seiber, 1974). Emergent rights serve the more specialized function of guaranteeing role compliance, especially when the demands of the roles are increased (Seiber, 1974). Despite the repeated allusion to rights in theoretical discussions of roles, this aspect of roles has never been elaborated on in research.

2. Status Security by Means of Buffer Roles

An individual with a wide array of role partners has the ability to compensate for failure in any particular social sphere by falling back on other relationships (Seiber, 1974). These alternative roles afford compensatory affection, moral support, emergency resources, and perhaps assistance for a renewal of effort in the original role. The accumulation of buffers might be especially critical for the individual who experiencing a crisis, such as a chronically ill child (McCubbin, 1988; Walker et al., 1989; Goldberg, Greenberger, Hamil, & O'Neil, 1992).

3. Resources for Status Enhancement and Role Performance

In addition to a sense of overall status security, role partners afford a variety of incidental or unearned emoluments. Some examples of these resources are: recommendations, invitations, and gifts. Since nothing in the world can be subjected to "indefinite expansion", we

may presume that Goode (1960) had in mind some relatively restrictive boundaries. However, the opportunity to accumulate unearned emoluments, and to transfer these privileges from one role to another as resources for role enactment suggest that the boundaries of the role system may be very wide indeed (Seiber, 1974).

A further consequence of accumulating resources through multiple roles is that the individual becomes more valuable to the family. The family member assumes the role of a central gate-keeper with direct access to a source of valuables (Seiber, 1974).

4. Personality Enrichment and Ego Gratification

In addition to providing privileges, buffers and resources, role accumulation may enrich the personality and enhance one's self-conception (Seiber, 1974). Tolerance of discrepant viewpoints, exposure to many resources of information, and flexibility, all spill over the from role accumulation. In fact, role accumulation may be essential to mental health (Pearlin et al., 1981; Walker et al., 1989).

It is also possible to imagine situations in which role overload and perhaps role conflict produce a good deal of ego-gratification, namely, the sense of being appreciated or needed by diverse role partners (Seiber, 1974). Some of the strain arising from multiple roles could be converted into social prestige, thereby offering a certain amount of psychic compensation (Seiber, 1974).

In conclusion, Goode's (1960) analyses of role strain

was a classic example of the scarcity hypothesis, viewing human energy as a finite commodity which was in scarce supply. The scarcity approach of energy, is clearly evident in the work of Freud (1955).

Marks (1977) suggested that the energy conditions of the body at any given moment is psychologically abundant rather than scarce. Marks (1977) referred to this interpretation as the expansion hypothesis of human energy. Role enhancement theory remains grounded in separate sphere structural-functionalism tradition. Marks (1977) continues to espouse the assumption that the difference in work experience of men and women is based on gender rather than on power.

Role Negotiation

The theoretical groundwork for contemporary studies of roles in dual-earner families was laid in some of the earliest investigations of working women (Maril, 1993). Hoffman (1989) suggested that maternal employment is not a unitary phenomenon, but rather a collection of diverse patterns that could be best understood by assessing whether or not the mother enjoys working. Research on maternal perceptions reinforce this view (Hock, DeMeis, & McBride, 1988; Alvarez, 1985; Greenberger & O'Neil, 1992).

Kanter (1977) asserted that the unswerving commitment to a two-sphere ideology prevented researchers from recognizing the overlap between work and family, between male and female. Structural-functionalist analyses, including role theory, obscure our understanding of the

power structures underlying the interplay between our public and private roles, and the dynamics of oppression that go in hand with these roles (Lopata, 1993).

Symbolic Interaction and Role Accumulation

Symbolic interaction assumes that social interaction is essential to normal personality development and to appropriate social conduct (Stryker, 1980). Interaction produces the social self, that part of the personality which links the individual to society and is an important intervening variable in human behavior (Thoit, 1983). In particular, Mead (1934) described the process through which self-conceptions develop in interaction. The individual acquires a view of him/herself as an objective and meaningful social entity by taking the role of specific and then of generalized others.

Thoit (1983) revealed that the process of taking the role of the generalized other (a) implies that the individual developed an awareness and an acceptance of the social positions occupied in the community and larger society, and (b) suggests that the developed self must be a complex, semipermanent, organized structure.

In taking the role of the generalized other, the individual perceives that he/she has been placed by others into recognized and meaningful social categories, or social positions (Stryker, 1980). Social positions are locations within systems of relationships (Merton, 1957). Attached to positions are sets of behavioral expectations or roles (Stryker, 1980). When the individual assigns

certain positional designations and behaves as expected in role relationships with others, he/she can be said to have taken on a set of identities (Styker, 1980; Stryker & Serpe, 1983).

Role requirements give purpose, meaning, direction, and guidance to one's life (Thoit, 1983). The greater the number of identities held, the stronger one's sense of meaningful, guided existence. The more identities, the more existential security (Thoit, 1983). A sense of meaningful existence and purposeful, ordered behavior are crucial to psychological health (Pearlin et al., 1981; Pugliesi, 1988; Walker et al., 1989).

Stryker and Serpe (1983) suggested that identities may be organized in a "salience hierarchy", where salience is the probability that a given identity will be involved across a variety of situations. Salience is determined by the amount of commitment an individual has to an identity. Commitment is a function of the number, affective importance, and multiplexity (or overlap) of network ties that are formed by the person enacting an identity (Stryker & Serpe, 1983). Identities are hierarchically organized by degree of commitment, or what might be called their "network-embeddedness" (Stryker & Serpe, 1983).

Marks (1977) argued that commitment is a function of subjective importance accorded to a role or identity. A high commitment to an identity with little time spent or effort enacting it has also been reinforced by Marks (1977).

Interestingly, many theorists deemphasis the notion that social positions are culturally ranked (Thoits, 1983). In conclusion, these considerations suggest that identities may be weighted by cultural rank or by a variety of measures of subjective commitment.

Stress and Coping Theory

Historically, a conceptual overview on coping strategies relied upon evolutionary theory, psychoanalytic concepts, and human development throughout the life cycle (Moos, 1987). Intraindividual approaches have examined cognitive appraisal, coping, and encounter outcomes (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). Coping is defined as the mother's constantly changing cognitive and behavioral efforts to manage specific external and/or internal stressors that are appraised as taxing or exceeding the mother's resources such as a chronically ill child (Folkman et al., 1986).

Although families demonstrate generally positive and stable adaptation in terms of rearing a child with special needs, persistent challenges remain in regard to mother-child interactions and maternal perceptions of stress (Phillips, 1991; Shonkoff, J., Hauser-Cram, P., Krauss, M., & Upshur, C., 1992; Brust, Leonard, & Seilaff, 1992; Williams, Lorenzo, Borja, 1993; Burkart, 1993). Many stressors can be identified for the mother as well as the family system (McCubbin & Figley, 1983):

1. Strained family relationships reflected in overprotectiveness of the child, mother-child coalitions,

worry, and sibling competition for time.

2. Modifications in activities and personal goals.

3. The burden of increased tasks and time commitments.

4. Increased financial burden.

5. Social isolation because of the child's illness or unavailability of child care.

6. Grieving associated with restricted life opportunities.

Coping skills can be organized into three domains according to their primary focus (Moos, 1987). First, appraisal-focused coping entails attempts to understand and find a pattern of meaning in a crisis (Moos, 1987). The process of appraisal and reappraisal is a form of coping in that it serves to modify the meaning and comprehend the threat aroused by a situation. Second, problem-focused coping seeks to confront the reality of a crisis and its aftermath by dealing with the tangible consequences and trying to construct a more satisfying situation (Moos, 1987). Third, emotion-focused coping aims to manage the feelings provided by a crisis and to maintain affective equilibrium (Moos, 1987).

Lazarus and colleagues (1986) have conceptualized coping as a transactional, reciprocal process between the individual and environment. Coping is comprised of two functions: altering the troubled person-environment relation causing the distress (problem-focused coping) and regulating stressful emotions (emotion-focused coping) (Folkman & Lazarus, 1980; Folkman & Lazarus, 1985).

Emotion-regulating modes of coping focus on primitive methods that attempt to regulate the emotional response to the stressful situation (Folkman & Lazarus, 1985). While they are not directed at changing the objective circumstances, emotion-regulating coping methods can create an illusion of comfort and safety (Folkman & Lazarus, 1985).

The immediate outcome of an encounter refers to the person's judgment of the extent to which the encounter was resolved successfully (Folkman et al., 1986). The overall judgment is based on the individual's values, goals, and social context.

Cognitive/Emotional Coping

Recent mood and memory research has argued against the separation of emotion and cognition (Kaufman, 1992). The following account has given an alternative explanation of coping without the artificial severance of emotion and cognition.

Work on stress has demonstrated that conflict of intention resided in the immediate life of the sufferer (Oatley, 1992). Emotions are based upon goals and plans and goal conflict is a rich source of emotions (Oatley, 1992). To resolve conflicts, image schemata play a crucial role in the formation of networks of meaning (Johnson, 1987).

Coping responses to perceived stress involve nonpropositional properties of cognition such as imagination and wisdom. The creative individual is

someone who creates new knowledge and whose interest in existing knowledge is often figuring out how to go beyond its limits (Sternberg, 1990).

Intuition also plays a vital role in the development of coping responses because it carries perceptual material to the central self (Noddings & Shore, 1984). At the first moment of knowing, one in which perceptual material is carried to both the central self and reason, we have that initial flash, the sense that this is the way to go. Later our analytic and conceptual work will yield a solution or uplift and intuition carries a final flash of clarity, as clear understanding (Noddings & Shore, 1984).

There are two modes of cognitive/emotive functioning, logico-scientific and narrative (Bruner, 1986). The propositional content is possible only by virtue of a complex web of nonpropositional schematic structures that emerge from our bodily experience (Johnson, 1987).

This exploration addressed intentions and the endless ways for them to run into trouble. There is a need for a richer account of meaning and reason or a cogmotional dimension of maternal coping in response to a chronically ill child.

This account will include the following: 1) embodied schematas called into play by stress perception and comprehension in an effort to cope, 2) recurrent patterns, of action or for action, in these ongoing ordering activities that emerge as meaningful structures or coping

responses, and 3) metaphors that are creative in giving rise to structure within our experience as they operate on schematas of balance, containers, blockage, and paths (Johnson, 1987).

Conclusion

The image of the modern American woman as harried, stressed, and driven by role conflict is not universal (Lopata, 1993). Several social scientists have pointed out that a complex social life space, with involvement in roles in several institutions, is psychologically rewarding (Seiber, 1974; Marks, 1977). The opposite, a narrow social life space focused on a single area of life such as career or the family, is in fact detrimental to physical and mental health in view of the wealth of opportunities in the modern world (Pearlin et al., 1981; Walker et al., 1989; Lopata, 1993). Baruch and colleagues (1987) report that women enjoy the feelings of mastery and independence they derive from multiple involvements. They have a strong sense of selfhood and self-worth, knowing they are successful in their roles and in coordinating their lives (Lopata, 1993).

A major concern rests with mothers of chronically ill children and their opportunity to explore multiple roles. The following review of literature on women and work will reveal the long procession of research from role strain to maternal attitudes and perceptions of role accumulation. The literature review will also explore maternal perceptions of a career, coping with a child's chronic illness, and maternal well-being.

Review of Literature

Role Strain

The importance of research into stress processes has been made clear by increasing evidence about the negative effects of psychological and social stressors on physical and mental health (Baruch et al., 1987). The work role has been viewed as the most likely catalyst for psychological distress and impaired health in women (Friedman & Rosenman, 1974).

For women, the gratifications associated with family roles, particularly the roles of wife and mother, have been emphasized over the costs. The concepts of role overload (typically defined as having to much to do) and role conflict (typically defined as feeling pulled apart by conflicting demands) are primarily used to analyze the complications that employment causes for women, especially employed mothers (Baruch et al., 1987).

Keith and Schafer (1980) explored role strain and depression in 135 two-job families. Work-family role strain was measured by the frequency with which respondents felt bothered by four situations: feeling that their job outside the home may interfere with their family life; feeling that family life may interfere with the job outside the home; thinking that the amount of work may interfere with how well it gets done; and feeling that others in the family will not do household tasks as well as they would do them.

Women in two-job families experienced significantly more work-family role strain than men. Women were

especially bothered that their job interfered with their family and the amount of work they had to do interfered with how well it was done (Keith & Schafer, 1980). In addition, women were significantly more depressed then men. A major source of depression among women was their perception of their financial situation relative to that of others (Keith & Schafer, 1980). In conclusion, factors in the two-job family that fostered role strain were tied to time demands, both in the workplace and home and to stage in the life cycle (Keith & Schafer, 1980).

Repetti (1987) attempted to enlighten the understanding of processes that connect work and family settings. Repetti's Bank Study (1987) examined the relationships among the social environment at work, individual psychological well-being, and family life. One portion of the data demonstrated that the overall social climate at work and supervisor relations in particular, were related to the mental health of female bank employees.

The data used in the analyses were derived from family surveys completed by 44 female bank employees and 24 of their husbands. Thirty-five of the women were living with husbands at the time, and 35 had at least one child. All participants had completed high school; 16% had a college degree. The average age of the sample women was 37 years.

The questionnaire study was designed to address occupational conditions, work-family context, and family life. The results indicate that a significant portion of variance in marital and family relations and family

conflict could be explained by social climate, role overload, and husband's disapproval (Repetti, 1987). The husbands' disapproval of employment for married women was a strong indicator of less satisfying relations, more conflict, and less cohesion at home (Repetti, 1987). Lack of cohesion in the family was also significantly predicted by an unpleasant social climate at work. An overload of time commitments to work and family tasks accounted for most of the variance in women's reports of negative effects of their jobs on the family.

Perhaps the most exciting aspect of the results was that the work-family connection was confirmed using an independent measure of family outcomes. Husbands' reports of marital and family relations, cohesion in the family, and the effect that their wives' employment had on the family were significantly related to their wives' descriptions of the social climate at work and role overload (Repetti, 1987).

Guelzow, Bird, and Koball (1991) explored the stress process for dual-career women with Pearlin and Schooler's (1978) model of stress and coping. Role strain is identified as the source of the stress process. In the present study, role strain is further conceptualized as the individual's appraisal of the level of conflict between roles and of the degree of overload experienced from attempting to meet multiple role (Guelzow et al., 1991).

This study utilized data from 163 women and 149 men collected in 1986 from a purposive sample of dual-career

couples. Criteria for inclusion were having a college degree, being employed full-time in a profession commensurate with education and training, and being married to a person of similar description.

For men and women, having greater numbers of children was directly associated with greater parental stress and indirectly associated greater distress (Guelzow et al., 1991). The exogenous child variables were more influential in the stress process for men than women. For men, there was a significant positive direct effect from number of children to role strain and marital stress and a positive indirect path to marital stress (Guelzow et al., 1991).

For both men and women, a longer work week was directly associated with higher levels of marital relationship equity or flexibility, empathy, and nuturance (Guelzow et al., 1991). Women reported that working longer hours were associated with higher levels of role strain. However, the total effect from hours worked to marital equity for women was positive (Guelzow et al., 1991).

Since employed mothers of preschool children have become the norm in our society and because few studies have found negative consequences for children of employed mothers, dual-career may be experiencing less normative conflict when children are young (Guelzow et al., 1991). They have probably structured their work hours and schedules into a manageable set of demands that allow them to care for children's needs while also meeting career obligations. Perhaps men are sharing household and child-

care tasks to the extent that the number of children versus age of the youngest child becomes the more important variable in the stress process for women (Guelzow et al., 1991).

Once role strain is perceived, its influence is pervasive (Guelzow et al., 1991). Regardless of gender, higher role strain is significantly associated with greater emotional stress and physical symptomology (Guelzow et al., 1991). Though more frequent use of cognitive restructuring is related to lower marital, professional, and parental stress for men, lower professional stress for women, and lower physical distress for both, coping responses and resources did not significantly attenuate the impact of role strain in this study (Guelzow et al., 1991).

