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DEVELOPMENT OF AN ECOLOGICAL MODEL: EVALUATION OF A PARENT
EDUCATION PROGRAM DURING THE TRANSITION TO PARENTHOOD

By

Shi-Ruei Sherry Fang

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ABSTRACT

DEVELOPMENT OF AN ECOLOGICAL MODEL: EVALUATION OF A PARENT EDUCATION PROGRAM DURING THE TRANSITION TO PARENTHOOD

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This study was designed to evaluate the ways families utilize various family resources to adapt to parenting stress that is associated with transition to parenthood. The family resources identified were marital adjustment, parental knowledge of child development, and maternal social support. In addition, this study was also designed to evaluate a parent education program, i.e., the Family Infant Toddler Learning Program (FITL) and its effectiveness in reducing parenting stress. The FITL is a program which requires the participation of mother, father, and their young child ages 3 months to 3 years. Parenting knowledge and skills are taught to parents who are responsible for their own children. Information on four self-report instruments was collected from 76 families in the pretest and 20 families in the posttest.

Based on the ecological framework, parenting stress of individuals and families was viewed as the outcome of functioning of the resource variables in various levels of the family ecosystem. Consequently, a large number of

hypotheses regarding the ways individuals and families adapted to parenting stress in terms of the relationship to each of the resource variables were tested using parametric statistical methods. Path analysis was performed to assess the conceptual model and the hypothesized causal relationships between resource variables and parenting stress.

The results indicated that both mothers and fathers were vulnerable to parenting stress which was associated with the resource variables. Mothers also tended to report more negative aspects of parenthood than fathers. Marital adjustment strongly affected maternal parenting stress and maternal social support strongly affected paternal parenting stress.

After the FITL experience, the differences between mothers and fathers in all domains of measurement decreased. Most of all, maternal social support, marital adjustment, and child development knowledge increased while parenting stress decreased. This study demonstrated the effectiveness of the FITL program for this particularly highly educated middle-class mothers and fathers.

To my mother and her goal for me

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CHAPTER I

INTRODUCTION

The arrival of the first child is an event of extreme biological, psychological, and social significance. It is a transition that challenges and profoundly affects the people who are directly involved in this process of becoming a family. The consequence of the first child's arrival signifies an event that ripples through parents' relationship and along their life course in important and irreversible ways. Parenthood is considered a normative life experience, however, it is highly stressful for the majority of adults (Miller & Myers-Walls, 1983).

In the study of transition to parenthood, the effect of an infant on parents' relationship with one another and family interaction is well documented. The period of transition to parenthood was found, at best, to be a time accompanied by some difficulties (Meyerowitz & Feldman, 1966; Russell, 1974) and at worst, a crisis of severe proportions (Dyer, 1963; Hobbs, 1965, 1968; Lemasters, 1957). For the large majority of adults, one of the sharpest changes in life is having the first child. In fact, Rossi (1968) has stated that the major transition from

adolescence to adulthood is not marriage, but parenthood. As soon as the first infant is born, parents have to face the change of roles and the social expectation of what parents should do. By comparison, later normative changes during the parental career occur much more gradually. At the point of transition to parenthood, the parental roles are abruptly acquired, often with little preparation. Transition to parenthood, therefore, represents a period of stressful time for most of the adults involved in this transition.

Despite the fact that much theory and research have been generated in studying high-risk families and their response to various nonnormative and normative transitions, there is a lack of systematic and theoretically guided research of "mainstream" families' responses to normative events, such as transition to parenthood. In addition, numerous support groups and parent education opportunities have been available only for high-risk families. Services for parents whose children are not at special risk have been confined to preparation for childbirth classes. Nevertheless, the job of parenting an infant effectively is being taken seriously by young adults more than ever before. The mainstream families are not free from the uncertainties, stress, and social pressure of parenting. Programs that provide parental support and education which result in greater sense of parenting competency for mainstream families are needed.

Purpose of the Study

In reviewing the literature, the majority of research studying the transition to parenthood has focused primarily on the mother-infant dyad as a static unit of analysis. The role of father and the family as an integrated system of many forms of relationship which are affecting, as well as being affected by, the presence of the infant are often not included in these studies. Furthermore, there are no widely available interventions specifically designed to prepare couples for becoming parents (Markman & Kadushin, 1986). Consequently, new parents are left alone to deal with the stress they face in adjusting from the adult-centered dyad to a child-focused triad. The purpose of this study, therefore, was an attempt to focus on the potential parenting stress associated with the transition to parenthood for parents with no prior identified risk. More specifically, the study examined the association between various resource variables and parenting stress at this transitional period of time. Furthermore, it investigated the effect of the Family Infant Toddler Learning (FITL) program on families. The FITL program is an ongoing program which approaches the family as an integrated system. It provides support and educational opportunities for parents, child, and family to learn and to grow together. The FITL program tries to promote family strength and capabilities in order that families can successfully resolve this very

difficult transition. It is hoped that the results of this study will provide some empirical evidence upon which to build a more comprehensive picture of the complex process of transition to parenthood. Furthermore, knowledge from this intervention program can be used in helping parents cope more effectively with this potentially very difficult period in the family life-cycle.

Statement of the Problem

This research examined selected family and individual factors which are associated with parenting stress during the period of transition to parenthood. It attempted to answer the question about why some families coped with this transitional period with ease while others faced this period with a great deal of difficulty. It also examined the impact of the intervention program, i.e., the FITL program, on a family's adaptation to parenthood. The following research questions were asked:

1. What is the relationship between the resource variables, i.e., marital adjustment, maternal social support, child development knowledge, and the outcome variable, i.e., parenting stress?

2. Does gender of parents have an effect on the experience of transition to parenthood in terms of relationship between resource variables and the outcome variable?

3. Does the FITL program have an impact on the participating families during the transition to parenthood? If it does, who truly benefited from the FITL program, i.e., mothers or fathers?

4. Does the conceptual model (Figure 1) fit the data? It focuses on the causal relationship between the resource variables and the outcome variable. This is in part an evaluation of the effectiveness of the FITL program.

Conceptual Framework

Due to the purposes and objectives of this study and the inadequacy of conceptual frameworks to encompass the very complex nature of a family's adaptation to the period of transition to parenthood, components of three conceptual frameworks were selected and combined to guide this study. These three conceptual frameworks were: (a) the family ecological framework (Bubolz & Sontag, in press), (b) the ABCX family stress model (Hill, 1949), and (c) the family developmental approach (Duvall, 1977). Each of the conceptual models will be described and selected components identified. The proposed conceptual framework will be discussed in detail.

Family Ecological Approach

The ecological perspective refers to the interaction between an organism and its environment. In its application to the family, as indicated in Figure 2, emphasis is on the