For example, men with higher role strain indicate significantly greater use of role reduction coping strategies but no consequent lessening of stress or distress (Guelzow et al, 1991). For women, more frequent use of cognitive restructuring and positive perceptions of marital equity are useful in avoiding stress only when role strain is low (Guelzow et al., 1991). When role strain is high, women apparently find it hard to focus on the positive aspects of their lives and to overlook the disadvantages or to give and receive support, affection, and understanding (Guelzow et al, 1991). Women in this study indicate being highly committed to their professions and are combining full-time employment with marital and parental roles without consequent high levels of distress.

In conclusion, for these women, neither role strain nor stress is significantly related to having preschool children, which suggests that they may be resolving some of the guilt and role conflict reported in previous research (Guelzow et al., 1991).

Schwartz (1992) utilized a qualitative approach to interview over 200 female MBA students only to reveal that women still find themselves blocked in their career advancement and stymied in their efforts to combine work and family. Women join their employers in denying the impact of maternity, knowing it would be career suicide to do otherwise (Schwartz, 1992).

Research during the past decade on early and extensive maternal employment and infant day care led Belsky (1988) to call attention to developmental risks associated with more than 20 hours per week of nonparental care initiated in the first year. A repeated analysis based upon the findings of Vandell and Corasaniti (1990), and the National Longitudinal Survey of Youth data base provide only mixed support for Belsky's (1988) conclusion that more than 20 hours per week of nonparental care in the first year of life is a risk factor for the development of aggression and noncompliance (Vandell & Corasaniti, 1990; Belsky & Eggebeen, 1991).

O'Neil and Greenberger (1994) challenged Marks (1977) position that role overload and role conflict are not the result of an objective excess of role demands, but of an individual's psychological commitment to their social

roles. Marks predicted that minimal role strain would occur in a system of "balanced, positive commitments" to primary roles- that is above average commitment to work and parental roles. This view is consistent with recent theoretical work linking role commitment to identity theory-work suggesting that commitment to a role is related to the sense of identity through a reciprocal process, in which commitment strengthens or increases role-relevant actions (Burke & Reitzes, 1991). People who occupy both parent and worker roles as central to their identity view demands of role related activities in a more positive light.

Little research has addressed the importance of role commitment to women's well-being or the notion that particular patterns of role commitments are optimal for minimizing role strain and conflict. O'Neil and Greenberger (1994) tested Mark's hypothesis that certain patterns of commitment to roles dispose individuals to a greater or lesser levels of role strain and conflict.

In this study, the sample consisted of 194 middle-class mothers who completed several self-report measures of role commitment, role strain, role quality, role support, and occupation. Women's patterns of commitment to work and parenting were unrelated to their level of role strain. Interestingly, for women with high dual commitments to both work and parenting in professional/managerial jobs, role strain was indeed lower (O'Neil & Greenberger, 1994).

A strikingly different finding emerged for women with

either of the two patterns characterized by low work commitment (low work-low parental commitment or low work-high parental commitment): role strain tended to be less intense among women who did not hold professional or managerial jobs (O'Neil & Greenberger, 1994). Among women who were highly invested in work but not in parenting, positive experiences in the disfavored parental role were associated with lower role strain (O'Neil & Greenberger, 1994).

Inspection of the data revealed that co-worker support was most significant to women with low commitment to both work and parenting (O'Neil & Greenberger, 1994). In addition, spouse support and supervisor support had a significant and favorable effect on role strain.

The key findings of this study are: (a) that different patterns of commitments to work and parenting are associated with differences in role strain and (b)) that the relations between different patterns of commitment to social roles and this aspect of well-being are conditioned by the social contexts in which roles are enacted (O'Neil & Greenberger, 1994). For women, moreover, differences in patterns of commitments to work and parenting are relevant to levels of role strain only in the context of other variables. The finding that high role commitments to both work and parenting roles-the pattern of role commitments that would seem to exemplify having too much to do and to little time to do it in-is not associated with significant greater role strain than other patterns deserves attention.

Maternal Perceptions and Attitudes

Regardless of employment status, some women are in their preferred role, whereas others are not (Hock, DeMeis, & McBride, 1988). A women's employment preference, the desire to remain at home or to be employed, probably reflects the psychological balance between motherhood and employment (Hock et al., 1988). A women's preference should be related to her psychological commitment to and appraisal of the roles of mother and worker.

The subjects of this study were selected from 292 primaparous women who participated in a longitudinal study of maternal separation anxiety conducted in a midwestern metropolitan area (Hock et al., 1988). Mothers who preferred to remain at home were more anxious about separation at all four times of measurement, maternity ward, 7 weeks, 8 months, and 14 months. During the course of the first year, mother's became progressively more negative in their beliefs about the effects of separation on the child (Hock et al., 1988).

The women who preferred employment held attitudes toward separation that were most conducive to integrating the roles of motherhood and work (Hock et al., 1988). These women were less apprehensive about separating from their infants and reflected beliefs that their children would not be negatively affected by maternal employment (Hock et al., 1988).

Although employment is generally seen as enhancing women's health (Baruch et al., 1987), having young children

lessens the positive effects of employment on women's well-being (Cleary & Mechanic, 1983; Gore & Mangione, 1983; Kessler & McRae, 1982). Single women who feel that children suffer when their mother works report more role strain than do women who do not share these concerns (Greenberger & O'Neil, 1990).

Alvarez (1985) revealed the relationships between features of maternal employment and mothers' positive descriptions of their three-year old children. The sample consisted of 152 white, two-parent families residing in a city with a metropolitan population of over half a million.

A striking feature was that a clear majority of employed mothers (81%) were generally satisfied with their work (Alvarez, 1985). Apparently there are many elements of employment from which mothers gain some satisfaction. Many mothers (61%) reported enjoying the contact they had with people (Alvarez, 1985). Approximately half of the mothers expressed gaining a sense of personal autonomy. This added sense of independence was more often associated with part-time (64%) rather than full-time (31%) employment (Alvarez, 1985).

Only 28% of the mothers stated that their employment directly conflicted with their familiar roles and responsibilities (Alvarez, 1985). As would be expected, this was more often true for mothers employed full-time rather than part-time (34% vs. 20%), but this difference was not great enough to reach significance (Alvarez, 1985).

Greenberger and O'Neil (1990) examined the

relationship of employed parents' concerns about their children to parents' own well-being and orientation to work. Eighty married men and 169 women in dual-career families, and 72 single employed women, all parents of a three to four year old child, completed a mailed survey.

The core hypothesis of this study, that employed parents' concerns about their children will have negative associations with parental well-being and feelings about work, was clearly supported. All associations between measures of child-related concerns and measures of parental outcomes were in the expected, negative direction, suggesting that concerns about their children operate as stressors in adults' lives.

Interestingly, the findings of this study also do not support the notion that mothers' lives would be affected more strongly than fathers' lives by concerns about their children's well-being- quality of child care and problem behaviors (Greenberger & O'Neil, 1990). Child-related concerns contributed significantly more variance to the explanation of depression and health symptoms of fathers than mothers (Greenberger & O'Neil , 1990).

Goldberg, Greenberger, and Hamil (1992) assessed the importance of a number of major factors in single mothers' lives that are associated with variations in their well-being and perceptions of their children's behavior. The sample in the present study consisted of 76 single, employed women who were parents of a preschool child. Approximately 86% of the study participants were White; 22%

were single and had never been married, 46% were divorced, and 30% were separated from their spouse.

Women who had become single parents most recently and who expressed more concern about the quality of their child's substitute care, reported significantly higher levels of depression (Goldberg et al., 1992). Greater role strain was associated significantly with the belief that maternal employment has negative consequences for children (Goldberg et al., 1992). Significantly less role strain was reported by single mothers' who had neighbors who could provide emotional and instrumental support (Goldberg et al., 1992).

At a trend level, demands from the work role-working more hours and being absorbed in work-contributed to greater role strain (Goldberg et al., 1992). Work, family demands, and social support each made significant contributions to single mothers' perceptions of problem behavior.

More problem behaviors were perceived by mothers who had become single parents recently, who had greater concerns about the costs of maternal employment for children, and who had more concern about the quality of their children's alternate care. Less negative perceptions of children's behaviors were held by mothers who had friends and family they could depend on, who viewed their supervisors and co-workers as more supportive, and who had helpful neighbors (Goldberg et al., 1992).

Greenberger and O'Neil (1992) found no evidence

linking part-time employment with a more positive perception of sons. Indeed, maternal employment, qualified by mothers' level of education and gender of child, was more strongly associated with fathers' and teachers' perceptions of children than with mothers' perceptions (Greenberger & O'Neil, 1992).

Parents were recruited through 68 preschools in four cities. The resulting pool of subjects for the Time 1 phase of the study consisted of 238 mothers and 116 fathers of a preschool child. While approximately 90% of the sample was white, all participants were married and employed.

Employed mothers with more education reported positive perceptions of their children and fewer problem behaviors in their preschool children (Greenberger & O'Neil, 1992). As was the case for maternal perceptions, fathers' perceptions of their children were not associated with mothers' employment status. Mothers' level of education made a unique contribution to problem behavior, with fathers married to better educated women viewing their children in less negative light (Greenberger & O'Neil, 1992). Girls received significantly more favorable rating than boys from their fathers, that is, ratings of more positive traits and fewer problem behaviors.

The results failed to support a key finding of the Bronfenbrenner (1984) research that part-time maternal employment might be advantageous to boys (Greenberger & O'Neil, 1992). Utilization of non-maternal care and paternal involvement might contribute to the differences in

the studies.

Another finding revealed that men with less educated wives who were employed either part or full time saw more evidence of problem behaviors in their preschool children. Teachers also viewed the children of better educated mothers in a more favorable light. Teachers viewed the children of better educated mothers in more positive terms only when mothers were employed; they described children of less well educated mothers as exhibiting more positive attributes when their mothers were not employed (Greenberger & O'Neil, 1992). Teachers also viewed girls more favorably than boys (Greenberger & O'Neil, 1992).

A study completed by Shuster (1993) examined mothers' feelings and perceptions about combining motherhood, employment, and childcare use during their firstborns' infancy. Schuster (1993) assumes a similar posture to Plunkett (1985) and Benn (1986), reiterating that working provides feelings of independence and individuation, and the symbiotic relationship with a newborn arouse feelings related to dependency toward the infant and toward one's own mother.

When the mother has resolved her feelings related to dependency and is able to experience gratification as a mother, her work can serve to meet her own needs for achieving a sense of competency and independence (Plunkett, 1985; Benn, 1986). The contrary position suggested that if the mother has conflicts about mothering, these feelings undermine her relationship with the infant, and she may

distance herself from her baby, reinforcing her doubts about her competency as a mother; her work becomes an unhealthy escape from parenting (Plunkett, 1985; Benn, 1986).

The mothers in the study conducted by Shuster (1993) were employed full-time prior to the birth of their baby and planned to return at least part-time within three months of their baby's work. Subjects included 33 Caucasian, one Black, and three Asian women. Questionnaires were completed in two visits to their homes.

At the home visits, many mothers expressed concerns related to their anticipated efforts to integrate motherhood with employment, especially the use of child care. Prior to their infants' day care entry, 60% of the mothers thought the baby would be better off at home; after entry into day care, only 38.9% responded similarly (Shuster, 1993). Maternal concerns that the baby will be more attached to the day care provider also diminished from 45.9% to 13.5% (Shuster, 1993).

These mothers underlying psychological states coupled with their belief system about the maternal role and the role of care takers seem to have a profound relationship with their effectiveness in integrating responsive, contingent parenting with employment (Shuster, 1993).

A typology of employed, first-time mother was generated from the data:

1. The enamored mothers, who viewed themselves as inherently more competent than others in caring for their

own infants, seemed very successful in combining employment with sensitive mothering behaviors.

2. The managers, who viewed caregiving as a shared role among equals and were positive about organizing their multiple roles, demonstrated some success at maternal efforts.

3. Of greater concern were the distressed mothers, who believed in the exclusive role of one primary provider for their infant and expressed feelings of competition with their infants child care provider.

4. Of greatest concern were the disengaged mothers, who were very detached from their infants and seemed to project their mothering responsibility onto their infant's child care provider (Shuster, 1993).

In conclusion, the significant negative correlation between women's desire to work and their interactions with their infant, age four to five months, could be explained as the inability of women who prefer to work to interact with their infants as successfully as women who prefer to be at home with their infants (Shuster, 1993).

Consequences of Role Accumulation

Verbrugge (1982) reviewed research targeting health status and multiple roles. Role accumulation is associated with improved health status (Verbrugge, 1982). It also shifts women's preference toward medical care for symptoms instead of self-care. The Health in Detroit (HID) study and the 1977-78 Health Interview Survey (HIS) provide insight into how multiple roles affect women's health. In

the Detroit study women who had three roles employed, married, children) had the best general health status, lowest morbidity, least-long disability, and least drug use. The HIS data also showed that multiple roles and good health were linked: employed married women had the best health status, least restricted activity, and chronic limitations. In contrast, women with none of these roles (nonmarried, nonemployed, without children) had the worst health status, most disability, most doctor visits, and relatively high drug use. Accumulating roles had additive effects, two of them are better than one, and three are best of all, with employment being the most critical of the three roles (Verbrugge, 1982).

Drawing upon symbolic interactionist theory, multiple identities enacted in role relationships has given meaning and guidance to behavior, and should prevent anxiety, depression, and disordered conduct (Thoits, 1983). Thoit's study (1983) uses panel data from the New Haven community survey to explore multiple identities and psychological well-being.

The sample consisted of 720 adult men and women selected at random from a community mental health center. The following social positions could be held: spouse, parent, employee, student, organizational member, church member, neighbor, and friend. Psychological distress is measured by the number of psychological and psychosomatic symptoms.

Thoit (1983) argued that multiple identities

provide actors with existential meaning and behavioral guidance, and that these qualities are essential to psychological well-being and organized, functional behavior. The research indicated that individuals who possess numerous identities do report significantly less psychological distress (Thoits, 1983). No evidence of a curvilinear relationship between identity accumulation and distress was found, suggesting that multiple identity involvements do not necessarily result in role strain or role conflict, as has previously been argued by Goode (1960) and Sarbin and Allen (1968).

The effects of identity change are not simply additive as previously documented (Verbrugge, 1982) but conditional upon the actors relative degree of isolation or integration. Thoit (1983) explained that if commitment is conceptualized in terms of network-embeddedness, roles are not independent of one another and role partners often overlap. Social roles are often nested in one another (Stryker & Serpe, 1983) suggesting that integrated individuals have both more to lose due to identity loss and more to gain from identity accumulation than isolated individuals.

The results supported the network-embeddedness proposition: for each identity gain, the distress of initially integrated actors is reduced more than that of initially isolated actors (Thoits, 1983). For each identity loss, initially integrated actors are distressed more than the initially isolated individuals (Thoits, 1983).

Pietromonaco, Manis, and Frohardt-Lane (1986) challenged traditional role theories that suggest the competing demands of different social tasks produce role strain or conflict (Goode, 1960; Sarbin & Allen, 1968). These theories imply that people have limited energy and resources and may become overburdened by too many role relationships (Goode, 1960; Sarbin & Allen, 1968).

In contrast, more recent theories suggest that individual may profit from enacting multiple roles (Seiber, 1974; Marks, 1977). Performing several roles may increase individuals' privileges and resources in their social environment, assist in establishing social and economic status and security, act as a buffer for problems or failures in any single life domain, and enhance feelings of self-worth (Seiber, 1974).

The data analyzed in this study were part of a survey conducted by the Center for Continuing Education of Women at the University of Michigan. The sample consisted of 500 employed women, ages 22-66 years, who had received professional or graduate degrees.