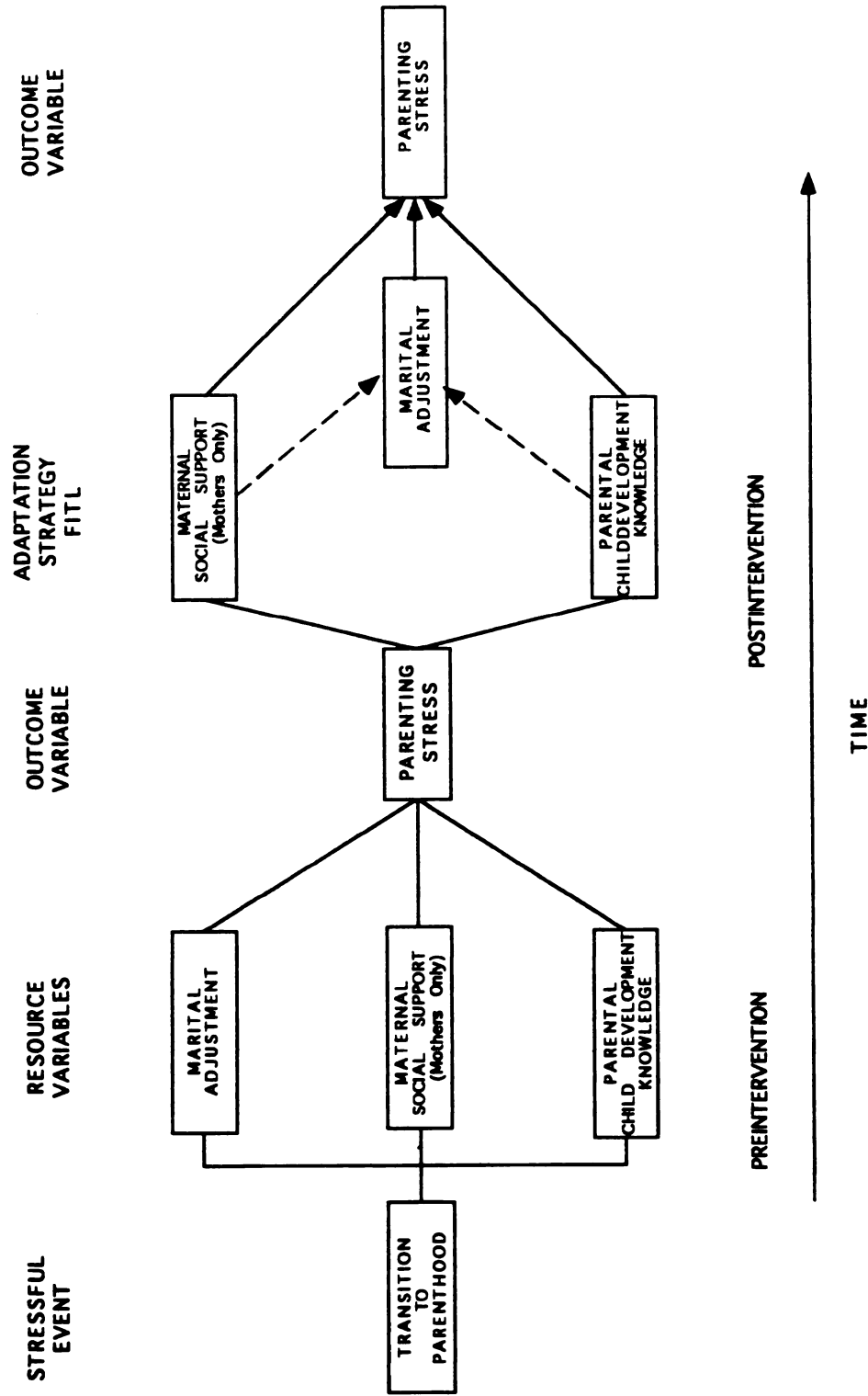


Figure 1. Conceptual Model

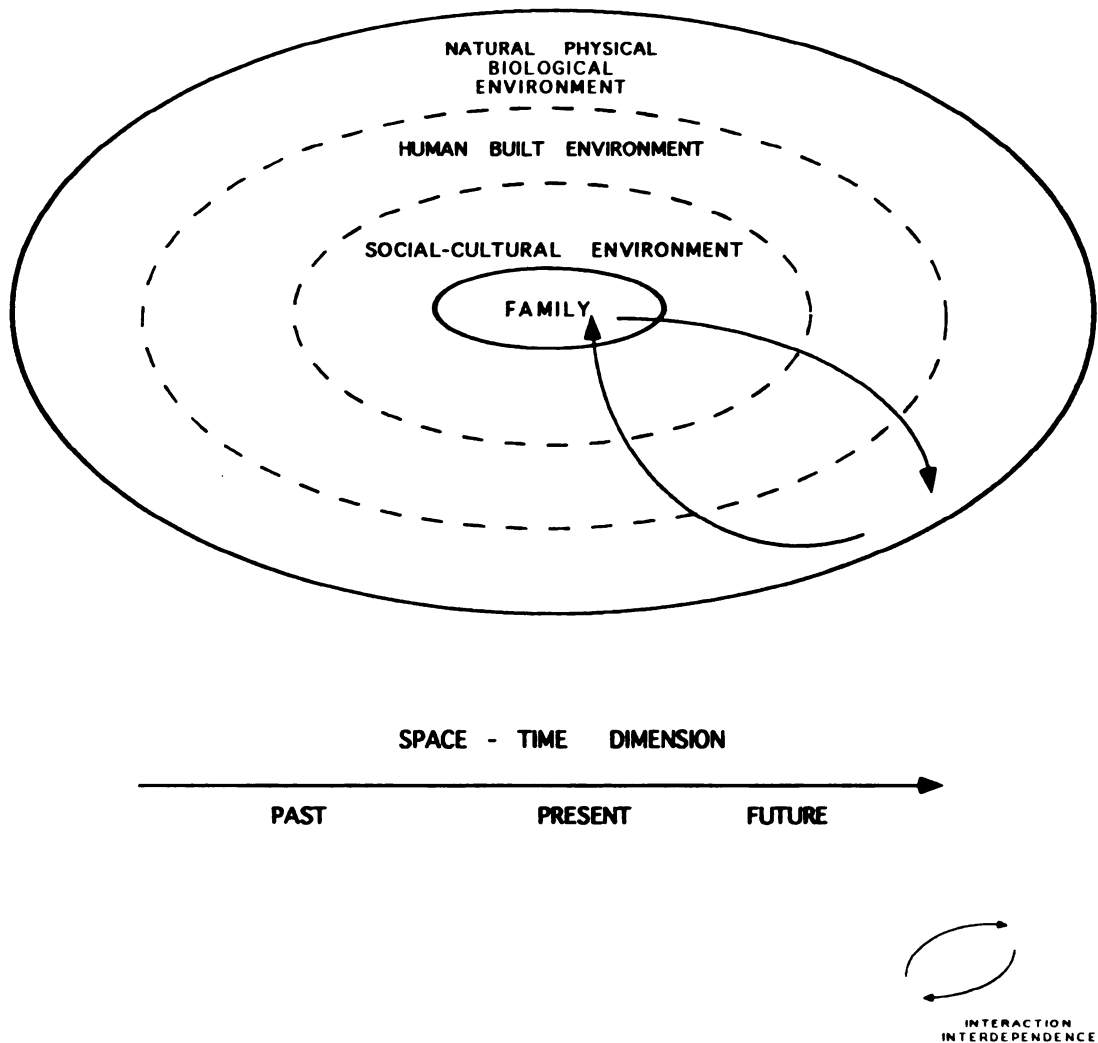


Figure 2. Family Ecosystem

Source: Human ecology theory. by Bubolz, M. & Sontag, S. (in press). In P. Boss, W. Doherty, R. LaRossa, W. Shumm, & S. Steinmetz (Eds.), Sourcebook of family theories and methods: A contextual approach. New York: Plenum.

family as a system interdependent with its physical-biological, human built, and social-cultural settings (Bubolz & Sontag, in press). The outcome of these interactional processes is the adaptation of the family to the environment. The ways a family selects and uses resources as means toward adaptation are emphasized in the ecological perspective (Bubolz & Sontag).

According to the family ecosystem approach, family is viewed as a system which incorporates the interdependence of family with the environment. The basic premise of family ecosystem is that the family is in constant interaction with its environment, and the parts and wholes are interdependent. The whole consists of all the parts and the way in which parts operate in relation to each other. In order to study the impact of the transition to parenthood on family, family needs to be investigated as a system which incorporates the interdependence of family members. What affects part of the system will affect the whole. Family, therefore, has to be examined at different levels.

Furthermore, one also needs to take a holistic approach in viewing family, i.e., family needs to be examined within the broader social context, which in turn has implications for the family as well as the environment in which the family is embedded. The ecological perspective provides a framework to examine these multilevel functions and systems in relation to each other over time.

According to Bubolz and Sontag (in press), the following assumptions from the ecological perspective are important to the present study. These assumptions are:

(1) All parts of the environment are interrelated and influence each other. Families interact with multiple environments. (2) Families are semi-open, goal directed, dynamic, adaptive systems. They can respond, change, develop, and can act on and modify their environment. Adaptation is a continuing process in the family ecosystem. (3) Families are energy transformation systems and need matter energy for maintenance and survival, for interactions with other systems, and for the adaptive creative function. Information organizes, activates, and transforms matter and energy in the family ecosystem. (p.16)

The strength of using the ecological approach in the present study lies in its potential to focus the impact of transition to parenthood on individual and family levels.

Family Developmental Approach

The family developmental approach made several important theoretical contributions to the understanding of individual and family changes that take place during the transition to parenthood. Major assumptions drawn from the family developmental framework which are appropriate to the present study include: (a) viewing the period of transition to parenthood as occurring within the context of the entire sequence of concrete developmental events that characterize family life, (b) viewing the development of individuals as embedded and integrated into a family system of development, (c) viewing changes in family system as influencing changes in the individual and viewing the individual's adaptation to change thus impacting on the family's adaptation to change,

and (d) viewing individual parent's adaptation to parenthood as affecting the parent-infant relationship and eventually the infant's development (Carter & Galdrick, 1980).