The analysis revealed that self-esteem increased significantly with the number of roles held i.e. worker, parent, partner, student, volunteer. Women who were working but who did not hold any other social roles showed the lowest self-esteem. In contrast, women who worked, had a partner and one or more children, and engaged in at least one volunteer activity reported the most positive feelings about themselves (Pietromonaco et al., 1986).

Women with three, four, and five roles expressed the greatest satisfaction with their jobs, while women with one or two roles were the least satisfied (Pietromonaco et al., 1986). For full-time workers, women with one and two roles were less satisfied than those with three, four, or five roles (Pietromonaco et al., 1986).

Most respondents agreed that their lives involved a fairly high level of stress, but this finding was independent of the number of roles held. Women at all role levels designated about the same number of stressful life domains (e.g., work, partner, family, self, health) in response to the question, "What is the major source of stress, uncertainty, or conflict in your life today"? Typical responses from women without partners and children were that not having a partner or children was stressful, while those with partners and children mentioned problems with family members (Pietromonaco et al., 1986).

In conclusion, multiple roles may be psychologically beneficial. While women who held more roles did not consistently report more satisfaction with marital or parental roles, they also did not report greater life stress (Pietromonaco et al., 1986). Still further, women holding multiple roles showed a slight tendency to list more life arenas as pleasurable (Pietromonaco et al., 1986).

Pugliesi (1988) hypothesized that social roles, especially employment for women, influence social support resources and self-esteem. Social support resources and

esteem, in turn, positively affect well-being or psychological distress and zest (Pugliesi, 1988). Research indicates that social support may act as a buffer for life stresses as well as having a direct negative effect on psychological distress (Caplan, Cobb, French, Harrison, & Pinneau, 1975; Thoits, 1983).

Autonomy/control is related to the position one holds in the authority structure of a workplace and the nature of the tasks performed (Pugliesi, 1988). Complexity and freedom from authority tend to result in greater self-esteem and self-confidence (Repetti, 1987). Thus, features of work and the work environment appear to affect several dimensions of individual's functioning, including self-esteem and psychological well-being.

The present study examined 534 full or part-time employed women with a national multistage, area probability sample. Results indicated that education, income, and children did not exert significant effects on psychological distress and zest (Pugliesi, 1988). Control/autonomy significantly enhanced social participation and self-esteem; while complexity increased zest; work characteristics had no direct affect upon psychological distress (Pugliesi, 1988).

The results revealed an interesting finding regarding marital status: marriage simultaneously had a negative effect on self-esteem and reduced levels of distress (Pugliesi, 1988). Marriage was not related to social support or zest in this sample of employed women.

Social support and self-esteem have the expected positive effects on well-being. Social participation increased zest and had a negative effect on distress (Pugliesi, 1988). Social participation and work complexity both significantly affected intimate contacts. While work complexity positively affected social participation, it had a negative effect upon intimate contacts (Pugliesi, 1988). In conclusion, the lack of significant effects upon education and income was surprising. It may be that these factors were less important for the well-being of employed women than for women in general.

Coping Behaviors of Employed Mothers

Anderson-Kulman and Paludi (1986) addressed working mothers and the family context in order to predict positive coping. The major assumption in this study was that a working mother's perceptions of and satisfaction with the workplace, family and child care arrangements interact to influence her degree of coping and role strain (Anderson-Kulman & Paludi, 1986).

Subjects consisted of 204 women who ranged from 20 to 42 years of age, 164 mothers were married and 40 mothers were single. The employed mothers completed a set of questionnaires designed to assess the social environment of families, child care satisfaction, job satisfaction, and role strain.

Families of women working part-time scored significantly lower on organization than the families of full-time working mothers (Anderson-Kulman & Paludi, 1986). No significant differences were obtained between married and single working mothers on any of the dependent variables. A significant interaction was obtained between marital status and employment status on the dimension of familial organization. Among the full-time working mothers, married women's families were found to be less organized than those of single mothers (Anderson-Kulman & Paludi, 1986). Conflict was found to be predicted by cohesion, control, expressiveness, and role strain. Furthermore, role strain was predicted by job satisfaction, conflict, and intellectual-cultural orientation (Anderson-Kulman &

Paludi, 1986).

The most frequently endorsed area of conflict was that of home cleaning, followed by a sick child, general household management, financial management, and meal preparation (Anderson-Kalman & Paludi, 1986). Women reported their greatest lack of time was in area of community involvement and hobbies.

Coping among mothers appears to be associated with less familial conflict, greater familial participation in intellectual and cultural activities, and greater satisfaction with their own jobs (Anderson-Kalman & Paludi, 1986). Family characteristics were found to vary as a function of mothers' well being. For example, job satisfaction among working mothers was found to be predictive of family cohesion. Thus, enhancing the level of satisfaction with one's work may be expected to promote positive coping among working mothers and their families (Anderson-Kulman & Paludi, 1986).

Alpert and Culbertson (1987) addressed the daily hassles and coping strategies of dual-earner and nondual-earner women using the Lazarus model. Dual-earner women were defined as those who worked outside the home for a minimum of 30 hours per week for nine months or more during the past year. Nondual-earners were those who either had worked less than stipulated above or who did not work outside the home for pay (Alpert & Culbertson, 1987).

Coping was assessed by using the Ways of Coping Checklist and the Hassles Scale. The forty-four women, with

a mean age of 30, all had two children in the home. More total number of hassles were reported by dual-earner than nondual-earner groups. Interestingly, dual-earner women used significantly more problem-focused as opposed to emotion-focused strategies than nondual-earner women when dealing with practical hassles. No differences were found on the number of emotion-focused coping strategies used by the two groups. There was no significant predominance of emotion-focused coping strategies over problem-focused coping strategies.

Alpert and Culbertson (1987) reflected that although dual-earner women are hassled by more things, they appeared to be using the same coping strategies as nondual-earner women. The results supported the notion that dual-earner women used problem-focused compared with emotion-focused coping strategies more often when handling issues of a practical, work, or family nature. Non-dual earner women used more problem-focused coping strategies when dealing with household hassles. Alpert and Culbertson (1987) drew the conclusion to their research that for women, coping may be a process involving a combination of problem and emotion-focused strategies.

Shipley and Coates (1992) addressed the study of dual-role stress and coping in working mothers. They represented a variety of income status's: Low income and single; low income and married; high income and married; and high income and single.

A content analysis of the interviews revealed problem-

focused and emotion-focused coping behaviors (Folkman & Lazarus, 1986). The problem-focused coping behaviors were subdivided into self-focused coping (taking evening classes, thinking problems through to a solution and then acting upon them), and other-centered focus (talking to a partner and other people including professional counselors). The authors included "palliative" coping, such as alcohol and tobacco consumption and irritability with children, in the emotion-centered category.

Overall, the low income single mothers appeared less action oriented in coping whereas the single, higher income mothers were adept in both self-and other-focused coping. Married women used more problem-focused coping, and had better education, more money, and resources than the low income, single mothers.

Schnittger and Bird (1990) explored coping among dual-career women across the family life cycle. Addition of the parent role provides increased conflict with other life roles (Schnittger & Bird, 1990). Men find that career interests intrude on fathering roles while women state that parenting interferes with career roles (Schnittger & Bird, 1990). As the number of children and importance of parental role increases, so does the degree of role strain for dual-career women (Bird & Ford, 1985; Holmstrom, 1973; Rapoport & Rapoport, 1976; Voydanoff, 1987).

Dual-career women and men utilized a variety of coping strategies to prevent or minimize role demands and conflicts among them (Schnittger & Bird, 1990). Using a

typology proposed by Hall (1972) coping strategies can be classified into three major types:

1. Type I coping, structural role redefinition, refers to attempts to alter external, structurally imposed expectations. It involves dealing with the objective reality of the situation instead of subjective perception or feelings. Behaviors included in this style of coping are: utilizing social support and integrating and eliminating some role activities.

2. Type II coping, personal role redefinition, involves changing one's perceptions and expectations of behavior relative to a given role. Examples include setting priorities, changing attitudes toward roles, and eliminating roles (Hall, 1972).

3. Type III coping, reactive role behavior is an attempt to meet all role expectations simultaneously, assuming that the demands are unchangeable and must be met. This style of coping implies a passive manner of dealing with conflict and would probably represent considerable strain on a person's energies, since they involve attempting to do everything demanded (Hall, 1972).

Behaviors indicating a Type III style of coping are working harder or attempting to plan and organize better. Although Hall's concepts were first used to describe college-educated women who managed multiple roles, his description of coping behavior remain applicable to dual-career families (Schnittger & Bird, 1990).

Women in this study, compared to men, cope

significantly more often by delegating, using social support, cognitive restructuring, and limiting avocational activities (Schnittger & Bird, 1990). Delegation is the most frequently used strategy for both men and women, but women use it significantly more often. Women and men using cognitive restructuring define situations and events unique to the dual-career family pattern as being favorable compared to other alternatives. They believe that the benefits of their lifestyle outweigh the costs. Women limit avocational activities more often than men is consistent with the finding that they experience greater personal role strain (Schnittger & Bird, 1990). It is more sociable acceptable to cut back on community activities or leisure time than child care or spousal support.

Men in this study relied less often on social support than women. It is interesting to note that this sample of dual-career women and men do not differ significantly in how often they cope by subordinating career goals in favor of meeting family needs, compartmentalizing work and family roles, or avoiding certain responsibilities to limit task involvement (Schnittger & Bird, 1990). This finding is important because it provided some evidence of change within dual-career marriages (Poloma, 1972).

Coping strategy use differed by life-cycle stage as well as by gender. Dual-career men and women without children in the home or whose oldest child had left the home cope by subordinating careers significantly less often than do men and women in other stages of the life cycle

(Schnittger & Bird, 1990). Prior to the birth of the birth of the first child and again after children have been reared and have left home, couples usually initiate a more equal division of household work that include a higher proportion of shared tasks (Schnittger & Bird, 1990). Childless couples indicate limiting avocational activities significantly less often than those with adolescent children (Schnittger & Bird, 1990). Couples with school-age children reduce involvement in community activities and leisure pursuits (Schnittger & Bird, 1990).

The dual-career women in this study appeared to evaluate their life circumstances as more challenging than threatening and as a result cope by relying on active problem-solving approaches. In conclusion, these women seem to rely on cognitive restructuring to facilitate a positive appraisal of the chronic stressors in their daily lives.

Mothers and Chronically Ill Children

Shonkoff, Hauser-Cram, Krauss, and Upshur (1992) investigated 190 infants with disabilities and family adaptation. The study sample (mean age = 10.6 months) included 54 children with Down syndrome, 77 with motor impairments, and 59 with developmental delays of uncertain etiology.

Mean educational attainment for both mothers and fathers was relatively high (13.8 years). Slightly over one-third of the mothers were working full or part time outside the home, while 13% of the fathers were not employed full-time. The employment status of the

mothers increased to almost half the sample during the study period, while employment status of fathers remained about the same (Shonkoff et al., 1992).

Slightly over half the mothers in the sample, but less than one in five of the fathers, attended at least one parent group during their first year in an early intervention program (Shonkoff et al., 1992). Mothers of children with Down syndrome and developmental delays had more intensive participation in parent groups than mothers of children with motor impairment. For fathers, no differences in intensity of parent group participation were found with respect to the child's type of disability or level of severity of impairment (Shonkoff et al., 1992).

With respects to adverse effects on the family, mothers, especially the less educated, perceived the personal strain of parenting a child with special needs more strongly than fathers (Shonkoff et al., 1992). Fathers reported greater stress with respect to feelings of attachment or closeness to their children, while mothers reported greater stress with respect to their own health, role restrictions, and relations with their spouse (Shonkoff et al., 1992).

Brust, Leonard, and Seilaff (1992) explored maternal time and the care of a chronically ill child. There is little doubt that caring for a chronically ill child requires more time and is more demanding than caring for healthy children. Tasks included feeding, grooming, bathing, monitoring a child's medications or medical

equipment, scheduling, escorting, and waiting for medical appointments (Brust et al., 1992).

Previously, mothers have reported that time required for this type of child care often resulted in time lost for other activities, such as employment, socializing, time for spouse, other children, and sleep (Brust et al., 1992). These time costs are often cited as contributing to parents' psychologic distress (Brust et al., 1992).

In Brust et al., 1992, 133 mothers of chronically ill children (cystic fibrosis, spina bifida, and cerebral palsy) were asked to estimate the extra time required to care for the children. Children ranged in age from under one year to 17 years (mean six years).

For all tasks, mothers averaged 12 hours a day for their ill child (Brust et al., 1992). Vigilant hours (watching the child and providing emotional support) required most of the time (54%), with child care hours at 27% and household hours at 19% (Brust et al., 1992). Child care and household tasks that required the most time were providing personal care, medical care, and doing extra chores. Tasks that required the least amount of time were waiting in the physicians office, escorting the child to appointments, and managing the child's finances. Increased hours were associated with having a younger child who was both physically and mentally impaired and required more medical treatments (Brust et al., 1992).

Morey and Jones (1993) addressed the severity of

asthma and the impact of the disorder on the mother. Mothers of 218 asthmatic children aged between five and eleven years were involved in the present study. A psychosocial impact questionnaire was given to the mothers in this study. Increasing morbidity in the child appeared to be associated with raised maternal levels of emotional distress, maternal perceptions of poor levels of family communication, and much manipulation of the mother by the child (Morey & Jones, 1993).

Williams, Lorenzo, and Borja (1993) examined the effect of pediatric chronic illness on mothers and siblings. In this study, maternal role behaviors in five areas were included caretaking of well children, housekeeping activities, provider roles, social roles, and marriage role functions.

Chosen by purposive sampling, 100 families of children with neurological and cardiac conditions composed the study. Families were included that had: (a) intact parents; (b) at least two children; (c) no recent death, birth, or illness of other family members; and (d) attendance at the clinic for at least six months prior to the study. The ill children ranged in age from nine months to ten years.

Interviews were given with the mothers and the following results occurred. After onset of the children's illness, mothers reported significant changes in all three activities studied among siblings' household activities and significant decreases in school and social activities

(Williams et al., 1993). After onset of the children's illness, mothers also reported a significant decrease in maternal activities in four of five areas studies: caretaking of well children, housekeeping, provider role-related activities, and social activities. Minimal change was reported in the area of marriage role-related activities (Williams et al., 1993).

Leonard, Johnson, and Brust (1993) addressed problems of caregivers of children with disabilities. During the past 20 years, home-based care programs for children with disabilities have grown rapidly. The financial burden experienced by families of children with disabilities may include high out-of-pocket expenses, loss of employment, or lost career development opportunities.

A significant association existed between the physical and mental health of mothers and multiple impairments of the children (Pahl & Quine, 1987). Another study reported that the absence of a confidant for the mother is associated with psychiatric symptoms (Jessop, Reissman, & Stein, 1988). The present study identified factors that contribute to a caregiver's ability to manage care.

Potential caregivers were selected from applications submitted to Minnesota's Services for Children with Handicaps program. The 132 caregivers who responded to the survey were mothers with the exception of one stepmother and one grandmother. The caregivers were educated, with most having some college education, having two or more

children, and a family median income at $17.000. The children were 18 years or under, ill or disabled for at least six months, and recipients of home care.

Proportionately more caregivers in the not OK group rated their physical health as poor or fair and more in the OK group rated their physical health as excellent (Leonard et al., 1993). Differences in the child's age between the two groups were labeled the OK group, having children younger than six years, and the not OK group, having children older than six years (Leonard et al., 1993). There were no differences between the two groups related to the child's race or sex (Leonard et al., 1993).

Of children with a diagnosis of cerebral palsy, cystic fibrosis, and spina bifida, only mothers of children with cerebral palsy showed differences, with more of those children having mothers in the not OK group (Leonard et al., 1993). There was no difference in the number of hours caregivers worked in paid employment; a mean of 25 hours per week. However, the mean hours per week spent performing caregiving tasks was significantly higher in the not OK group, consistent with the increased severity of health problems (Leonard et al., 1993). Twenty percent of the not OK group and five percent of the OK group identified varied therapies (speech, behavior, nutrition, respiratory, and program skills) as unfulfilled needs (Leonard et al., 1993).