The strength of the family developmental approach lies in viewing the total family system as one unit. Therefore, the impact of the period of transition to parenthood needs to be investigated in the context of the entire family. Furthermore, family developmental theory is important in the present study because of its theoretical significance in the development of the intervention program-the FITL program. The Family Developmental Life-Cycle Theory emphasizes the tasks and transitions couples and families encounter as they negotiate the family life-cycle. This emphasis reflects the belief that "the manner in which this early phase of the family life-cycle is handled may have far-reaching consequences for the psychological well-being of both children and family" (Markman & Kadushin, 1986, p.174-175).
ABCX Family Stress Model

The ABCX family stress model was developed by Hill (1949) with its origin in the concept of developmental crisis. The concept of developmental crisis follows from the assumption that a particular developmental task must be accomplished at a particular point of time in order to achieve future developmental tasks successfully. Unsuccessful accomplishment of developmental tasks leads to the onset of developmental crises that individuals must struggle to resolve. A crisis, therefore, is a function of

a normative developmental event. The ABCX family stress model describes the stressful situations experienced by most of the families in the life-cycle. Transition to parenthood was identified by Hill (1958) as one of the major stressful events in the adult's life in terms of the psychological upheaval it creates for the adults and family.

The ABCX model provides an initial conceptual framework for the present study by measuring the differences in a family's capability to cope with the impact of transition to parenthood and by determining whether and to what degree the parenting stress is a crisis for the family. According to Hill (1949), the ABCX family stress model focuses on four components, they are: A (the stressful event) interacting with B (the family's stress meeting resources) interacting with C (the definition the family makes of the event) produces X (stress or crisis).

Three elements of the model were selected and incorporated into the present proposed framework. These three elements were: the onset of the stressful event, the family's current resources in meeting the stressful event, and the level of stress experienced by the family associated with the stressful event. The onset of the stressful event in the present study was identified as the initial transition to parenthood.

Based on the review of the literature, the available empirical studies have indicated a set of resource variables that are functional in coping with the transition to

parenthood. These resource variables identified in the present study were: (a) marital adjustment between husband and wife, (b) maternal social support, and (c) parental knowledge of child development. The importance of the family's resources in the stressful situation lies in the ability of the family to achieve balance between demands and existing resources. Finally, the stress in the present study was identified as parenting stress experienced by the family as the parents made the transition to parenthood. The FITL program was the functional strategy adopted by the families in coping with the transition in the present study. Therefore, a model of the family's adaption to the period of transition to parenthood was developed for the purposes of this study.

Conceptual Model

The model to be explicated is presented in Figure 1. As can be seen in the diagram, in the preintervention stage the model contains the transition to parenthood as the stressful event which triggers the parenting stress; three resource variables are: marital adjustment, maternal social support (this variable applies to mothers only), and parental child development knowledge; the outcome variable is parenting stress. In the postintervention stage, the FITL program is viewed as the coping strategy that families adopt in the transition to parenthood. The resource variables and the outcome variable remain the same as in the preintervention stage.

The model suggests that parenting stress is influenced by forces emanating from within the individual parent (amount of parental knowledge in child development) and from the broader social context in which parent-child interaction is embedded--specifically, social support network (for mothers only) and parental marital relationships. The focus of the conceptual framework is on the effect the resource variables have on the parenting stress as the outcome variable in both preintervention and postintervention phases.

In the postintervention stage, parenting knowledge and skills in child development and social emotional support gained from the FITL program are the resource variables and will have direct effect on the parenting stress experienced. Furthermore, even though the focus of the FITL program is not specifically on a couple's relationship, it is believed that couples who attend the program together will gain a positive feeling of closeness and affection. Parenting stress, will be further reduced. Marital adjustment is, therefore, identified as another resource variable which will have direct impact on the outcome variable, i.e., parenting stress.

In assessing the role of resource variables, i.e., marital adjustment, amount of parental child development knowledge, and maternal social support, it should be noted that these variables are not stable traits but rather are

affected by the internal and external demands on the family unit.

Theoretical Assumptions

The following assumptions are made in this study.

1. The family ecosystem is composed of the environed unit of family, the external environment, and the patterns of interaction between them (Bubolz & Sontag, in press).
2. A family is a semi open, goal directed system interacting and transacting with other systems to exchange resources for need satisfaction (Bubolz & Sontag, in press).
3. Adaptation to the period of transition to parenthood occurs in the context of a complex family system and is an ongoing process. Strengthening each component is extremely important in adaptation since one part of the system has an effect on others.
4. A family's process of adaptation involves both individual family members and family as a whole as well as the interactions between family members and family.
5. Transition to parenthood includes structure, process, and outcome.
6. The manner in which families handle the transition to parenthood may have a detrimental effect on the well-being of all the family members.

Theoretical Definitions

The following are definitions of the primary concepts contained in the proposed conceptual framework for this study.

1. **Period of transition to parenthood:** refers to a life event signaled by the birth or adoption of a child. Parenthood is a status as well as long-term intensive parenting tasks and activities.

2. **Resources:** refers to the individual or family's human capital, i.e., strengths, skills, knowledge; and physical capital, i.e., money, materials, and equipment, which impact on the family's ability to prevent a stressful event from creating a crisis or the family's ability to recover from a stressful event.

3. **Marital adjustment:** refers to a multidimensional variable that denotes variation in overall adjustment to marriage (Burr, 1973). Marital adjustment is part of the individual/family resources which influence the coping abilities during stressful event, i.e., the period of transition to parenthood.

4. **Maternal social support:** refers to the capabilities of people or institutions outside the family unit with which mothers can form a network in which the mother is cared for and loved and feels that she is esteemed and valued (Lavee, McCubbin, & Olson, 1987). Maternal social support is viewed as part of the individual/family resources.

5. **Parental knowledge of child development:** refers to the amount of information each parent has on various aspects of child development, such as child's cognitive development, social emotional development, physical-motor development, and language development. Parental knowledge of child development is viewed as part of resources.

6. **Parenting stress:** refers to a condition of felt tension or difficulty due to the process of adapting to the parenting role.

7. **Intervention program:** refers to program designed for families with young infants in order to promote multiple aspects of parenting function by increasing parental competencies in knowledge of child development and in interacting with their young children as well as by providing a support system for the families, which eventually will increase the well-being of the children and the families.

Research Hypotheses

Several major working hypotheses were developed for the various phases of the present study.

Preintervention Phase

Mothers.

1. There will be no difference in marital adjustment scores between mothers with high levels of parenting stress and mothers with low levels of parenting stress.

2. There will be no difference in maternal social support scores between mothers with high levels of parenting stress and mothers with low levels of parenting stress.

3. There will be no difference in the amount of child development knowledge between mothers with high levels of parenting stress and mothers with low levels of parenting stress.

4. There will be no relationship between the resource variables, i.e., marital adjustment, maternal social support, and amount of child development knowledge and the outcome variable, i.e., levels of parenting stress for mothers.

Fathers.

5. There will be no difference in marital adjustment scores between fathers with high levels of parenting stress and fathers with low levels of parenting stress.

6. There will be no difference in the amount of child development knowledge between fathers with high levels of parenting stress and fathers with low levels of parenting stress.

7. There will be no relationship between the resource variables, i.e., marital adjustment, amount of child development knowledge, and the outcome variable, i.e., levels of parenting stress for fathers.

Couples. In order to form the couple variables, mothers' and fathers' responses to each of the measurements will be added and averaged to form the couples' scores. The

hypotheses generated from the family variables were:

8. There will be no difference in marital adjustment scores between couples with high levels of parenting stress and couples with low levels of parenting stress.

9. There will be no difference in the amount of child development knowledge between couples with high levels of parenting stress and couples with low levels of parenting stress.

10. There will be no relationship between the resource variables, i.e., marital adjustment, amount of child development knowledge, and the outcome variable, i.e., parenting stress in the high parenting stress couples.

11. There will be no relationship between the resource variables, i.e., marital adjustment, amount of child development knowledge, and the outcome variable, i.e., parenting stress in the low parenting stress couples.

Mothers versus fathers.

12. There will be no difference between mothers and fathers in marital adjustment scores.

13. There will be no difference between mothers and fathers in the amount of child development knowledge.

14. There will be no difference between mothers and fathers in the amount of parenting stress.

Postintervention Phase

Mothers versus fathers.

15. There will be no difference between mothers and fathers in marital adjustment scores after the FITL experience.

16. There will be no difference between mothers and fathers in the amount of child development knowledge after the FITL experience.

17. There will be no difference between mothers and fathers in the amount of parenting stress after the FITL experience.

Pretest versus Posttest

Mothers.

18. There will be no difference in pretest and posttest for mothers on marital adjustment.

19. There will be no difference in pretest and posttest for mothers on the amount of parental child development knowledge.

20. There will be no difference in pretest and posttest for mothers on maternal social support.

21. There will be no difference in pretest and posttest for mothers on parenting stress.

Fathers.

22. There will be no difference in pretest and posttest for fathers on marital adjustment.

23. There will be no difference in pretest and posttest for fathers on the amount of child development knowledge.

24. There will be no difference in pretest and posttest for fathers on parenting stress.

Couples.