The OK group received significantly more emotional support from family and friends (Leonard et al., 1993).

The critical factor that differentiated those who were managing OK from those who were not OK was the severity of the child's disability. A surprising finding was that a significant number of mothers managing OK identified themselves in rural areas. Although rural families had less access to social services, they were compensated by strong social networks (Leonard et al., 1993).

Burkhart (1993) conducted a qualitative study including three mothers' rich descriptions of their experience of having a child with a chronic illness. The mothers were between the ages of 33 and 40 and each had two children, one of whom had a chronic condition. The chronic conditions, included the following (a) a four year-old female with spina bifida, (b) a eight year old male with Duchenne muscular dystrophy, and (c) a 14 year old male with a seizure disorder.

Participants' reports regarding response to the diagnosis of a chronic condition were filled with shock, grieving, and information seeking (Burkhart, 1993) All the mothers echoed the importance of a close relationship with healthcare professionals and the uncertainty about the trajectory of their child's condition (Burkhart, 1993).

Each participant identified time as an important aspect of life when dealing with the chronicity of the child's condition. Regimens, therapies, and attending to the child's needs requires so much time that often little time is left for anything else (Burkhart, 1993). A

prevalent theme when describing a time when they felt really healthy was "get-away time." The mothers characterized the get-away time as time when they felt "at peace," "strong," "relaxed," "carefree," and "alive," These get-away times were described in great depth, as if reminiscing about a peaceful time important to their own well-being (Burkhart, 1993).

Turner-Henson (1993) explored maternal perceptions of environment in the management of a chronically ill child. Environment plays a critical role in supporting families, ameliorating isolation, and providing resources.

A secondary analysis of two existing data bases (Holaday & Turner-Henson, 1991; U.S. Census, 1980) was used in this study. A stratified random sample was drawn from a sampling frame of 323 mothers. These mothers ranged from 25 to 54 years with the majority of mothers in the 35 to 44 years group. The majority of mothers had graduated from high school with some college credits. More than half the mothers (58%) were employed outside the home. The majority of the sample (67%) resided in dual-parent households.

Relationships were found between mothers' perceptions and environmental variables. Environmental factors such as economic, educational, population density, resources and employment opportunities shape the environmental context for families with a chronically ill child (Turner-Henson, 1993). As seen in this study, mothers who resided in environments with high levels of female employment

expressed a greater dissatisfaction about neighborhood resources (Turner-Henson, 1993).

Coping Behaviors In the Care of a Chronically Ill Child

McCubbin and McCubbin (1983) developed a Coping Health Inventory to assess parental coping patterns in the care of a chronically ill child. Three major coping patterns emerged:

1. Maintaining family integration, cooperation, and an optimistic definition of the situation;

2. Maintaining social support, self-esteem, and psychological stability; and

3. Understanding the medical situation through communication with other parents and consultation with the medical staff.

When used by the mother, all three coping patterns are associated with the family interpersonal-relationships (McCubbin & McCubbin, 1983). Specifically, mother's coping efforts are directed at family integration, cooperation, maintaining social support, emotional stability, and expressiveness. In contrast, two coping patterns, family and medical, used by the father are associated primarily with system maintenance dimensions of family life. The father's two coping patterns were validated by their association with conflict, organization, and control.

McCubbin (1988) explored family stress, resources, parental coping, and family types in a family with a child diagnosed with a myelomeningocele. Studies of stress mediators in mothers of chronically ill/handicapped

children have shown that use of personal, family, and community resources, feeling secure in the marital relationship, and use of social support networks were related to more positive adaptation outcomes (McCubbin, 1988).

Previous studies examining the relationships between the family system and the chronically ill child's health showed an inverse relationship between the level of family stress and the health of the child (McCubbin & Patterson, 1983). Coping strategies used by both mothers and fathers were found to be related to improvements in the child's health status. Coping strategies are viewed as a dynamic interaction between resources, perceptions, and behavioral responses (McCubbin, 1988).

The sample was drawn from 178 families who had been seen at a clinic in the upper midwest. This clinic treated children born with a myleomeningocele or a neural tube disorder. Because of the malformation of the bony spine and spinal cord, the condition is recognizable at birth and has a profound effect upon parents expecting a normal child (McCubbin, 1988).

Fifty-eight families in the sample were two-parent families and 11 were single parent families. The mean age for the fathers was 37 and the mean age for the mothers was 34 years of age. Each family was sent a set of questionnaires that included measures on family stressors and demands, family resources, parental coping, and family types. In addition, the child's overall physical health

status was assessed on a four-point scale, including four dimensions: (a) mental status, (b) CNS functioning, (c) age appropriate physical development, and (d) general appearance.

In this sample disease severity was also considered and the family resource variable of financial well-being emerged as the only family predictor in the mildly impaired child (McCubbin, 1988). Almost two thirds of the mothers of the mildly impaired children in this sample were not employed outside the home. Because of the demands of the home care for the child, this situation may preclude the mother's seeking outside employment and thus curtail a source of family income which could enhance financial well-being (McCubbin, 1988).

In families with a moderately impaired child, resource strains was the best predictor of the child's health status. Father's coping behaviors, related to understanding the health care situation through consultation with the health care team, was also significant in predicting the number of active health problems in the moderately impaired child (McCubbin, 1988).

In families with a severely impaired myelo child, family resources related to esteem/communication and a balanced family type (McCubbin, 1988). The family resource variable of mastery over family events and outcomes were found to explain 80% of the variability in the health problems with the severely impaired child (McCubbin, 1988).

The results of this study indicated that the severity

of the child's impairment does play a role in the management of family life with a chronically ill child. The more severe the child's disability, the greater the demands and the response from the family system. An increase in the level of family stress may also tend to increase the child's health problems (McCubbin, 1988).

Social Support

Recent studies commented on an awareness of the impact of childhood chronic illness on different aspects of parents' lives. Several researchers suggested that mothers are the primary caregivers and are, therefore, more heavily burdened both psychologically and socially (McCubbin & Patterson, 1983; Sabbeth, 1984).

Research has commented on the impact of the child's chronic illness on the mother's mental health: high levels of worry, depression, guilt, and distress are among its most common features (Breslau & Mortimer, 1982). Mothers of chronically ill children who had fewer social resources also reported greater caregiving burdens (Sabbeth, 1984).

A study comprised of 90 mothers of children six to ten year of age with chronic illnesses and 92 mothers of healthy children six to ten years of age answered questionnaires related to loneliness and social support (Florian & Krulik, 1991). Mothers of sick children have higher loneliness scores than mothers of healthy children. However, social network size and amount of perceived support - both affect and affirmation - are larger in them

(Florian & Krulik, 1991).

In the second stage of the data analysis, the mothers were divided into two groups: mothers of children with life-threatening diseases and mothers with chronic diseases. An analysis revealed that personal and demographic variables did not significantly affect loneliness but did affect perceived social support especially the mother's level of education (Florian & Krulik, 1991). In the life-threatening group, illness severity contributed significantly to the loneliness score, social support network, and amount of perceived social support (Florian & Krulik, 1991). The more severe the illness, the higher the loneliness scores and both the network and social support were smaller.

Pelletier, Godin, Lepage, and Dussault (1994) explored the characteristics of social networks and social support of mothers of chronically ill children. The majority of children were asthmatics ages six to eighteen years. Sixty percent of the mothers either worked full-time or part-time.

The three most important figures mentioned by the mothers were members of the immediate family, spouse, and professionals. Mothers received a relatively good amount of support of all kinds. The types of support most frequently received from their social networks were emotional and appraisal support (Pelletier et al., 1994).

Results indicated that mothers wanted more support than they received, particularly emotional, appraisal,

and informational support (Pelletier et al., 1994). Among the feelings expressed, there is a need for increased awareness about what it means to a mother to have a sick child as well as a need to be able to share personal feelings and worries about their child (Pelletier et al., 1994). Mothers also need to be praised and encouraged in their ability and manner of taking care of their child. The mothers are also asking for more information from professionals on ways to handle the daily care of their sick child (Pelletier et al., 1994). Finally, the results of the present study also suggest that mothers receive lower support if the child is an adolescent, the father has a higher level of education, and the family income is middle to low (Pelletier et al., 1994).

Depression

Gore and Mangione (1983) examined the relationships between gender, social roles, and symptoms of psychological distress through an analysis of survey data from a metropolitan sample. Gore and Mangione (1983) explain the differences between additive and interactive models of gender and gender-related influences of mental health. Under an additive model, a social-role framework, the benefits and liabilities of work, marriage, and other structured social experiences should be identical for all populations (Gore & Mangione, 1983). From this structural viewpoint, the mental health of men and women will become more similar as their roles become more alike.

Alternatively, under an interactive model, a sex role perspective, gender influenced the nature of the role demands for men and women (Gore & Mangione, 1983). In contrast to the additive model, the social role/distress relationship differed for each sex. Women's poor mental health reflected the stresses of a disadvantaged social position - one that is held in low societal estimation and becomes stressful when combined with work outside the home (Gore & Mangione, 1983).

A sample of 1,111 cases included 464 males and 647 females. Two indicators of psychological distress were used, psychophysiolgic-symptoms measure and the CES-D scale for depression.

From this study, the strongest support for the social role framework was evidenced in the results for depression (Gore & Mangione, 1983). The presence of both employment and marriage made a positive impact on psychological health for both men and women. The only strong sex difference appeared among married individuals who have children and where the division of labor was traditional, that was, where wives were homemakers only (Gore & Mangione, 1983). Because work benefits all women, working wives did not differ in level of depression from comparable men and were significantly less depressed than their housewife counterparts (Gore & Mangione, 1983).

Walker, Ortiz-Valdes, & Newbrough (1989) addressed the high incidence of depression in mothers of children with chronic disorders. Baruch et al., (1987) proposed that for

some women, the balance of psychological demands and control is more favorable in the workplace than at home. In this case, employment may serve as a buffer against stress arising in family roles (Walker et al., 1989). Several studies indicated higher levels of emotional and physical well-being among women who occupy the three roles of wife, mother, and employee compared with women who occupy fewer roles (Pietromonaco et al., 1986; Thoits, 1983; Verbrugge, 1982). For women with multiple roles, frustration in any single role may be offset by the rewards of other roles that provided alternate sources of stimulation, self-esteem, and social status (Walker et al., 1989).

Mothers of children with chronic conditions, employment may provide both temporary relief from caretaking concerns and the opportunity for self expression and achievement in another realm (Walker et al., 1989). The resulting benefits to the mother's health would indirectly benefit the child.

Walker and colleagues (1989) investigated the effects of employment status and a child's chronic disorder on depression in mothers of children in several diagnostic groups. Subjects were 95 mothers of children in four diagnostic groups: diabetes, cystic fibrosis, mental retardation, and well. For each of the four diagnostic groups, mothers of children in three age groups were recruited; middle childhood (8-10 years of age), early adolescence (11-14 years of age) and late adolescence (15-19 years of age).

The CES-D Scale (Radloff, 1977) was used to measure maternal depression. The Child Behavior Checklist (Achenbach & Edelbrock, 1983) provided a standardized description of children's problem behavior as reported by their parents.

Contrary to expectations, the level of self-reported depression was not significantly higher for mothers of children in the chronic condition groups than for mothers of well children. Employed mothers, in comparison to nonemployed mothers, reported significantly lower levels of both child behavior problems and depression (Walker et al., 1989).

The analyses revealed no significant difference between mothers of girls versus mothers of boys with respect to problem behavior and depression (Walker et al., 1989). Controlling for the child's diagnostic condition, higher SES and maternal employment status outside the home were associated with less depression (Walker et al., 1989).

Maternal depression, child diagnostic condition, and family SES were analyzed and significant results were obtained for maternal depression, family SES, and mental retardation. Maternal depression was also associated with more reported behavior problems in their children (Walker et al., 1989).

The results are noteworthy because much of the literature of children with chronic disorders is based on maternal reports. If these investigations had controlled for maternal depression, it is likely that they would have

yielded lower rates of child maladjustment.

In contrast to the findings for mental retardation, chronic physical illness was not associated with more child behavior problems. Controlling for maternal depression and SES, neither mothers of children with diabetes or cystic fibrosis reported more child behavior problems than mothers of well children (Walker et al., 1989).

In summary, results of the study showed a positive relationship between employment status and depression in mothers with chronic disorders. This may be because employment provides respite from the demands of caretaking, access to another social support network, or an alternative arena for accomplishment (Walker et al., 1989). Controlling for SES and the type of child condition, lack of employment outside the home was associated with higher maternal depression. Maternal depression, in turn, was associated with higher levels of reported child behavior problems (Walker et al., 1989).

Mothers of chronically ill children have been known to display a variety of emotions. Philips (1991) examined the existence of a continuous sense of sadness or sorrow labeled as chronic sorrow that permeates the existence of mothers' everyday lives.

Three mother-child dyads were chosen in this qualitative study. The children's medical problems included a three year old involved in a near drowning, a one year old with multiple congenital abnormalities, and a seven year old with a psuedo-obstructions since birth.

Interviews and observations were recorded and analyzed to illustrate the presence or nonpresence of chronic sorrow. The data presented and analyzed suggest that chronic sorrow is not always present in mothers of chronically ill and disabled children (Philips, 1991). Examination of the cases suggests that for chronic sorrow to be present there must be hopelessness regarding progress, cure, or normalcy (Philips, 1991).

The review of literature demonstrated a need for an exploratory investigation into maternal coping and well-being in conjunction with a chronically ill child. A major question in this investigation will be how maternal perceptions of career and family and the stress of a chronically ill child influence coping behaviors and maternal well-being.

From the literature review the following variables were considered in this study of the well-being of mothers with a chronically ill child; maternal employment, maternal perceptions of stress, family, and career, and the coping responses of mothers with a chronically ill child. The effect of multiple roles upon maternal well-being will be addressed in this research project. These variables will be identified in a model and tested to explore whether the model was consistent with the data. If the model was consistent with the data, there is little doubt about the theory that has generated it (Pedhazur, 1982).

Insert Figure 1 about here

Statement of the Problem

A major issue arising from the previous review of literature is whether perceptions of career and family affect coping behaviors and the well-being of mothers with chronically ill children. Maternal well-being can include self-esteem, satisfaction with one's self, and risk of depression.

Self-esteem involves a variety of outcomes: role privileges, status enhancement, and enrichment of the personality. The identification of employment as a coping response in the amelioration of stress and depression is often accomplished by accumulating buffer roles of support and affection in a working environment and establishing status security.

There is a definite need to determine the effects of a child's chronic illness on maternal perceptions of career and family and the maternal well-being. Career and family perceptions will reveal a modern or traditional orientation towards home and family, the coping responses, and the social support that enhance maternal self esteem.

An exploration of the variables within a model is needed to gain insight into the effects of multiple roles upon maternal well-being. In addition to testing the model, the following hypotheses will be examined.

Hypotheses

1. Career and family attitudes will affect the coping behaviors and the well-being of mothers with a chronically ill child.

1a. Career and family attitudes measured by the modified Career and Family Questionnaire (CFQ), will affect the coping behaviors, measured by the Coping Health Inventory for Parents (CHIP), social support, measured by the Social Support Scale, self-esteem, measured by the Self-Esteem Questionnaire (SEQ-3,) and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale), of mothers with an asthmatic child.

2. Stress perception will affect the coping behaviors and the well-being of mothers with a chronically ill child.

2a. Perceived stress, measured by the Perceived Stress Scale (PSS), will affect the coping behaviors, measured by the Coping Health Inventory for Parents (CHIP), social support, measured by the Social Support Scale, self-esteem, measured by the Self-Esteem Questioner (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale) of mothers with an asthmatic child.

3. Socioeconomic status (education, occupation, gender, and marital status) will affect the coping behaviors and the well-being of mothers with a chronically ill child.

3a. Socioeconomic status, measured by the Hollingshead Four Factor Index of Social Status, will affect the coping

behaviors, measured by a Coping-Health Inventory for Parents (CHIP), social support, measured by the Social Support Scale, self-esteem, measured by the Self-Esteem Questionnaire (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale), of mothers with an asthmatic child.

4. The number of working hours will affect the coping behaviors and the well-being of mothers with a chronically ill child.

4a. The number of working hours per week will affect the coping behaviors, measured by the Coping Health Inventory for Parents (CHIP), social support, measured by the Social Support Scale, self-esteem, measured by the Self-Esteem Questionnaire (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale), of mothers with an asthmatic child.

5. Maternal age will affect the coping behaviors and the well-being of mothers with a chronically ill child.

5a. Maternal age will affect the coping behaviors, measured by the Coping Health Inventory for Parents (CHIP), social support, measured by the Social Support Scale, self-esteem, measured by the Self-Esteem Questionnaire (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Scale (CES-D Scale), of mothers with an asthmatic child.

6. The coping behaviors will affect the maternal well-being of mothers with a chronically ill child.

6a. The coping behaviors, measured by the Coping

Health Inventory for Parents (CHIP), will affect the self esteem, measured by the Self-Esteem Questionnaire (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale), of mothers with an asthmatic child.

7. Social support will affect the maternal well-being of mothers with a chronically ill child.

7a. Social support, measured by the Social Support Scale, will affect the self-esteem, measured by the Self-Esteem Questionnaire (SEQ-3), and depression, measured by the Center for Epidemiologic Studies Depression Scale (CES-D Scale), of mothers with an asthmatic child.

Methodology

Sample

A sample of 160 mothers of chronic asthmatic children, ages two through eight years, will be selected for the research project. Cohen (1977) suggested a sample of at least 84 (population r= .30 and desired power of .80 at .05; two-tailed) to assure the desired power or size of impact.

The mothers will be seeking health care for their children from the same pediatric allergist. The mothers will have at least one child and there will be no recent (at least six months) deaths, births, or illnesses of any other family member. The level of their child's impairment will be similar; all the children will have been diagnosed within the last six months and are currently on more than

two medications to stabilize their condition. At the time of data collection, the asthmatic child will not be in the hospital.

Instrumentation

Measure of Social Status

Hollingshead (1975) Index of Social Status takes into consideration the fact that social status is a multidimensional concept. The four factors used in this index are education, occupation, gender, and marital status.

Occupational titles used by the United States Bureau of the Census for the 1970 census and scored by the present index and the National Opinion Research Center were correlated. The Pearsonian Product Moment Coefficient between the Hollingshead Index and the NORC prestige scores is r= .927.

Measure of Modern and Traditional Perceptions

The original CFQ, Career and Family Questionnaire, includes questions about marriage and childbearing expectations, career expectations and attitudes, and orientation toward work and family roles (Baber & Monaghan, 1988):

1. The section on marriage and childbearing focuses upon whether the subjects planned to marry, the age at which they planned to marry, and the estimated probability of having children.

2. The section on career delves into questions about work expectations and job type.

3. To determine the relationship between career development and the timing of the first child, participants indicate whether they want to have a child first and then establish a career, establish a career first and then have a child, do both simultaneously, or whether they saw no relationship between the two.

4. A final section of the CFQ consists of 25 items tapping attitudes and perceptions toward work and family roles. These include degree of career commitment, perception of importance of a career, belief in traditional roles, and importance of parenting in relationship to a career. Participants were asked to indicate the extent of their agreement with each statement on a scale from 0-100%. The scale is presented in 10% increments. Factor analysis using an orthogonal rotation confirmed construct validity with six primary factors. The four factors central to the Baber and Monaghan (1988) study are child orientation, traditional orientation, career orientation, and contemporary orientation. This instrument has been modified for women with children.

Measure of Perceived Stress

The PSS, Perceived Stress Scale, is designed to measure the degree to which situations in one's life are perceived as stressful (Cohen, 1983). The 14 items were created to tap the degree to which respondents found their lives unpredictable, uncontrollable, and overwhelming.

The PSS was administered to three samples, 332 college students, 114 members of a psychology class,

and 64 participants in a smoking-cessation program. The scores ranged from 18-23 for the student samples and 25-28 in the smoking-cessation program.

Coefficient alpha reliability for the PSS was .84, .85, and .86 in each of the three samples. A test-retest correlation for 82 college students was .85, and .55 for the 64 subjects in the smoking study.

PSS received substantial support, Hotelling t-test scores ($p < .05$), as a better predictor of depression than various stressful life-event scores. In addition, increases in social anxiety, difficulty in making friends and contacts or integration into the community were associated with increased perceived stress (.48 $p < .001$).

Measure of Coping Efforts

CHIP, Coping Health Inventory for Parents (McCubbin, McCubbin, Nevin & Cauble, 1979), was developed to assess parents' perceptions of their response to the management of a child who is chronically ill. The development of CHIP was influenced by a hierarchical approach to the organization of behavior. In the application of this approach, two general levels of coping are defined: (a) coping behaviors as defined by each item on the inventory, and (b) coping patterns which are combinations of specific coping behaviors.

In a study (McCubbin, McCubbin, Patterson, Cauble, Wilson, & Warwick, 1983) of 185 parents of children with cystic fibrosis, 30 of the 80 items were rated by these parents as "not applicable". The investigation eliminated

an additional five items using the criterion of minimal or negligible variance. The remaining 45 items on the current version of CHIP were analyzed using SPSS principal factoring with an iteration method. Initial estimates of the commonalties were given by the shared multiple correlations between a given variable and the remaining variables in the matrix. The Scree test (Cattell, 1966) was applied to the resulting eigenvalues to determine the final number of factors. The results indicated three factors which were rotated to a final solution using the Varimax criterion (Kaiser, 1958). These three factors were designated as coping patterns and represented 71% of the variance of the original correlation matrix. Cronbach's alphas computed for the items on each coping pattern indicated reliabilities of 0.79, 0.79 and 0.71 respectively.

The conceptual organization of CHIP is divided into three coping patterns. The first coping pattern is composed of 19 behaviors that focus upon family integration, co-operation, and an optimistic definition of the situation. The second coping pattern consists of 18 items which involve the parents' efforts to develop relationships with others, engage in activities which enhance feelings of individual identity and self, and manage tensions and pressures. The third coping pattern contains eight behaviors regarding mastery of the medical regimen and communication with other parents of chronically ill children.

Measure of Social Support

A Social Support Scale developed by Caplan, Cobb, French, Harrison, & Pinneau (1975) will identify whether the mother receives support from the workplace, home, or friends and satisfaction with the support. This 12 item scale has reliabilities of .83 for supervisor support, .73 for other people in the workplace, and .81 for home support.

Measure of Self-Esteem and Self-Other Satisfaction

The SEQ-3, the Self-esteem Questionnaire, provides information on two variables: Self-esteem (SE), 12 questions, and Self-other satisfaction (SOS), 9 questions (Hoffmeister, 1988). Self-esteem is defined to mean the feeling that a person is capable, significant, successful, and worthy. Self-other satisfaction is defined to mean the level of satisfaction a person has with respect to his or her feelings of self-esteem.

Results from 800 air force cadets along with 360 other men and women indicated two clusters produced in the SEQ-3. The rotated oblique factor coefficients for all items in their respective cluster ranged from .51 to .70. The correlation between SE and SOS typically range from about .17 to .60, depending on the sample of respondents.

Cronbach's coefficient alpha ranges from .80 to .95 on SE, and from .85 to .96 on SOS. Scott's Homogeneity Ratio ranges from .25 to .39 on SE, and from .30 to .50 on SOS. A test-retest Pearson Correlation was .94 for the 21 questions.

Measure of Depression

The CES-D scale, the Center for Epidemiologic Studies Depression Scale, is a 20 item self-report scale designed to measure depressive symptomology in the general population (Radloff, 1977). The items in the scale are symptoms associated with depression which have been used in previously validated longer scales. These components included: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance.

Three groups or a total of 419 respondents, including both general and clinical populations, participated in validation and reliability studies. Both inner-item and item-scale correlations were higher in the patient sample (.01 -.73; .35 -.79,) than in the general population (.01 -.61; .29 -.75). Expectations were also confirmed by measures of internal consistency (coefficient alpha and the Spearman-Brown split-halves method). They were high in the general population (.85) and even higher in the patient sample (.90). In conclusion, the need help groups had high means and standard deviations, and scores of 16 and above.

Insert Table 1 about here

Procedure

A pediatric allergist will consent to select

160 mother's of children who have been diagnosed with chronic bronchial asthma within the last six months. The level of impairment, will be similar; all the children will be on more than two medications in order to stabilize their condition.

Stamped and sealed packets of instruments will be mailed out by the researcher. The return packets will be stamped and include instructions for the subjects to mail the packets to a post office box. A cover letter will be included in the packet explaining the nature of the study, confidentiality, right of refusal, and the pediatric allergist's involvement in the research.

Selection of Analytic Technique

Path Analysis

Path analysis has been selected as the exploratory analytic technique. This method of analysis was designed to shed light on the tenability of the theoretical formulations of maternal perceptions of career and family with a chronically ill child.

The assumptions that underlie the application of path analysis in this study are the following:

1. The relations among the variables in the model are linear, additive, and causal.

2. Each residual is not correlated with the variables that precede it in the model. Each endogenous variable is conceived of as linear combinations of exogenous and /or endogenous variables in the model and a residual. Exogenous variables are treated as "givens".

Moreover, when exogenous variables are correlated among themselves, these correlations are treated as "givens" and remain unanalyzed.

3. There is a one-way causal flow in the system. Reciprocal causation between variables is ruled out.

4. The variables are measured on an interval scale.

5. The variables are measured without error (Pedhazur, 1982).

The assumptions must be adhered to in order to avoid specification and measurement errors.

Multiple linear regression analysis will be utilized with each hypothesis. At each stage, a variable taken as dependent is regressed on the variables upon which it is assumed to depend. The calculated B's are the path coefficients for the paths leading from the particular set of antecedent variables to the dependent variable under consideration. In other words, a path coefficient indicates the direct effect of a variable hypothesized as a cause of a variable taken as an effect.

Information from the antecedent variables (employment hours, social status, maternal age, perceived stress, and career and family perceptions) will be utilized to explain the variability of the dependent variable, maternal well-being. Stated differently, the goal of this study is to determine how and to what extent, does the variability in the dependent variable, maternal well-being, depend upon the antecedent variables, employment hours, social status, maternal age, perceived stress, and career and family

perceptions.

Because of the complexity of the construct of well-being, it has been broken down into self-esteem, self-other satisfaction, and depression. In addition, mediating variables of coping behaviors and social support intercede between the antecedent variables and the dependent variable.

One of the advantages of path analysis is that it also affords the decomposition of the correlations among the variables, thereby enhancing the interpretation of relations as well as the pattern of the effects of one variable on another. In sum, a correlation coefficient may be decomposed into the following components: (a) Direct Effect (DE); (b) Indirect Effects (IE); (c) Unanalyzed (U) due to correlated causes; and (d) Spurious (S) due to common causes. The sum of the DI and IE is the total effect, or the effect coefficient.

A full model will be generated and application of the decomposition strategy will delete non-significant paths. A reduced model will be tested for goodness of fit in an attempt to explore consistencies of the model and data. The theoretical notions of role accumulation, symbolic interaction, and stress and coping theory generated the path model; not the other way around.

In conclusion, the reduced model presented in this study will be an exploratory attempt to gather needed information concerning how the complex intercorrelations among perceptions of stress, career and family attitudes,

social support, and other coping resources affect maternal well-being in conjunction with a chronically ill child.

Results

Characteristics of the Respondents

One hundred mothers of severe asthmatic children, ages two through eight years, responded to this research project. Because several mothers had more than one asthmatic child in this age group, a total of 127 children with severe asthma were represented in this project. The children had been diagnosed for at least six months, the majority of children had the same pediatric allergist, all children were maintained on two or more medications, and none of the children were hospitalized during data collection.

The average age of the mothers was 28 years old. Eighteen of the mothers were under twenty years of age. The mothers were predominantly Caucasian, married, and over half of the mothers had completed high school. Thirty-nine of the mothers did not work outside the home but forty-four mothers worked forty hours a week and eleven mothers worked part-time. Sixty percent of the mothers presented modern perceptions of career and family attitudes.

Thirty-six of the children were twenty-four months old, fourteen children were thirty-six months old, and eighteen were forty-eight months old. Fifty-eight children were males and sixty-one children were females.

Insert Table 2 about here

Methodology

Factor Analysis

Following a review of theoretical implications and descriptive information from the data, three factor analyses were done. A principle axis factoring extraction was used with a varimax rotation. A principle axis factoring extraction was sought because the variance is maximized across all factors in the matrix which reduces the tendency of one general factor (Gorsuch, 1983). Because the study was exploratory, interest remained in learning about the factors rather than the variables.

The first factor analysis extracted three factors called the structural antecedents. Maternal age, number of work hours outside the home, perceived stress, and the Hollingshead formed the first factor named maternal CONTEXT. The traditional perceptions of career and family formed the second factor named TRAD. The modern perceptions of career and family formed the third factor named MOD.

The second factor analysis extracted two factors called the mediating variables. Satisfaction with the people involved in supporting the mother and the efforts at maintaining social support, psychological stability, and identity development were named SUPPORT. The efforts of

maintaining family integration, cooperation, an optimistic definition of the situation, and communication with the health team formulated the second factor named RESOURCE.

The third factor analysis extracted one factor as the outcome variable. Depression, self-esteem, and self-other satisfaction composed the factor WELLBEING.

Insert Figure 2 about here

Path Analysis

Several multiple regression analyses were employed to determine the best explanation of SUPPORT, RESOURCE, and maternal WELLBEING. When variables are expressed in standardized form, the standardized regression coefficients (B's) are equal to the effect of each cause or the path coefficient. Path coefficients (p's) indicate a direct effect of a variable hypothesized as a cause of a variable taken as a effect (Pedhazur, 1982).

Several steps were utilized to the test the model.

1. Pedhazur (1982) suggested, following the calculation of path coefficents for the full model, to delete the path coefficients that do not meet the criteria of statistical significance (B's < .05) and meaningfulness. The researcher opted to rely upon theoretical meaningfulness with less emphasis upon statistical significance.
2. When certain paths are deleted, the model becomes overidentified. Then the overidentified model can be tested for significance. Rejection of the null hypothesis

indicates that the model does not fit the data (Pedhazur, 1982).

The paths from CONTEXT to WELLBEING and CONTEXT to RESOURCE were deleted because of the theoretical guidance of stress and coping theory (Folkman et al., 1986; McCubbin & Figley , 1983). Coping is defined as the mother's constantly changing cognitive and behavioral efforts to manage specific stressors that are perceived as taxing or exceeding the mother's resources (Folkman et al., 1986). The initial perception of stress demanded the selection of coping responses that generated self development, support, and satisfaction (Seiber, 1974; Marks, 1977; Thoit, 1983). All the paths from TRAD were deleted because of the neutral and insignificant effect upon the outcome variable, maternal WELLBEING. The path from MOD to RESOURCE was deleted because of theoretical support regarding the privileges of multiple roles. Establishment of the buffer roles of social support, satisfaction with the support, and development of the self must be evident prior before additional coping resources can be utilized (Seiber, 1974; Marks, 1977; McCubbin & Figley, 1983; Johnson, 1987).