25. There will be no difference in pretest and posttest for couples on marital adjustment.

26. There will be no difference in pretest and posttest for

couples on the amount of child development knowledge.

27. There will be no difference in pretest and posttest for couples on parenting stress.

Evaluation of the Posttest Conceptual Model

Mothers.

28. Maternal social support has an inverse, direct impact on maternal parenting stress.

29. Parental child development knowledge has an inverse, direct impact on maternal parenting stress.

30. Marital adjustment has an inverse, direct impact on maternal parenting stress.

31. Maternal social support has a direct impact on marital adjustment.

32. Parental child development knowledge has a direct impact on marital adjustment.

Fathers.

33. Parental child development knowledge has an inverse, direct impact on paternal parenting stress.

34. Marital adjustment has an inverse, direct impact on paternal parenting stress.

35. Child development knowledge has a direct impact on paternal marital adjustment.

Operational Definitions

The major concepts included in the present study are operationalized by the following measurements.

1. Marital adjustment. The evaluation of marital adjustment was determined by the individual score attained on the Dyadic Adjustment Scale (Spanier, 1976) by both husband and wife. Marital adjustment was considered as a resource variable in keeping with the literature on family stress and adaptation (Lavee, McCubbin, & Patterson, 1985).

2. Maternal social support. Amount of perceived maternal social support was measured by the mother's response to the Maternal Social Support Index (MSSI) (Pascoe, 1982).

3. Parental child development knowledge. The evaluation of parental child development knowledge was determined by the individual score attained on the Parental Knowledge of Child Development (PKD) (Bristor & Williams, 1988) by both husband and wife.

4. Parenting stress: The evaluation of parenting stress was determined by the individual score attained on the Parenting Stress Index (PSI) (Abidin, 1986) by both husband and wife.

Significance of the Study

The present study is important because it provides insight on how families organize selected resources in various levels to combat the stress they experience in the period of transition to parenthood. Most previous studies were concerned with one or two aspects of the transition to parenthood and very few have taken the multilevel systems of organization into consideration as important concerns.

Furthermore, the focus of the study is not only on the content of each variable but on their patterns of interconnection with the outcome variable, i.e., parenting stress. In other words, the results of this study can provide some information regarding the possibility of helping families make more successful adjustments during this period of transition to parenthood. It is believed that the new parent's capacity to make successful adjustments at this time may set a future course of effective, competent parenting, whereas serious difficulties in adjustment may lead to marital discord and difficulty in providing for the child's needs. The intervention program is important in providing extended support to the family and thereby promoting well-being within the different levels of the system. The most significant aspect of the study is its potential to provide empirical evidence for understanding how family members in a family unit organize the existing resources internally and externally to meet the demands of this difficult period of transition to parenthood.

CHAPTER II

REVIEW OF LITERATURE

Becoming a parent is anticipated by many couples with celebration, joy, and a sense of fulfillment. It marks the onset of adulthood which signifies the continuation of family lines by linking the past with the future. However, this dramatic change in life is increasingly being described as a time of stress and potential crisis (Cowan & Cowan, 1987, 1988; Lavee et al., 1987).

The period of transition to parenthood was identified as a period of time when many families fail to meet the demands of developmental role changes and task realignments. This brings about temporary disequilibrium and lack of integration in the family even if the event is anticipated and evaluated as positive (Dohrenwend & Dohrenwend, 1974). How individuals and couples manage or are helped to adjust to this difficult time in their lives is not yet clear (Cowan & Cowan, 1987).

In the following section, an attempt will be made to summarize prior research on the transition to parenthood from the perspective of the proposed variables identified in the framework, i.e., the event of transition to parenthood

and the outcome variable of parenting stress, the resource variables: marital relationship, social support, and parenting knowledge. Numerous family support programs to help families cope with this normative life event as they move away from couple stage to family formation will also be examined.

Parenting Stress

For the large majority of adults, one of the sharpest changes in life is having the first child. Hill (1949) was among the first researchers to introduce the notion of crisis in the study of adding new family members to the family, in this case, adding a new child to the family. Crisis was defined by Hill as "any sharp or decisive change for which old patterns are inadequate....a crisis situation in which the usual behavior patterns are found unrewarding and new ones are called for immediately" (Russell, 1974, p.294). By using the term crisis, Hill did not imply catastrophe but rather identified crisis as a force for growth as well as dysfunction. The outcome of the transition depended on (a) the state of organization or disorganization of the family when the transition takes place, (b) the resources the family has in order to adapt to the transition, and (c) family members' interpretations of the event.

Much of the early research on the transition to parenthood tended to focus on the negative impact of the birth of the first child on the family. Probably the best known series of studies on the period of transition to parenthood is the transition as crisis series which begins with the suggestive findings of LeMasters' (1957) work. In his study, LeMasters interviewed 46 couples. Eighty-three percent of these middle-class white subjects who had become parents in the previous 5 years reported what LeMasters and his sample jointly agreed to be "extensive" or "severe" crisis within the first year after giving birth. LeMasters pointed out that the couples had romanticized parenthood with very little role preparation which perhaps contributed to the great difficulty in adjusting to the arrival of the first child.

Following the same line of thinking, Dyer (1963) used a five-point Likert type scale questionnaire to measure the amount of difficulty experienced by the parents. Of the 32 couples included in the sample, the majority reported that they experienced extensive or severe crisis in the transition to parenthood.

Hobbs (1965) proposed an objective way of measuring crisis. In the study done by Hobbs and Cole (1976), the authors used a 23-item checklist based on responses obtained from the studies done by LeMasters (1957) and Dyer (1963). Each participant was asked to indicate whether an item was a "bothersome event". A single global index of crisis was

developed by obtaining the average score of the sum of individual's responses. An artificial cutoff point for crisis thus was established. In both studies, Hobbs found most of the new parents were mildly or slightly "bothered" by the arrival of the first child. He concluded that initiating parenthood may be slightly difficult, but not sufficiently difficult to warrant calling it a crisis. (Hobbs & Cole, 1976, p.729).

Since the publication of the parenthood as crisis series, the difficulties parents experienced raised serious concerns about the well-being of parents during the transition of parenthood. The period of transition to parenthood may represent a very stressful time in the adult's life since the role and tasks of parenting are acquired abruptly. The specific parenting stresses that parents may face are physical and psychological stress. Even before the child is born, parents, especially the expectant mothers, are likely to experience physical stress. However, physical stress is most pronounced during the years when children are young. Miller and Sollie (1980) found when new parents were asked to write about the positive and negative experiences of having the first infant, the most frequent negative response centered around physical demands. New parents often find the physical demands and activities with infant caregiving difficult to cope with. During the transition to parenthood it is not unusual for the new parents, especially mothers, to report being worn out,

fatigued, and exhausted (Miller & Myers-Walls, 1983).

A growing body of research has shown that part of parenting stress is directly influenced by forces emanating from within the individual parent (parental characteristics) and within the individual child (child characteristics). Research on the development of behavior disorder of children (Thomas, Chess, & Birch, 1968) has suggested that the existence of stressful child characteristics is one of the major factors contributing to the development of parenting stress. Parenting stress in the first 3 years of life is especially critical in relation to the child's behavioral/emotional development and to the development of parent-child relations. Evidence concerning the contribution of the child's characteristics to parent's well-being is sketchy (Cowan & Cowan, 1987). The infant characteristic that has received the most attention in terms of influencing parenting functioning is temperament (Belsky, 1984). Parental influences on the well-being of children can be found mostly in research on child maltreatment. In general, detailed observational studies revealed that cognitive and motivational competencies are promoted by attentive, warm, stimulating, responsive, and nonrestrictive caregiving (Belsky, 1984).

In order to understand the process of socialization, researchers are concerned about the "goodness of fit" between parent and child. Further, they recognize that there are certain parent characteristics as well as child

characteristics which influence the parent's ability to respond to the child effectively. It is reasonable to assume that when there is a "goodness of fit" between the parent's and child's characteristics, parenting stress can be reduced tremendously; and parenting stress is high when there is a lack of "goodness of fit" between parent's and child's characteristics. Furthermore, experience and knowledge on parent's part have been found to be crucial in increasing parent's effectiveness in responding to the child's characteristics (Fang, 1981). Parenting stress, therefore, is a very important variable in deciding how well the family is coping with the transition of parenthood period.

Although some families cope with the transition to parenthood with ease, others with tremendous difficulties have the potential to develop into family crises. Several problems of the parenthood-as-crisis research warrant attention in reading the results of the studies.

Almost all of the studies done in the parenthood-as-crisis series were based on retrospective self-reports. Subjects were thus prone to both positive and negative biases of recall and attribution.

There was no control on age of children. One can assume that the developmental stage of children can be a powerful influence on parental attitude and feelings. This in turn affects the appraisal of the impacts children have on the family life.

Data from the LeMasters' study included parents of children up to five years of age, whereas Hobbs and his colleagues focused on parents' adaptation to parenthood in the first few postpartum months. Hobbs' conclusion about minimal impact of children on family may stem from the occurrence of an early "baby honeymoon" syndrome for some parents.

Much of the research on transition as crisis does not provide information to view family as a system. Instead, the studies were based entirely on measurement of each individual spouse. Finally, as pointed out by Rossi (1968) and Jacoby (1969), the concept of crisis was improperly used to describe a normative event such as parenthood. The crisis perspective does not allow opportunity for parents to report the positive and rewarding aspects of parenthood. From this point of view, the transition of parenthood research has grown to include data on positive as well as on negative aspects of becoming a parent.

Russell (1974) was among the first researchers to look into the positive aspects of parenthood. In her attempt to counteract the negative approach in the previous studies, a 12-item gratification checklist was developed. By using the checklist, the author was able to investigate the rewarding aspects arising from first parenthood among a randomly drawn sample. Most of the respondents viewed the first year of parenthood as moderately stressful as well as filled with many rewards. This pattern was more evident among the

lower-class subjects. Russell postulated that perhaps the more educated people discover alternative routes to self-fulfillment and place less importance on their roles as parents. Furthermore, for the middle-class parents, the comparison level of self-fulfillment perhaps is much higher than for the less educated subjects; therefore, the middle-class parents may experience fewer gratifications from the initial experience of parenthood than their lower-class counterparts. Earlier research studies which used exclusively middle-class samples indicated higher crisis scores than studies drawn from more representative respondents. Parenting stress during the transition to parenthood seems to be related to social class.

The majority of the earlier studies were conducted after the fact of having a baby by using various checklists (e.g., Dyer, 1963; Russell, 1974; and Hobbs, 1965). The investigators relied upon the recall responses of parents to evaluate the initial changes that occurred in their lives. Therefore, the validity of the responses has to be questioned. Furthermore, the emphasis of the checklists used was on the coping abilities of the individuals. As pointed out by LaRossa and LaRossa (1981), these checklists were designed to measure an individual's attitude from an individualistic point of view and were unable to detect the behavioral changes or adjustment aspect of the parenthood. The individualistic approach of studying the transition to parenthood, according to LaRossa and LaRossa, was not able

to capture the complex and dynamic process of becoming parents.

In conclusion, there is reason to believe that having the first child ushers in many significant changes in life. The position towards classifying the period of transition to parenthood as a period of stress with the potential to develop into a crisis situation was taken by most of the researchers. However, in recent studies, the term "crisis" has been completely dropped from the literature. Furthermore, the stress experienced in this transition does not seem to imply a basic instability of the triad. Instead, most of the parents recognized that the birth of the first child can also be a rewarding experience by providing them with a sense of fulfillment, a sense of new meaning in life, and a sense of family cohesiveness due to the strengthened bond between husband and wife which in turn facilitates the family's adaptation to stress (Miller & Sollie, 1980).

Marital Relationship

It has been well documented that there is a relationship between the birth of a child and lower marital happiness and satisfaction of parents (Glenn & McLanahan, 1982; Harriman, 1986; Miller & Sollie, 1980; Waldron & Routh, 1981; Wente & Crockenberg, 1976). Most of the researchers agree that many couples experience a tremendous

decrease in marital satisfaction upon the arrival of the first child. Some studies found wives' perceptions of marital adjustment were more affected than that of husbands (Ryder, 1973; Waldron & Routh). Other studies suggested that the father-infant relationships were more affected by a second order effect, i.e., fathers' relationships with their wives (Goth-Owens, Stollak, Messe, Peshkess, & Watts, 1982).

Ryder (1973) collected pretest and posttest scores by using the Locke-Wallace (1959) Marital Adjustment Scale to study the effect of having a child on marital satisfaction. The scale was given to couples before the child was born and after the child was born. Their scores were compared with a group of childless couples. In addition, a questionnaire of "Lovesickness" was administered to all the couples in order to investigate whether the couples felt their spouses paid enough attention to them or were adequately loving to them. Ryder found that wives who had become mothers were significantly more likely than the childless couples to report difficulties in marital satisfaction in terms of their husbands not paying enough attention to them.

Waldron and Routh (1981) replicated Ryder's study almost a decade later. Gender role characteristics of each spouse were also included in the study. It was postulated that husbands and wives who scored high on both femininity and masculinity scales were more responsive towards baby's needs. The Locke-Wallace Marital Adjustment Scale and the Bem Sex Role Inventory were administered to a group of 46

upper middle-class couples during the last trimester of the pregnancy and again after the birth of the child. All the couples were contacted through Lamaze classes. No comparison group was used in the study. Similar to Ryder's study, the results of this study showed that wives' marital adjustment scores were significantly lower than their husbands' scores following the birth of the child. No relationship was found between gender role characteristics and marital relationship.

The study is criticized by lack of representativeness in its sample. The sample was obtained from Lamaze classes with upper middle-class background. It is not unreasonable to question the fact that Lamaze participant parents may be different from the parents who choose not to participate in Lamaze or any prenatal class at all. Consequently, the generalizability of the study has to be challenged. Possibly a more important problem with the study was that the time interval between pretest and posttest was too short to assess the full impact of the children on their parents. The low marital satisfaction found among new mothers in both of the studies was perhaps in part a reflection of postpartum depression which might explain why the women had more negative feelings toward the marriage than the men. The timing of the postnatal evaluation of the marriage, therefore, is a critical factor in the results obtained.

The importance of timing in assessing the full impact of having a child on parental marriage is recognized by more

recent studies. In a longitudinal study to assess marital changes in response to the first-born and later-born child, Belsky, Spanier, and Rovine (1983) conducted research with 72 volunteer couples. These couples were studied from the first trimester of pregnancy through the ninth postpartum month. In the study both group and individual differences were investigated. It was found that individual differences tended to be stable over time, i.e., those couples who scored high on various measures initially tended to do so across time. Across-time correlations of marital satisfaction ranged from .52 to .79 over the assessment period. When examining both group and individual scores, the results indicated a negative impact of having a child on the marital relationship regardless of whether the child was first-born or later-born. Furthermore, the authors found the most dramatic effect on the marriage took place at three months postpartum. In the study conducted by Miller and Sollie (1980), no change was found from the sixth prenatal month to the first postnatal month. Miller and Sollie suggested that the stressful effect of the baby is buffered by the honeymoon reaction that parents have toward their new baby, i.e., positive feeling of having a child. From the findings of both studies, Belsky et al., (1983) suggested that the honeymoon period extended from the first month but was over by the third postpartum month. In addition, wives' marital adjustment also showed more sensitivity to the effect of adding a baby to the family. From the results of

the studies, one can conclude that marital quality declines accompanying parenthood. This decline continues as additional children are added to the family. The question of why some couples adapt well while some experience extreme difficulty during the transition to parenthood remains unanswered.

Wente and Crockenberg (1976) investigated father's transition to parenthood. Forty-six fathers in Lamaze training groups responded to a questionnaire and an interview. Husband-wife relationship was particularly important for the fathers in their total adjustment to fatherhood. Furthermore, lack of parenting knowledge was also associated with high adjustment difficulty. Interestingly, Lamaze training did not seem to have any positive effect on these fathers' adjustment in any area. Fathers of four- to seven-month infants did not report any greater overall adjustment difficulties when asked to recall their earlier experiences. The authors suggested that the baby honeymoon period could go up to seven months after the child was born.

The major weakness of this study was the use of recollection data. The problem with using recollection reports by the respondents is that perhaps people are reluctant to admit to the fact that their children have adversely affected them. Perhaps this attitude is more pervasive among the males than the females. This in part explains why fathers do not perceive their early experience

with their infant as particularly difficult. More importantly, mothers tended to be more directly involved in attending to the baby's needs especially in the early months. Fathers were not likely to be affected to the extent that mothers were. Therefore, the baby honeymoon period is longer for fathers. The lack of a positive effect on the Lamaze participants found in the study posed some questions:

1. Were these Lamaze fathers perhaps initially more stressed than fathers in general? Attending the Lamaze classes did not seem to reduce their stress effectively or prepare them for dealing with the transition.
2. Do fathers simply not apply to real life situations what they have learned from attending the classes? More studies therefore are called for.

The problem of using unrepresentative samples and trying to generalize the results to the entire population was recognized by Glenn and McLanahan (1982). Their data were obtained from six national surveys completed between 1973 and 1978. The subpopulations were delineated on the basis of sex, race, religion, level of education, employment status, and stated ideal number of children. According to the authors, the negative effects of having children were very pervasive and very likely outweighed positive effects among spouses in the United States of both sexes, of all races, major religious preferences, educational levels, and employment status (Glenn & McLanahan, p.62).