Insert Figure 3 about here

Insert Figure 4 about here

3. In order to test an overidentified model it is necessary first to calculate R2m. This is the ratio of explained variance to the variance to be explained. The M is calculated in the same manner as R2M, except the R2's are based on the model with some of the paths deleted. The smaller M is in relation to the R2M, the poorer the fit of the overidentified model (Pedhazur, 1982). In this instance, see the appendix.

4. As with other tests of significance, the x2 is affected by the sample size. It is therefore suggested that attention be paid to Q instead of the W (Pedhazur, 1982). The Q is the measure of goodness of fit which is not a function of sample size (Pedhazur,1982). Q may vary from zero to one. The closer Q is to one, the better the fit of the model to the data (Pedhazur, 1982).

Effect Coefficients

The method used to calculate the effect coefficients follows closely the approach taken by Fox (1980). Exogenous variables will be designated by X's, whereas endogenous variables will be designated by Y's. Matrix algebra and the use of B's were used as indices of effects. The sum of the Direct Effect and Indirect Effect is the total effect, or the effect coefficient.

When it is desired to study differential effects of several variables on an endogenous variable, it is the

effect coefficients that should be compared (Pedhazur, 1982). It may be concluded that CONTEXT (maternal age, social status, numbers of work hours outside the home, and stress perception) had the largest effect upon SUPPORT. Moreover, SUPPORT had the greatest effect upon both RESOURCE, the coping efforts of family integration and communication with the health team, and maternal WELLBEING. SUPPORT represented the strong coping effort of self development, multiple roles, and the satisfaction with this response. MODERN perceptions both directly and indirectly affected maternal WELLBEING while TRADITIONAL perceptions remained neutral in this analysis.

Insert Table 3 about here

Summary of the Tests of the Hypotheses

Hypothesis 1: Career and Family attitudes will affect the coping behaviors and the well-being of mothers with a chronically ill child. Traditional perceptions of family and career had no impact on SUPPORT, RESOURCE, or WELLBEING. Traditional attitudes had a correlation of -.08 with SUPPORT, -.01 with RESOURCE, and -.14 with WELL-BEING. The paths from TRAD to SUPPORT, RESOURCE, and WELLBEING were deleted because this factor had no impact either upon the mediating or outcome variables in this study.

Modern perceptions of family and career had a significant correlation of .28 (p=.01) with SUPPORT. Modern perceptions had a .10 correlation with RESOURCE but

a significant correlation of .36 (p=.01) with WELLBEING. The path from MOD to RESOURCE was deleted with strong theoretical support. Modern perceptions had a direct effect of .2335 with WELLBEING and an indirect effect of .1535 with WELLBEING. The total effect size of modern perceptions upon WELLBEING is .3870.

Hypotheses 2 through 5: A factor analysis reduced stress perception, social status, number of working hours outside the home, and maternal age into the factor named CONTEXT. CONTEXT was a powerful variable with a significant correlation of .79 (p=.01) with SUPPORT. CONTEXT had a significant correlation of .65 (p=.01) with RESOURCE but because of an absence of theoretical support, this path was deleted. CONTEXT had a significant correlation of .56 (p=.01) with WELLBEING but because of a lack of theoretical support for this path, it was deleted. CONTEXT had a direct effect upon SUPPORT with a effect coefficient of .7690 and a indirect effect of .5275 upon RESOURCE. CONTEXT also had an indirect effect upon WELLBEING with an effect coefficient of .4573.

Hypotheses 6 through 7: Coping behaviors will affect the well-being of a mother with a chronically ill child. Social support will affect the well-being of a mother with a chronically ill child. Following a factor analysis, the actual efforts at maintaining support, multiple roles, and satisfaction with the support was named SUPPORT. SUPPORT had a significant correlation of .67 (p=.01) with WELLBEING and a direct effect upon WELLBEING with an effect

coefficient of .3297. SUPPORT also had an indirect effect upon WELLBEING with an effect coefficient of .2650. The total effect size of SUPPORT on WELLBEING is .5947. SUPPORT had a direct effect of .6859 upon RESOURCE with a significant correlation of .69 (p=.01).

Following a factor analysis, the efforts aimed at family integration, an optimistic definition of the situation, and communication with the health team was named RESOURCE. RESOURCE had a significant correlation of .64 (p=.01) with WELLBEING. RESOURCE had a direct effect upon WELLBEING with an effect size of .3863.

Overall, the results indicate that modern perceptions have a significant effect upon maternal well-being. The modern perception of self development through multiple roles is linked with the buffer effects of social support which has the expected positive effects upon maternal well-being (Seiber, 1974; Marks, 1977; Verbrugge, 1982; Thoits, 1983; Pugliesi, 1988).

Discussion

This exploratory study examined the effect of a chronically-ill child upon maternal well-being. A full model was generated utilizing various predictors of maternal well-being. These predictors were (a) CONTEXT or employment hours, maternal age, social status, and stress perception, (b) TRAD or traditional perceptions of career and family, and (c) MOD or modern perceptions of career and family. Mediating variables of SUPPORT and RESOURCE were also utilized within the full model as predictors of

maternal well-being. Following the statistical analysis, the full model was reduced within the theoretical boundaries of research focusing upon role accumulation and multiple roles (Seiber, 1974; Marks, 1977; Verbrugge, 1982; Thoit, 1983; Pietromonaco et al., 1986; Pugliesi, 1988).

Historically, research focused upon maternal employment and role strain, making the assumption that role strain and distress accompanied a working mother (Guelzow et al., 1991; Keith & Schafer, 1980; Repetti, 1987). Consequently, a void has occurred in the research regarding the effects of modern perceptions or development of the self through multiple roles upon mothers with chronically-ill children (Shonkoff et al., 1992; Brust et al., 1992; Morey & Jones, 1993; Williams et al., 1993).

Although previous authors repeatedly stated that mothers were most likely identified as primary caregivers and mothers usually perceived the personal strain of parenting a child with special needs more strongly than other family members, no exploration of alternatives to the restrictive setting of caring for a sick child were given. Shonkoff et al., (1992) revealed in his research that mothers reported greater stress with respect to their own health, role restrictions, and relations with their spouse. Sabbeth (1984) strongly documented that mothers of chronically-ill children who had fewer social resources also reported greater caregiving burdens. Florian & Krulik (1991) stated that mothers of sick children have higher loneliness scores than mothers of healthy children.

McCubbin & Patterson (1983) commented on the impact of chronic illness on the mother's mental health with high levels of worry, depression, guilt, and distress being among the most common features. Perhaps the previous research has continued to foster a restrictive worldview in the treatment of women and chronically-ill children.

Several social scientists (Seiber, 1974; Marks, 1977) have pointed out that a complex social life space, with involvement in multiple roles is psychologically rewarding. The opposite, a narrow social life space focused on a single area of life such as a sick child, is in fact detrimental to physical and mental health in view of the wealth of opportunities in the modern world (Lopata, 1993). Without alternatives of role accumulation, status security, self enhancement, and feelings of competence, a mother's intellect is confined, her morals crushed, her health ruined, her weaknesses encouraged, and her strength punished (Verbrugge, 1982; Thoit, 1983; Pietromonaco, et al. 1986; Pugliesi, 1988).

The present research addressed the effects of modern and traditional perceptions of family and career upon maternal well-being. Modern perceptions of career and family provided meaning and behavioral guidance to mothers with chronically-ill children in the present study. Multiple roles promoted both psychological well-being and organized, functional, behavior. This study supported Pelletier et al. (1994) and Gore and Mangione's (1983) finding about the buffer effects of employment upon social

support and depression. These mothers were able to compensate for the stressors of a chronically-ill child by falling back on other relationships in the workplace. These relationships afforded compensatory affection, moral support, emergency resources, and perhaps even assistance for a renewal of effort in the parenting role.

This body of research supported the findings that multiple roles, especially employment for women, enhance social support and esteem which positively affect well-being (Pugliesi, 1988; Schnittger & Bird, 1990). The coping strategy of SUPPORT, which includes self development, appeared to lessen the threatening life circumstances of a chronically-ill child (Sabbeth, 1984; Florian & Krulik, 1991; Shonkoff et al., 1992; Pelletier et al., 1994).

This project supported research suggesting that development of strong social networks and the satisfaction with these networks are critical before the mother can maintain the RESOURCE of family integration, an optimistic definition of the situation, and communication with the health team (McCubbin & McCubbin, 1983). The result of these coping efforts have a significant effect upon well-being.

The rewards of role accumulation were evident in this research project. Modern perceptions of career and family promoted maternal gratification and esteem when multiple roles are assured. An important contribution to this analysis of the advantages of a complex social life space came from the work of Baruch et al., (1987). These

researchers reported that women enjoy the feelings of mastery and independence from multiple involvements. Women with multiple roles have a strong sense of selfhood and selfworth, knowing they are successful in their roles and in coordinating there own lives (Baruch et al., 1987). Perhaps the mothers in the present research with a modern lifestyle were allowed more freedom of action or authority in the restricted presence of a chronically-ill child.

Conclusion

The goals of this research were to explore modern and traditional perceptions of career and family and to evaluate how these perceptions impact maternal well-being. This project suggested that modern perceptions of career and family or acquiring multiple roles significantly impacted maternal well-being by enhancing self-esteem and minimizing the risk of depression. In the present study, traditional roles did not have an impact or effect upon the well-being of mothers with chronically-ill children.

Major questions for future research became evident throughout this project because these mothers had encountered life threatening situations with their asthmatic child. Were these mothers affected by post-traumatic stress disorder? What impact does post-traumatic stress disorder have on the utilization of SUPPORT and RESOURCE with the resulting impact upon maternal well-being?

Teaching modules need to be developed in health-care settings to assure that mothers from all cultures

remain connected in a network of friends, kin, church, and voluntary associations. The framework of these models needs to move away from metaphors of spending, draining, leaking out, or dribbling away of energy. Such a model inevitably sees modern life as overwhelming in its demands on people. Mothers of chronically-ill children need to be encouraged to explore family and community resources with the view that complex social involvement is enriching and revitalizing. Conflict is not inevitably debilitating but allows people to choose and negotiate, to be unique in a unique lifestyle (Lopata, 1993).

In conclusion, this research project supported the recent theories of Seiber (1974) and Marks (1977). Performing several roles increased these mothers' privileges and resources in their social environment, assisted in establishing social and economic status, acted as a buffer for problems or failures in any single life domain, and enhanced feelings of well-being.

Table 1. Variable List

	variable	measure	n/items	reliabil/orig
1.	Work Hours	Number of Hours per Week		
2.	Maternal Age			
3.	Social Status	Hollingshead 4 Factor Index	4	Pearson .927
4.	Perceived Stress	Stress Scale	25	Cronbach's .90
5.	Career and Family Attitudes	Questionaire	14	Cronbach's .84
6.	Social Support	Support Scale	12	Cronbach's Supervisor .83 Others .73 Home .81
7.	Coping Behaviors	CHIP	45	Cronbach's I .79 Family II .79 Support III .71 Medical
8.	Self-Esteem	SEQ-3	21	Cronbach's SE .80 - .95 SOS. .85 - .96
9.	Depression	CES-D	20	Cronbach's .85

Table 2. Demographic Characteristics of the Sample Characteristics[92]

Age:	Age	n	Age	n	Age	n
	16	2	25	4	35	4
	17	7	26	9	36	4
	18	7	27	3	37	3
	19	2	28	1	38	2
	20	1	29	1	39	4
	21	7	30	5	40	2
	23	3	31	7	41	1
	24	1	33	3	42	3
	Mean: 27.670		Standard Deviation: 7.632			

Race:		n
	Caucasian	66
	Black	21
	Hispanic	8
	American Indian	5

Education:		n
	10th or 11th Grade	29
	High School	23
	Partial College	18
	University Graduate	30

Marital Status:		n
	Married	74
	Co-Habitating	6
	Single	20

Religion:		n
	None	21
	Protestant	53
	Catholic	19
	Latter Day	2
	Other	5

Hollingshead (8-66)	Score	n	Score	n	Score	n
	8	14	35	1	49	1
	22	1	37	4	50	1
	24	2	38	3	53	15
	27	3	42	6	58	10
	29	2	44	1	61	3
	30	3	47	1	63	6
	32	11	48	1	66	10
	34	1				
	Mean: 41.80		Standard Deviation: 18.553			

Table 2. (Continued)

Number Of Children:	n
1	33
2	49
3	15
4	2
8	1

Age Of Children (2 - 8 y.o.):	n
24 months	36
36 months	14
48 months	18
60 months	12
72 months	19
84 months	9
96 months	19

Gender Of Children:	n
Male	58
Female	61

Delivery Age of Mother, 1st Child:

Age	n	Age	n	Age	n
14	1	21	9	27	4
15	8	22	10	28	5
16	10	23	4	29	1
17	5	24	2	30	2
18	8	25	4	32	1
19	6	26	5	34	2
20	13				

Grandmother's Age, 1st Child:

Age	n	Age	n	Age	n
16	4	22	15	27	1
18	16	23	2	28	3
19	4	24	8	29	2
20	14	25	4	30	1
21	12	26	11	32	1

Grandfather's Age, 1st Child:

Age	n	Age	n	Age	n
16	1	23	9	29	2
18	5	24	7	30	11
19	7	25	4	31	4
20	8	26	5	34	1
21	9	27	3	35	3
22	3	28	8	37	1

Table 2. (Continued)

Did Grandmother work?	n
Yes	58
No	42

Will You Accomplish This?		
High School	99 =	100%
Undergraduate	46 =	100%
	15 =	50%
M.A. Degree	46 =	0%
	1 =	100%
	15 =	90%
Ph.D.	1 =	100%
	88 =	0%

Would You Have More Children?	n
Yes	93
No	7

Rank, Most (1) to Least (8):

Money:	Rank	n
	1 =	57
	8 =	18

Self-Fulfillment:	Rank	n
	1 =	19
	8 =	5

Confidence/Self-Esteem:	Rank	n
	1 =	8
	2 =	25
	3 =	34
	4 =	14

Challenge:	Rank	n
	1 =	6
	3 =	27
	4 =	33
	8 =	10

Occupy Time:	Rank	n
	1 =	1
	7 =	17
	8 =	57

Table 2. (Continued)

Commitment:

Rank	n
1 =	3
4 =	18
5 =	15
6 =	19
7 =	36
8 =	2

Skills:

Rank	n
1 =	3
4 =	14
5 =	27
6 =	38
8 =	3

Meet People:

Rank	n
1 =	11
5 =	23
6 =	15
7 =	15
8 =	3

A Change in Plans Following Birth of Child?

	n
Yes	92
No	8

When Did You Anticipate 1st Child?

	n
After College	7
Establish Career First	14
Career and Family Together	12
No Relationship	67

Number of Work Hours Per Week Outside Home:

Hours	n	Hours	n
0	39	32	1
4	1	37	1
20	11	40	44
24	1	42	1
30	1		

Mean: 21.490

Envision Life Without a Sick Child:

Yes = 80%

Table 2. (Continued)

Rank Importance:		
	Me/Personal:	n
		1 = 31
		2 = 23
		3 = 29
		4 = 17
	Marriage:	n
		1 = 14
		2 = 38
		3 = 15
		4 = 33
	Children:	n
		1 = 54
		2 = 36
		3 = 9
		4 = 1
	Career:	n
		1 = 1
		2 = 3
		3 = 47
		4 = 49
Modern or Traditional Perceptions:		
	Modern	60%
	Traditional	40%

Table 3. Effect Coefficients

From Matrix Algebra

	Total Effect Size (TE)	Direct Effect (DE)	Indirect Effect (IE)
	Support	Resource	Well-Being
Context	.7690 (DE)	.5275 (IE)	.4573 (IE)
TRAD	0	0	0
MOD	.2581 (DE)	.1770 (IE)	.1535 (IE) .3870 (TE) .2335 (DE)
Support	0	.6859 (DE)	.2650 (IE) .5947 (TE) .3297 (DE)
Resource	0	0	.3863 (DE)