In conclusion, all the researchers, especially the earlier ones, seemed to agree that the main effects of children on marital happiness or satisfaction were very likely to be negative. This negative effect may be predominately found in the culture where individualism is highly valued and where the social and geographic isolation of the nuclear family seems to be the norm which, in turn, minimizes the support one can get from extended family members, friends, and neighbors. The lack of support for the parents-to-be may be a potential for increased strain on the marriages. The changes that accompany the period of transition to parenthood may contribute to individual and marital stress by providing numerous new challenges to the marital relationship. A couple's ability to cope with unexpected stress associated with this transitional period may rest on the state of marriage (Cowan & Cowan, 1987). Furthermore, the great social expectations placed on the roles of husband, wife, and parent make it hard for many persons to be satisfied in this relationship. Perhaps too much emphasis is placed upon the emotional and sexual intimacy of marriages in the United States, therefore, the presence of children in the family creates the potential competition for spouse's affection, time, and attention (Glenn & McLanahan, 1982). Cross-cultural standards, therefore, are needed. More longitudinal studies are urgently called for to study the phenomenon of the average decline in marital satisfaction and to understand the role a

baby plays in producing this change in the parents' relationships, thus, parents can be more realistic in their expectations in the process of becoming parents.

Social Support

New parents must perform a variety of care taking tasks for which they generally have very little training or experience. Prenatal training, if any, has dealt primarily with labor and delivery not with the care of the infant or the family (Rossi, 1968). Furthermore, the prenatal classes do not prepare the couples to anticipate the changes within the conjugal relationship due to the change of family structure nor do they prepare the couples for the changes of their relations with their social network, changes which often leave first-time parents without a meaningful reference group. Guidance from the social network at this time, however, is vital in providing information and advice to the development of parental competence in the parenting role and infant's development.

An abundance of evidence has shown the beneficial impact of social support for the parenting role and its daily demands. In fact, the course and outcome of the transition to parenthood are influenced by the social ecology in which the parents are involved. Social support is believed to influence the psychological well-being of parents which, in turn, is related to the parenting

function. Unfortunately, as far as the investigator can determine, there is no systematic and critical review of the ways in which social support has been measured in the context of transition to parenthood.

Postpartum Depression

The arrival of new baby places a host of new demands on the first-time parents. They must learn how to care for the baby and deal with the major changes occurring in the family system. These events can produce a tremendous amount of stress in the parents (Alpert, Richardson, & Fodaski, 1983; Rossi, 1968). In fact, approximately 20% of mothers may experience some kind of postpartum depression (Hopkins, Marcus, & Campbell, 1984). Maternal social support network, especially by the spouse, plays a crucial role in the prevention of depression, i.e., the depressed women had significantly lower social support than did the nondepressed controls. Furthermore, poor marital quality accounts for the greater proportion of variance in depression scores (Paykel, Emms, Fletcher, & Rassaby, 1980).

The few available studies of social support and postpartum depression have investigated the sources of support received from network members, but have not distinguished the different types of support. In conclusion, the studies did reveal an empirical trend that increasing social support has direct impact on the reduction of postpartum vulnerability especially for mothers. Due to the methodological weakness, little agreement was reached

about the critical type of support and the source of support that soften the emotional impact of the period of transition to parenthood.

Findings show that the marital relationship is the first-order principle support for mothers with inherent potential for exerting positive or negative effects on parenting. Cornic, Greenberg, Ragozin, Robinson, and Basham (1983) found that intimate support from a spouse proves to have the most general positive effect, although community and friendship support appeared valuable to maternal attitudes as well. In another investigation, maternal satisfaction with spousal support turned out to be the most significant predictor of a mother's attitude toward parenting (Belsky, 1984). Furthermore, Zur-Szpiro and Longfellow (1981) found that mothers who described their partners in more positive terms reported less parenting stress and felt less depressed. Therefore, it is important to emphasize that the husband's emotional support is important for facilitating wives in their roles as mothers throughout the transitional period, thus reducing parenting stress. A significant positive correlation between degree of husband's emotional support and the wife's level of reported parenting satisfaction was found in several studies (Feldman, 1971; Shereshefsky & Yarrow, 1973).

Coping with the Demands of Parenting

Although there is a great deal of controversy regarding whether the period of transition to parenthood represents a

crisis in the lives of the parents (e.g., Dyer, 1963; LeMasters, 1957), the more recent researchers in the field agree that transition to parenthood represents a stressful period of time in life associated with difficulties in adjustment for the entire family (Belsky, 1984; Belsky et al., 1983; Cowan & Cowan, 1987; Cowan et al., 1985). The transition to parenthood is characterized by increasing numbers of challenges for parents with disruption of the previously established behaviors and relationships. As stated previously, the major stresses that are associated with the transition period are the physical care of the infant and the effects of the infant on the family system. These are the need to reallocate the household responsibility and to manage the tension stemming from conflicting demands on a parent's time and attention.

The demands of caring for the new baby and the physical fatigue and exhaustion are the most frequent complaints made by new parents, especially mothers (Miller & Sollie, 1980; Russell, 1974). A number of studies have shown that the division of labor within couples follows a more traditional gender role pattern after following the birth of the first child regardless of the original distribution of household tasks, the couple's ideology, or work role decisions (Cowan & Cowan, 1987; Gottlieb & Pancer, 1988; Power & Parke, 1984).

It appears that a husband and wife experience the transition to parenthood in different ways. The wife

generally expresses a greater amount of stress during this transitional period than her husband probably due to her greater involvement and responsibility with caring for the child. She is also more likely than the father to put aside her work or study after giving birth to the child (Cowan & Cowan, 1988). Maternal social support, therefore, is crucial for the mothers. This review of social support will focus on maternal social support mainly.

In the period of transition to parenthood, social support is likely to function in the following ways: (a) emotional support which includes the expression of attachment and interpersonal acceptance an individual receives from others, (b) instrumental support which includes services and material resources that are extended by network members, and (c) cognitive guidance which includes advice, counsel, information about a particular situation or concern (Power & Parke, 1984). Each type of support can function to reduce parenting stress.

In the study done by Russell (1974), 78% of the new parents reported being bothered by the physical fatigue somewhat or very much. Leifer (1980) reported that more than two-thirds of the new mothers felt that parenthood was more stressful than they had expected due to feelings of being "burdened and tied down by the unrelieved responsibility" (p.81). The need for practical support, therefore, is great during this period. Crockenberg (1981) found that the adequacy of support provided by household and

community members was the best predictor of secure mother-infant attachment at 3 months postpartum.

The most frequent sources of support for childrearing information and guidance come from professionals, TV, film, books, and a mother's parents. Cook and Ballenski (1981) found that a mother's parents played the most important role in influencing her parenting practices and attitudes. Abernethy (1973), in a study of social network and maternal roles, found that the single best predictor of maternal confidence was the frequency of contact between a new mother and her own mother.

Although parents' counsel is an important source of support, it would be inappropriate to assume that advice from extended family is always supportive to the new parents. In fact, Alpert et al. (1983) noted interference from in-laws related to a child as one of the most stressful events associated with the onset of parenthood. This was especially the case when expectations are inconsistent or contrary to one's own inclinations.

The realities of caring for the new infant may cause a considerable amount of stress for the parents in adjusting to the role of parents. Crnic et al. (1983) studied attitudes toward parenting and mother-infant interaction in relation to maternal stress and social support. Support received from intimates had the greatest amount of impact on maternal life satisfaction and quality of mother-infant interaction. Social support, therefore, may condition more

positive attitudes toward parenting and relieve feelings of stress.

Baby's Impact on Social Support Network

The fact of having a baby will have tremendous impact on the social support network. The transition shifts the structure and composition of the social network. Belsky (1984) measured new parent's social contacts during the third trimester of pregnancy and shortly after the birth of the baby as well as when the baby was several months old. During the postpartum period, he found an increase of contact with other parents of young children and with family members. McCannell (1987) found a decrease in maternal network size from a mean of 16.6 members during pregnancy to 13.5 one year after the birth. A significant increase in contact with other parents was also found in the study. Therefore, the period of transition to parenthood represents a transition of the social support network to a smaller and more homogenous group of people who share similar life experiences with the new mothers. The shared identity of parents among members of the network creates many opportunities to balance exchanges of emotional, instrumental, and cognitive guidance (Gottlieb & Pancer, 1988).

In conclusion, the research seems to suggest that the absolute amount of stress associated with the transition to parenthood is not the crisis maker, but rather, the balance between the stress and available support affects both

individual and family functioning. It seems reasonable to suggest that ongoing prebirth or postbirth stress that is not buffered by adequate social support could have cumulative negative effects on parents, young children, and the family as a whole. A great deal of research is needed in order to understand the ways in which networks and their supportive provisions change throughout the period of transition to parenthood. More attention is also needed to examine how social support is different for mothers and for fathers. Very little is known about the type of support a father needs in helping him move into the parent role. As pointed out by Gottlieb and Pancer (1988), if social support plays as important a role in the transition to parenthood as the research indicates, it is necessary to develop a deeper understanding of how social support systems influence and are influenced by the onset of parenthood.

Parental Child Development Knowledge

As suggested by Brooks (1991), realistic training in qualities and skills needed for parental roles in the United States is highly inadequate. According to Brooks, very few adults know basic child care practices until they are introduced to them in the last month of pregnancy as part of child birth preparation. Consequently, lack of knowledge and preparation make parenting more difficult and less satisfying than it otherwise would be. The lack of social

support, guidelines, and substitutes for the extended kin to assist in caring for young children, leaves parents with very little preparation for the parental role. It is not unusual to find some degree of crisis associated with parenthood. Therefore, it is reasonable to assume that some relevant child development knowledge may help to reduce the anxiety and stress that parents experience when they take up this very challenging new role. Unfortunately very few studies have focused on the relationship between the amount of parental child development knowledge and parents' experience in the period of transition to parenthood. Most of the studies were concentrated on the relationship between knowledge and parenting skills. Furthermore, the majority of the studies were done with low socioeconomic status mothers or teenage mothers. The generalization of the results, therefore, has to be challenged.

In the study done by Stevens (1984) with low SES mothers, relationship between parent's child development knowledge and home environment was examined by using the Knowledge of Environment Influence on Development Scale and the High Scope Knowledge of Early Infant Development (H/SED). The author found a significant relationship between H/SED and parenting skills.

In an attempt to include mothers from different SES backgrounds, Parks and Smeriglio (1986) explored the relationship among parenting knowledge, quality of home environment, and infant development performance in three SES

groups. The Infant Caregiving Inventory (ICI), the Home Scale, and Griffiths Scale were used to measure parenting knowledge, the home environment, and infant development. The only statistical significance was found in the low SES group. "Ceiling effect" was found in both of the Home and ICI Scales for middle and high SES mothers. Thus, the possibility of finding significant relationships between ICI and Home Scores was not possible. The authors concluded that SES was an important factor in the relationship between parent knowledge and providing an adequate home environment.

In another study, Kliman and Vakelich (1985) questioned both parents of first-born infants about their expectations for their infants. The parents were interviewed separately at their middle-class homes no later than one month after the birth of the child. The findings indicated that both parents' knowledge about their infant's behavior and growth was similar and there was a considerable body of knowledge that these parents did not possess. Fathers and mothers relied on different sources to obtain needed information. Mothers tended to rely on personal sources of information, while fathers tended to rely on information found in books or given by professionals. In contrast to the study done by Parks and Smeriglio (1986), findings of the study conducted by Kliman and Vakelich seem to suggest that middle-class parents lack child development knowledge. Middle-class mothers were not more prepared than their spouses. Further, the reliability of mothers' information sources should be of

future concern for people in the parent education field.

In order to find the extent of reading and characteristics of the people who read parenting primers, Clarke-Stewart (1978) found almost all parents read at least one parenting book. A substantial number of parents read at least five parenting books. The young, educated worried about parenting, and relatively isolated from their families, tended to read the most. However, according to these parents, readings seemed to have little to do with their actual behavior in caring for their children. Reading the books did not seem to increase their confidence and competence in parenting. Perhaps the books' information about child development knowledge was too abstract which made the application of the advice in the real life situation difficult.

The research in this area represents an understudied area. The studies do seem to suggest that in the low SES group, a relationship exists between knowledge and parenting skills in caring for young children. However, this relationship was not found in the middle-class and upper-class mothers. The instruments were developed to detect a significant amount of deficiency in knowledge, but were insensitive to the kinds of knowledge which middle- and upper-class parents lacked. This reflects the inadequate design of the instruments. Furthermore, middle- and upper-class parents tended to consult different information sources than their lower-class counterparts. However, the

inadequacy of the information and the inability to apply this information into real life situations seem to indicate that the current available information does not provide the support parents need in making these critical adjustments during the transition to parenthood.

Intervention Programs for New Parents

Traditionally, supporting adults as they become parents has been a primary responsibility of the family. When the immediate family could not meet the needs of members under stress, extended family or friends were called upon to lend support. Family itself then functions as a social support service.

The need for care beyond the family was the outcome of urbanization and industrialization. The move from rural to urban centers separated the family members from traditional sources of support as they faced the new exigencies of an industrialized society. Consequently, formal social service agencies were created to fill the void by providing the necessary support. Specific programs were developed to prepare couples for parenthood. In addition to the increasing needs of the new parents, the growth in family support programs was also a reflection of reduced federal commitment to family life. Traditional community social services are simply unable to meet the demands for services. Families, therefore, are forced to look for alternatives

other than the traditional bureaucracy. Consequently, various preventive intervention programs were developed (Duncan & Markman, 1988).

Programs that are designed to assist adults as they make the transition to parenthood fall along a wide range of activities, ranging from those with an educational bias at one end to those with therapeutic emphasis at the other. Only in the most recent years has attention in program delivery expanded from preparation for labor and delivery to the period of transition adults experience during the early years of child rearing (Duncan & Markman, 1988). Due to the purpose of this study, programs developed to aid parents in their period of transition to the parent role will be the focus of this review.

Although the programs' goals, objectives, and approaches vary in accordance with the field of interest, an implicit overarching goal of some programs can be found, i.e., to increase parental skills and competencies, thus to enhance child functioning, and to prevent problems. The notion of prevention has its origin in the public health domain and programs are developed to prevent problems by modifying the external conditions that cause problems or by helping people cope with these conditions by organizing resources so that optimal functioning can be facilitated (Duncan & Markman, 1988). Further, it implies a healthy nondeficient orientation which includes all individuals and families, not only families with specific problems. This

perspective acknowledges that the need for support is universal and the timing of support--before a problem occurs is critical (Kagan & Seitz, 1988).

Drawing from crisis theory, preventive programs have stressed the importance of intervening during milestone or transition periods, such as the period of transition to parenthood. Several researchers and authors have suggested that the period of initial adjustment to parenthood offers unique and crucial opportunity for intervention for family functioning (Duncan & Markman, 1988; Myers-Walls & Coward, 1979). The term crisis is translated into Chinese as a "dangerous opportunity." It is a time of change and formation of new pattern. Change can be made in both positive and negative directions. The goal of effective preventive intervention is to direct the change toward enhancing family strength and harmony. During the time of crisis, the stress is potentially high, new skills are often required and people are generally motivated. Motivation to participate in preventive programs is a key factor since people are more receptive to interventions. Furthermore, empirical evidence has revealed that the infant is a skilled and active partner in relationships, needing opportunity to learn from birth (Fang, 1981; Yarrow, 1979). With the widening body of information, parents' expectations for themselves are heightened. The desire to be more effective parents motivates some parents' involvement in the intervention program. For others, the process of transition

to parenthood produces stress and need for related support.

There is an increasing recognition that transition to parenthood is a married couple's experience. The work of Myers-Walls and Sudsberry (1982) was based on the idea that the birth of first child provides an opportune period for intervention with the goal of fostering positive adjustment to parenthood by the provision of information on early parenting. The Family Enrichment for New Parents (FENP) program was designed for couples to discuss problems, express satisfactions and fears, and solicit help and advice. The program is usually led by female and male co-leaders and covers nine sessions which focus on the acquisition of knowledge about child development, parenting, skills in communication, and use of time, energy, and other resources. Most participants were first-time parents, but others have been involved in the program following the birth of second and third children. Overall, participants have indicated increased self-confidence about themselves and their ability to care for an infant. The results have suggested that the program eased parents' adjustment to parenting a new child (Duncan & Markman, 1988).

The Becoming a Family Project developed by Cowan et al. (1985) and Cowan and Cowan (1987, 1988), as part of a longitudinal study of transition to parenthood represents a model of carefully designed postpartum intervention programs focused on marital relationships between couples. The study involved a random assignment of 96 couples to one of the

three experimental and control groups in order to rule out the effects of group participation and repeated measures. A fourth group of childless couples was also included in the study.

For the experimental group, an intervention program which focused on couple relationship was delivered to the couples during the last three months of pregnancy and first three months of new parenthood. Interviews and survey questionnaires were administered in late pregnancy and at 6 and 18 months postpartum. For the control group, the couples were interviewed and assessed at the same time without participating in the intervention. The third group of parents was interviewed but not assessed in late pregnancy due to the fact that assessments themselves would have an impact on the parent's experience of transition to parenthood (Cowan & Cowan, 1988). The childless couples were the final group of couples who also completed questionnaires and interviews and were followed at comparable intervals.