Figure 1. Preliminary Model

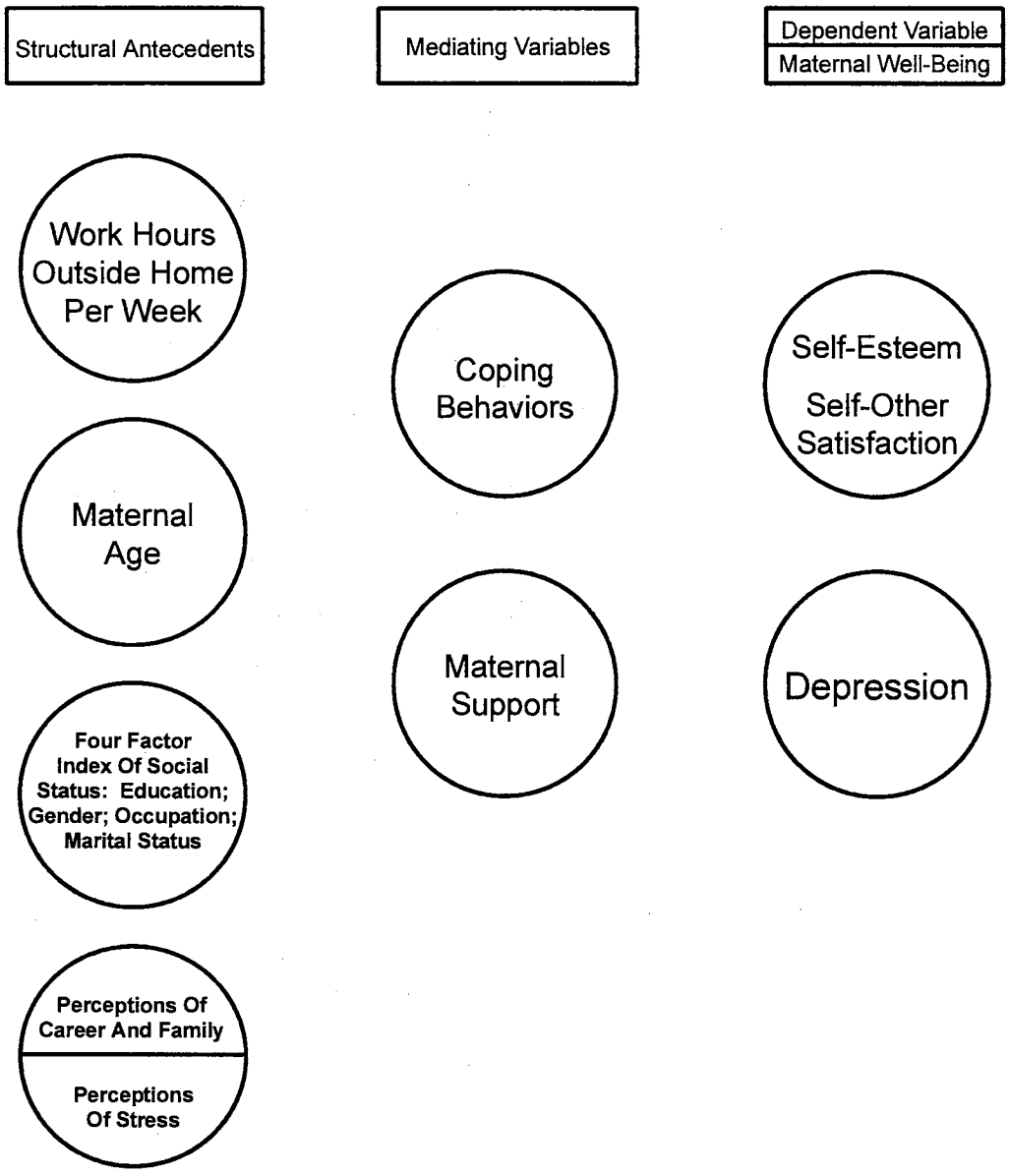


Figure 2. Factor Analysis

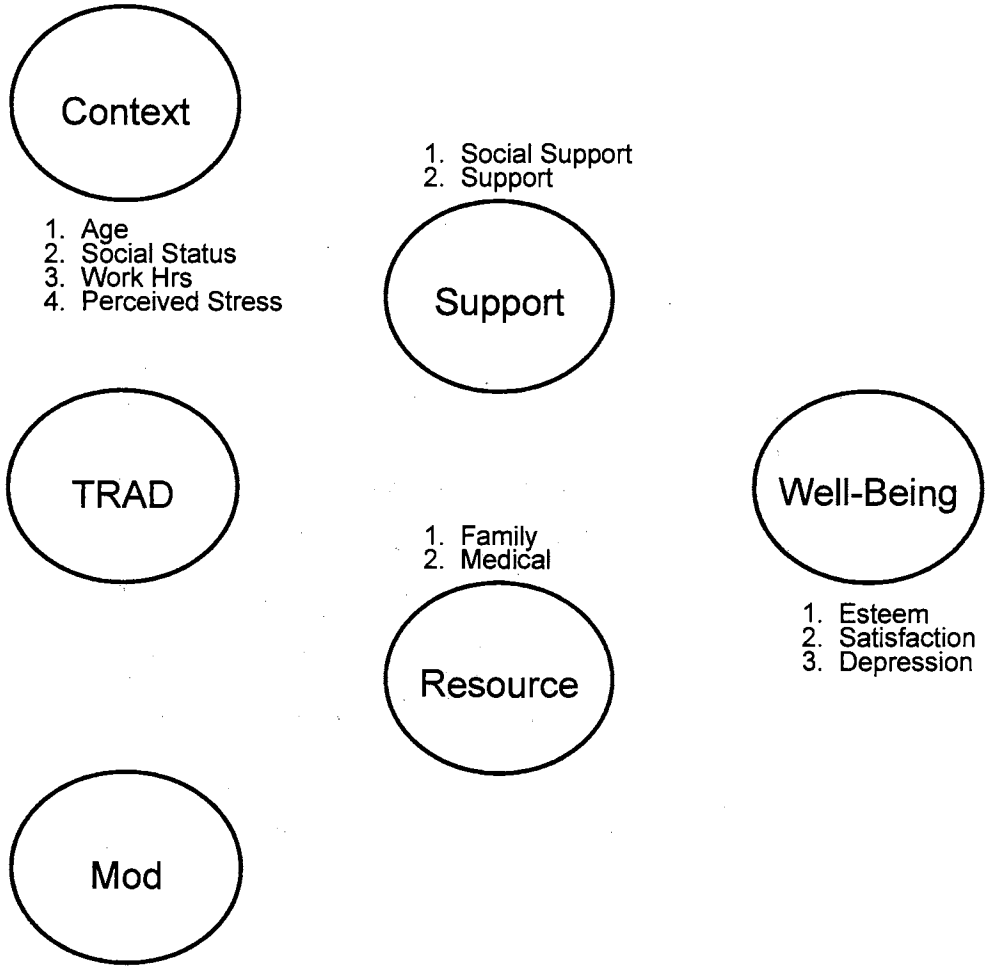


Figure 3. Full Recursive Model

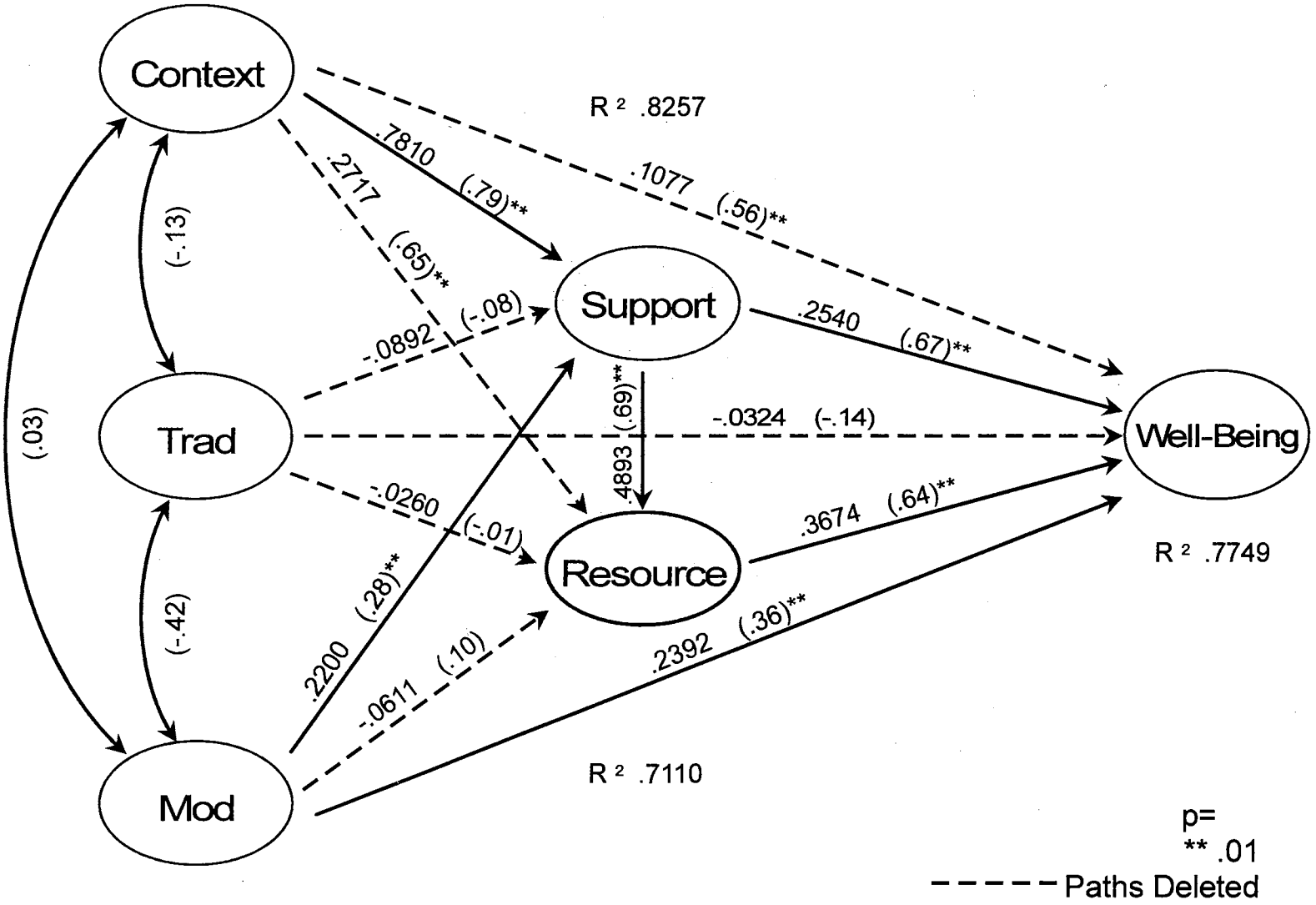
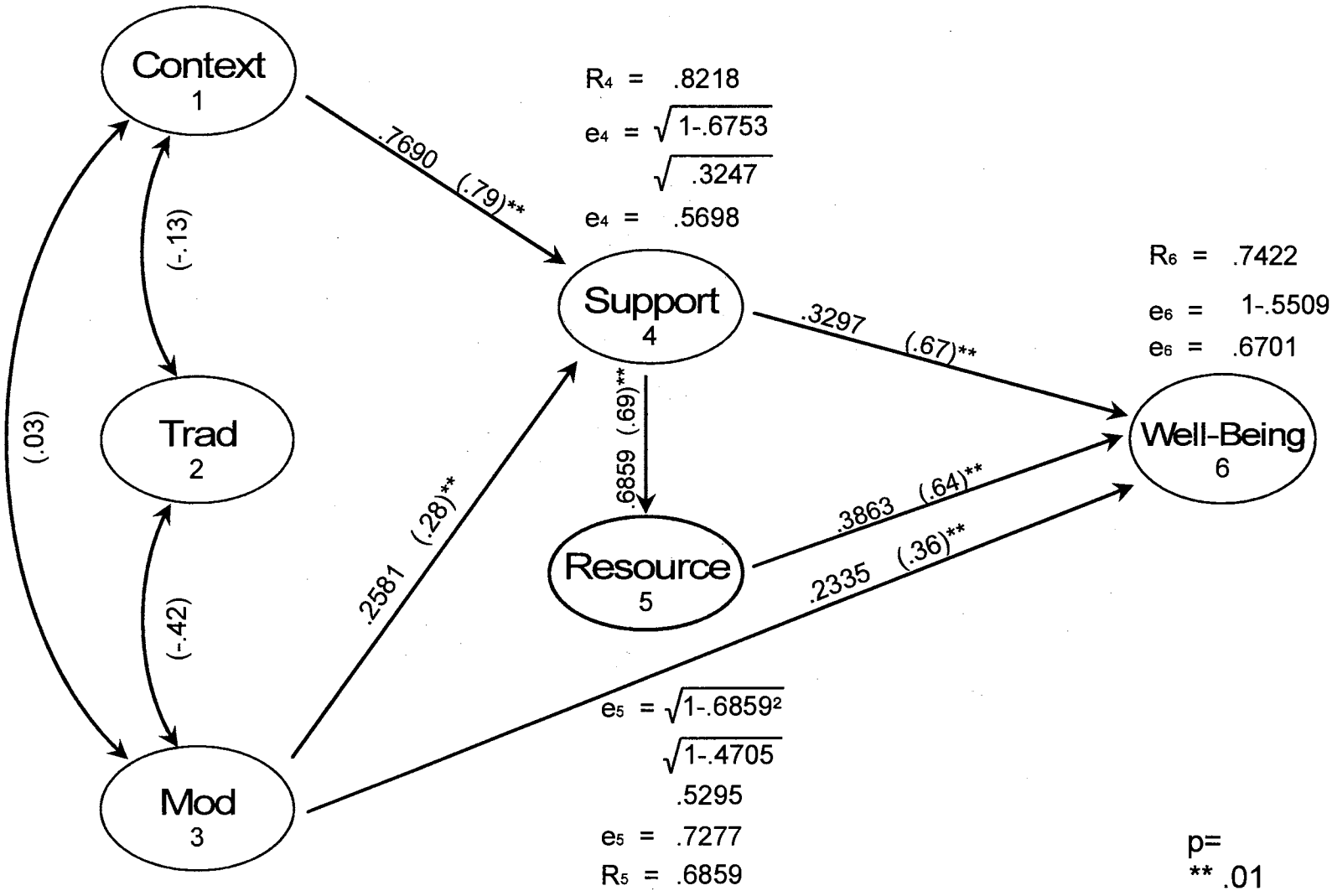


Figure 4. Reduced Model



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Appendix A

Mathematical Computations

$$R2m = 1-(1-R2s)\ (1-R2r)\ (1-R2w)$$

$$1-(1-.6817)(1-.5056)(1-.5549)$$

$$.3183 \quad .4944 \quad .4451 = 1-.0700=.9300$$

$$M = 1-(1-R2s)\ (1-R2r)\ (1-R2w)$$

$$1-(1-.6753)(1-.4705)(1-.5509)$$

$$.3247 \quad .5295 \quad .4491 = 1-.0772 =.9228$$

$$Q = \frac{1-R2m}{1-m} = \frac{.0700}{.0772} = .9067 = .91$$

$$W = -(N-d)\ LOGe\ Q$$

$$-(100-6)\ LOGe\ .9067$$

$$-(94) \quad .-0979 = 9.2067$$

Appendix B

Instruments Used in the Study

Career and Family Attitudes

Race/Ethnicity.....
Age.....
grade completed.....
Occupation .....
.....

Marital Status:
.....married Last
.....engaged
.....co-habitating
.....single

Religion: 1)None 2)Protestant 3)Catholic 4)Jewish 5) Latter Day 6)Moslim 7)Other

Spouse's last grade completed.....

Spouse's Occupation.....

Children: Age Sex Race Asthma

(Yes/No)

How old were you when you had your first child?.....

How old was your mother when she had her first

child?.....

How old was your father?.....

Did your mother work at any time between your birth and

graduation from high school? YES NO

On a scale of 0 to 100, estimate the probability that you will do each of the following.(0 means you are certain you won't and 100 means you are certain you will. You may use any number between).

Complete high school.....

Complete undergraduate degree.....

Complete an M.A. degree.....

Complete a Ph.D. degree.....

Have children.....

Rank order the following from 1 **(most important)** to 8 **(least important)** to indicate reasons why you would want to work.

..... earning money	.....occupy your time
.....self-fulfillment	.....commitment
.....confidence/self-esteem	.....learning skills
.....a challenge	.....meeting new people

Have you ever changed your plans regarding career choice because it would interfere with the responsibilities of being a parent? YES NO When?

When did you anticipate having your first child?

1) right after college, before I establish a career.
2) establish career, then have a child.
3) have children, establish career simultaneously.
4) no relationship between career and timing of child.

How many hours/week do you work outside the home? .....

In percentage terms, how much do you **agree** with the following statements. 0% to 100% (circle the percentage you choose)

1. I am committed to having a life long career.

0 10 20 30 40 50 60 70 80 90 100

2. I consider my spouse's career and my career equally important.

0 10 20 30 40 50 60 70 80 90 100

3. I consider the husband's career more important than the wife's after the birth of the first child.

0 10 20 30 40 50 60 70 80 90 100

4. I looked for a spouse who considers his/ her career and my career equally important.

0 10 20 30 40 50 60 70 80 90 100

5. I want it all, to be a parent, spouse, and career person, and I am determined to manage it all and do it well.

0 10 20 30 40 50 60 70 80 90 100

6. My mother was very successful as a parent.

0 10 20 30 40 50 60 70 80 90 100

7. Having children was an enjoyable experience for my mother.
0 10 20 30 40 50 60 70 80 90 100

8. My father was very successful as a parent.
0 10 20 30 40 50 60 70 80 90 100

9. Having children was an enjoyable experience for my father.
0 10 20 30 40 50 60 70 80 90 100

10. I always thought that I would have children: I never thought that I would not.
0 10 20 30 40 50 60 70 80 90 100

11. Having children is a normal part of being a women/ man.
0 10 20 30 40 50 60 70 80 90 100

12. I looked for a spouse who considers having children an important part of life.
0 10 20 30 40 50 60 70 80 90 100

13. Children will get on any one's nerves if she/he has to be with them all day.
0 10 20 30 40 50 60 70 80 90 100

14. I think it's perfectly natural for a person not to have children.
0 10 20 30 40 50 60 70 80 90 100

15. Parental authority and responsibility for discipline of the children should be equally divided between husband and wife.
0 10 20 30 40 50 60 70 80 90 100

16. I personally could not be psychologically fulfilled if I did not have children.
0 10 20 30 40 50 60 70 80 90 100

17. Although both spouses should help around the house, women should retain primary responsibility for domestic chores.
0 10 20 30 40 50 60 70 80 90 100

18. Having a challenging job or career is as important as being a wife or mother.
0 10 20 30 40 50 60 70 80 90 100

19. A women's most important role is in the home.
0 10 20 30 40 50 60 70 80 90 100

20. It is difficult for a women to have a career and still keep her femininity.
0 10 20 30 40 50 60 70 80 90 100

21. A husband and wife should spend equal time in raising the children.

0 10 20 30 40 50 60 70 80 90 100

22. With my child(ren), I have to adapt my daily schedule to the responsibilities of being a parent.

0 10 20 30 40 50 60 70 80 90 100

23. My child(ren) has to adapt to my daily schedule.

0 10 20 30 40 50 60 70 80 90 100

24. My lifestyle has become restricted with my child(ren) (ex: volunteer, career, church member, travel, leisure time, time with spouse or others).

0 10 20 30 40 50 60 70 80 90 100

25. I often envision what life would be like if I did not have a sick child(ren).

0 10 20 30 40 50 60 70 80 90 100

Rank the following in order of their expected importance in your life.

.....me-personal	.....children
.....marriage	.....career

Adapted from Baber and Monaghan (1988)

PERCEIVED STRESS SCALE

Never	Almost Never	Some-times	Fairly often	Very often
0	1	2	3	4

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

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

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

4. In the last month, how often have you dealt successfully with irritating life hassles? .....

5. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?.....

6. In the last month, how often have you felt confident about your ability to handle your personel problems?.....

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

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

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

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

11. In the last month, how often have you been angered because of things that happened outside of your control?.....

12. In the last month, how often have you found yourself thinking about things that you have to accomplish?.....

13. In the last month, how often have you been able to control the way you spend your time?.....

14. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Adapted from Cohen, Kamarck, and Mermelstein (1983)

SOCIAL SUPPORT

Very Much	Some-what	A Little	Not At All	Don't Have Any Such Person
4	3	2	1	0

How much does each of these people go out of their way to do things to make your life easier for you?

A. Your immediate supervisor (boss).....

B. Other people at work.....

C. Your husband, friends and relatives.....

D. Health care professionals.....

How easy is it to talk with each of the following people?

A. Your immediate supervisor.....

B. Other people at work.....

C. Your husband, friends and relatives.....

D. Health care professionals.....

How much can each of these people be relied on when things get tough?

A. Your immediate supervisor.....

B. Other people at work.....

C. Your husband, friends and relatives.....

D. Health care professionals.....

How much is each of the following people willing to listen to your personal problems?

A. Your immediate supervisor.....

B. Other people at work.....

C. Your husband, friends and relatives.....

D. Health care professionals.....

Adapted from Caplan, Cobb, French, Harrison, and Pinneau (1975)

COPING BEHAVIORS	Extremely Helpful	Moderately Helpful	Minimally Helpful	Not Helpful	I do not cope this way because: Chose Not To	I do not cope this way because: Not Possible	For Computer Use Only F	S	M
1 Trying to maintain family stability	3	2	1	0	☐	☐	○		☐
2 Engaging in relationships and friendships which help me to feel important and appreciated	3	2	1	0	☐	☐ 12	☐	○	
3 Trusting my spouse (or former spouse) to help support me and my child(ren)	3	2	1	0	☐	☐	○	☐	
4 Sleeping	3	2	1	0	☐	☐		○	☐
5 Talking with the medical staff (nurses, social worker, etc.) when we visit the medical center	3	2	1	0	☐	☐		☐	○
6 Believing that my child(ren) will get better*	3	2	1	0	☐	☐	○	☐	
7 Working, outside employment	3	2	1	0	☐	☐	☐	○	
8 Showing that I am strong	3	2	1	0	☐	☐	○		☐
9 Purchasing gifts for myself and/or other family members	3	2	1	0	☐	☐	☐	○	
10 Talking with other individuals/parents in my same situation	3	2	1	0	☐	☐		☐	○
11 Taking good care of all the medical equipment at home	3	2	1	0	☐	☐	○		☐
12 Eating	3	2	1	0	☐	☐		○	☐
13 Getting other members of the family to help with chores and tasks at home	3	2	1	0	☐	☐	○	☐	
14 Getting away by myself	3	2	1	0	☐	☐	☐	○	
15 Talking with the Doctor about my concerns about my child(ren) with the medical condition*	3	2	1	0	☐	☐	☐		○
16 Believing that the medical center/hospital has my family's best interest in mind	3	2	1	0	☐	☐	○	☐	
17 Building close relationships with people	3	2	1	0	☐	☐	☐	○	
18 Believing in God	3	2	1	0	☐	☐	○		☐
19 Develop myself as a person	3	2	1	0	☐	☐	☐	○	
20 Talking with other parents in the same type of situation and learning about their experiences	3	2	1	0	☐	☐		☐	○
21 Doing things together as a family (involving all members of the family)	3	2	1	0	☐	☐	○	☐	
22 Investing time and energy in my job	3	2	1	0	☐	☐		○	☐
23 Believing that my child is getting the best medical care possible*	3	2	1	0	☐	☐	○		☐
24 Entertaining friends in our home	3	2	1	0	☐	☐ 34	☐	○	
25 Reading about how other persons in my situation handle things	3	2	1	0	☐	☐ 35		☐	○
26 Doing things with family relatives	3	2	1	0	☐	☐	○	☐	
27 Becoming more self reliant and independent	3	2	1	0	☐	☐		○	☐
28 Telling myself that I have many things I should be thankful for	3	2	1	0	☐	☐	○	☐	
29 Concentrating on hobbies (art, music, jogging, etc.)	3	2	1	0	☐	☐	☐	○	
30 Explaining our family situation to friends and neighbors so they will understand us	3	2	1	0	☐	☐		☐	○
31 Encouraging child(ren) with medical condition to be more independent*	3	2	1	0	☐	☐	○	☐	
32 Keeping myself in shape and well groomed	3	2	1	0	☐	☐		○	☐
33 Involvement in social activities (parties, etc.) with friends	3	2	1	0	☐	☐	☐	○	
34 Going out with my spouse on a regular basis	3	2	1	0	☐	☐	☐	○	
35 Being sure prescribed medical treatments for child(ren) are carried out at home on a daily basis	3	2	1	0	☐	☐		☐	○
36 Building a closer relationship with my spouse	3	2	1	0	☐	☐	○	☐	
37 Allowing myself to get angry	3	2	1	0	☐	☐		○	☐
38 Investing myself in my child(ren)	3	2	1	0	☐	☐	○		☐
39 Talking to someone (not professional counselor/doctor) about how I feel	3	2	1	0	☐	☐	☐	○	
40 Reading more about the medical problem which concerns me	3	2	1	0	☐	☐		☐	○
41 Talking over personal feelings and concerns with spouse	3	2	1	0	☐	☐	○	☐	
42 Being able to get away from the home care tasks and responsibilities for some relief	3	2	1	0	☐	☐		○	☐
43 Having my child with the medical condition seen at the clinic/hospital on a regular basis*	3	2	1	0	☐	☐	○	☐	
44 Believing that things will always work out	3	2	1	0	☐	☐	○	☐	
45 Doing things with my children	3	2	1	0	☐	☐	○		☐

PLEASE Check all 45 items to be sure you have either circled a number or checked a box for each one. This is important.

FAM ☐☐58
SUP ☐☐60
MED ☐☐62

Answer choices are: 1 = Not at all, 2 = Only a little, 3 = Depends or Not Sure, 4 = Pretty much, 5 = Yes, very much

		1	2	3	4	5
1.	I feel sure of myself.	☐	☐	☐	☐	☐
2.	Most of my friends accept me as much as they accept other people.	☐	☐	☐	☐	☐
3.	Does the situation described in number 2 upset you?	☐	☐	☐	☐	☐
4.	Most people who are important to me, who know me, think I do most things well.	☐	☐	☐	☐	☐
5.	Does the situation described in number 4 upset you?	☐	☐	☐	☐	☐
6.	Most persons my own age seem to be able to do things better than I.	☐	☐	☐	☐	☐
7.	Does the situation described in number 6 upset you?	☐	☐	☐	☐	☐
8.	I'm usually a lot of fun to be with.	☐	☐	☐	☐	☐
9.	Does the situation described in number 8 upset you?	☐	☐	☐	☐	☐
0.	Most persons who I want to do things with really want me to do things with them.	☐	☐	☐	☐	☐
1.	Does the situation described in number 10 upset you?	☐	☐	☐	☐	☐
2.	I'm satisfied with the way I handle most situations.	☐	☐	☐	☐	☐
3.	I'm popular with most people.	☐	☐	☐	☐	☐
4.	Does the situation described in number 13 upset you?	☐	☐	☐	☐	☐
5.	Most people my own age seem to be able to do things easier than I.	☐	☐	☐	☐	☐
6.	Does the situation described in number 15 upset you?	☐	☐	☐	☐	☐
7.	Other people who are important to me really accept me.	☐	☐	☐	☐	☐
8.	Does the situation described in number 17 upset you?	☐	☐	☐	☐	☐
9.	Most people my own age are more satisfied with themselves than I am with myself.	☐	☐	☐	☐	☐
0.	Does the situation described in number 19 upset you?	☐	☐	☐	☐	☐
1.	How self-confident do you usually feel?	☐	☐	☐	☐	☐

Form SEQ-3

Depression

Rarely or None of the Time (Less than 1 Day)

Some or a Little of the Time (1-2 Days)

Occasionally or a Moderate Amount of Time (3-4 Days)

Most or All of the Time (5-7 Days)

During the past week:

1. I was bothered by things that usually don't bother me.....
2. I did not feel like eating; my appetite was poor.....
3. I felt that I could not shake off the blues even with help from my families or friends.....
4. I felt that I was just as good as other people.....
5. I had trouble keeping my mind on what I was doing.....
6. I felt depressed.....
7. I felt that everything I did was an effort.....
8. I felt hopeful about the future.....
9. I thought my life had been a failure.....
10. I felt fearful.....
11. My sleep was restless.....
12. I was happy.....
13. I talked less than usual.....
14. I felt lonely.....
15. People were unfriendly.....
16. I enjoyed life.....

17. I had crying spells.....
18. I felt sad.....
19. I felt that people dislike me.....
20. I could not get "going".....

Adapted from Radloff (1977)

Appendix C

Cover letter and Institutional Review Board Form

April 15, 1995

Dear Mothers:

Dr. Carey and I have selected you to be a part of a research project aimed at helping mothers of asthmatic or chronically ill children. We would greatly appreciate your time in completing the questions mailed to you. This will assist us in identifying specific problems or needs you may be have while involved in the care of your child.

You are not required to participate and your child's health care will not be jeopardized if you do not wish to help us at this point in time. Again, we deeply appreciate any effort at helping us with this project. The return envelopes are not marked or identified in any way so that the information will remain nameless and confidential. Please feel free to call me at (918)-747-2157 if any questions arise.

Julie Davis Allen
Doctoral Candidate
Oklahoma State University

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 03-23-95 **IRB#:** HE-95-024

Proposal Title: MATERNAL WELL-BEING AND A CHRONICALLY ILL CHILD

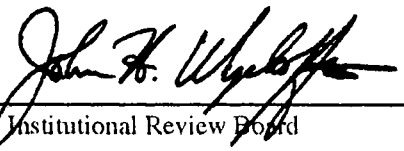
Principal Investigator(s): Patricia Self, Julie D. Allen

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Signature:  Date: April 19, 1995

Chair of Institutional Review Board

VITA

Julie Davis Allen

Candidate for the Degree of

Doctor of Philosophy

Dissertation: MATERNAL WELL-BEING AND A CHRONICALLY-ILL CHILD

Major Field: Human Environmental Sciences

Area of Specialization: Family Relations and Child Development

Biographical:

Education: Graduated from Sioux City Central High School, Sioux City, Iowa in 1966; attended the University of Iowa, Iowa City, Iowa, from 1966 to 1970. Received Bachelor of Science degree in Nursing from the University of Iowa in 1970. Attended the University of Iowa from 1974 to 1975. Received a Masters of Arts degree in Nursing of Children from the University of Iowa in 1975. Completed the requirements for the Doctor of Philosophy degree at Oklahoma State University in May, 1996.

Experience: Assistant Head Nurse Kidney Transplant Team, Urological Surgery Unit, University of Iowa Hospitals and Clinics from 1970 to 1974. Nurse Clinician in the Intensive Care Unit for Burns, University of Iowa Hospitals and Clinics from 1975 to 1977. Staff nurse in the Pediatric Intensive Care Unit, Saint Francis Hospital, Tulsa, Oklahoma from 1977 to 1978. Adjunct Professor at the University of Tulsa, Tulsa, Oklahoma from 1978 to 1985.

Professional Memberships: Oklahoma Nurses Association, Kappa Omicron Nu, Society for Research in Child Development

Awards: John and Sue Taylor Scholarship, 1996