All of the families are continuing to be followed in order to assess the long-term effects of the intervention. The results at 6 months postpartum indicated all the couples in the experimental and control groups were more traditional in their household task division and were experiencing more marital conflict and disagreement than before they became parents. Furthermore, at 6 months postpartum, the experimental parents showed lower self-esteem and were

experiencing similar amount of marital dissatisfaction compared to the control couples. However, marital adjustment scores remained stable for the experimental group and declined for the control group. The experimental couples, however, showed a regain of marital satisfaction and self-esteem scores at the one year postpartum follow-up interview. For the nontreatment groups, lower self-esteem and marital satisfaction scores were found among mothers and fathers. Most striking findings were that none of the experimental couples had separated or divorced at one-year postpartum whereas 12.5% of the control couples had separated (Cowan & Cowan, 1988).

The important role played by fathers in child development has been gradually recognized by the researchers. Programs in which fathers can share and learn from one another are growing (Kagan & Seitz, 1988). Pasley, Ernst, and Gingles (1981) described a father-infant program that was designed to enable fathers to gain skills in promoting infant development, to assist fathers in developing awareness of materials, activities, and experiences suitable to their infants' current stage of development, and to provide resources and support for fathers through sharing experience with others in similar situations. The results showed that fathers spent significantly more time with their infants at the end of the 6-week program period than they did initially. They found the program helped in generating ideas of activities which

they could do with their infants. The results appeared to suggest that the participation in the program enhanced parent competency and certain aspects of infant development.

An attempt to investigate the impact of Lamaze training on fathers in the postpartum period was done by Wente and Crockenberg (1976). The authors found that preparation for childbirth classes had no demonstrable effect on fathers' concept of themselves, their adjustment to parenthood, or interaction with their infants. However, participation in child birth classes was related to their evaluation of marital relationship (Markman & Kadushin, 1986; Wandersman, Wandersman, & Kahn, 1980). When examining studies, one needs to consider whether the intervention programs and preparation of child birth are designed to prepare parents for parenting. It is inappropriate to expect child birth preparation to have an effect on parenting skills and adjustment (Duncan & Markman, 1988). Still, participating in child birth preparation classes can be beneficial to fathers (Wente & Crockenberg). Even the unprepared fathers who attended the child birth classes reported more positively on the birth of the child and marital relationships than the nonattenders. Fathers who have attended the Lamaze classes reported the greatest level of positive effects. All the fathers suggested that the need for information on parenthood went beyond what was typically offered by Lamaze classes.

Much more information is needed before one can draw any conclusion regarding the impact of training on fatherhood. From the research available, it appears that programs that encourage greater involvement of fathers in child development increase men's sensitivity to the realities of caring for the young infant over an extended period of time. Such an increase of sensitivity may result in more empathy, understanding, and supportive behavior between spouses, which, in turn, will enhance family relationships and harmony.

Despite the fact that preventive intervention programs during the transition to parenthood vary in many aspects, the results have strongly suggested that intervention during this transitional period has significant potential to benefit family members. Much more information is needed in terms of timing, targeting, and the specific objectives of programs. Furthermore, more attention needs to be paid to the influence of intervention on the marital relationship, the social support network, and the role of father. A more ecological approach in the program orientation and design is needed. Also, the need for program developers to collaborate with researchers is extremely important so that work of each group can be enriched and refined by the efforts of the other (Myers-Walls and Sudsberry, 1982).

Family Infant Toddler Learning Program (FITL)

The Family Infant Toddler Learning Program was developed partially based on the ideas of the Infant Toddler

Learning Program proposed by Badger at the University of Cincinnati in the early 1980s (Badger & Goldman, 1987). In response to the growing demands of no-risk, middle-class families for intervention/support programs following the birth of their first child, Phenice, Whiren, and Williams in the Department of Family and Child Ecology were the first ones to initiate the program ideas at the Michigan State University. The program is based on the belief that the transition to parenthood symbolizes a time of greater flexibility and openness to new information and also is a time when parents need extensive support in order to deal with various new challenges in the family. The program is very unique due to its ecological approach with the emphasis in supporting the individual parent, the child, the couple, the parent-child relationship, and the family as a whole.

Williams developed the entire curriculum series for the FITL program. In 1986, Williams took charge of the program and received a three-year grant from the Kellogg Foundation. The research component of the program was carried out by Bristol who was appointed as the program research coordinator. During the period of 1986 to 1989, the investigator served as a teacher and research assistant of the FITL program. Subsequently, a paper was presented with the designers of the program at the NCFR Conference (1990) by the author. The three-year grant ended in 1990 and, since then, the FITL program has become a part of the Department's program of Child Development Laboratories.

The FITL program attempts to accomplish the long term goals of maintaining a high level of interpersonal relationship satisfaction, enhancing optimal child functioning, fostering meaningful parent-child relationships, decreasing parenting stress, and facilitating supportive and healthy family relationships. Specific short term goals are as follows:

1. To enable parents to gain skills in promoting all aspects of their infant's development.
2. To assist parents in developing an awareness of materials, activities, and experiences suitable to their own infant's current stage of development.
3. To provide resources and support for parents who are going through similar experiences.
4. To foster marital support and cooperation in the couple relationships.
5. To increase the understanding and acceptance of the new infant.
6. To gain support during the transition to parenthood period.

The assumptions of the FITL programs are summarized below:

1. The FITL program recognizes the period of transition to parenthood is an extremely complex and demanding process. Families need support in order to cope effectively with the stress associated with the transition period. Further, the FITL program recognizes that

experienced parents also need help. The FITL program is designed for all parents with infants 3 months to 3 years of age, not just for first-time parents.

2. The FITL program offers early and continuing support for families and organizes resources for the optimal functioning of the family to prevent dysfunction. The FITL program seeks ways to strengthen each component of the family system internally, as well as externally.

3. The FITL program recognizes the crucial importance of peer support that parents give to and receive from each other based on the common experience of parenthood.

4. The FITL program recognizes the importance of parent education for the purpose of assisting parents in their childrearing role. Information on child development and parenting issues is provided.

5. The FITL program recognizes the fact that exclusive focus on either individual or one's immediate environment will not produce effective helping.

6. The FITL program emphasizes that parents are basically in control of and responsible for their children's learning and for their own learning individually and in the group setting.

7. The FITL program recognizes that there are many ways to parent.

8. The FITL program emphasizes that the role of the teacher is to provide information to facilitate discussions and structured learning activities and foster a supportive

environment for child-parent dyads or child-parents triads in order to maximize the potential learning.

General program design. The FITL program is an ongoing postpartum educational program which involves parents and their child (ages from 3 months to 3 years of age) in a small group play situation. Families are grouped according to the age of their child. Each class group may have a variance of 2 to 3 months in the age of the children. This program incorporates elements of parenting education, parent support, information resources, and networking. The FITL program consists of six, moderately-structured sessions. The six-weekly sessions are offered in various time slots throughout the day and week in order to encourage maximum family participation. Throughout each session, skill enhancement techniques are demonstrated and practiced. A mutual joyful parent-child interaction through play activities that enhance children's skills in movement, language, and social interaction is created in a supportive, educational environment (Williams, Bristor, & Fang, 1990).

A typical session includes eight children, their parents, the classroom teacher and a teaching assistant. In the two-hour FITL session, the program includes the following events:

1. Warm-up--A time for children and parents to adapt to others in the room as they are arriving. Activities revolve around sensory and motor activities.

2. Directed activities--The teacher demonstrates a toy or activity to parents. The parents then guide their child in using the toy or activity.

3. Self-selected activities--Children choose activities from a wide range of materials available to them and parents engage in the activities with their child.

4. Story/songs--Age appropriate selections are used as a closing activity for each session.

5. Parental concerns/questions--Parents share concerns and questions with the rest of the group while children play. Information on community resources and upcoming community events is provided.

Evaluation of the FITL program. The evaluation of the FITL program is done through a pretest and postassessment in order to measure the impact of the FITL program on (a) marital relationship which is measured by the Dyadic Adjustment Scale (Spanier, 1976), (b) maternal social support which is measured by the Maternal Social Support Index (Pascoe, 1982), (c) parental knowledge of child development which is measured by the Parental Knowledge of Child Development (Bristor & Williams, 1988), and (d) parenting stress which is measured by Parenting Stress Index (Abidin, 1986). Detailed description of the instruments and procedure will be provided in Chapter 3.

Both the preassessment and postassessment data were collected during 1988 and 1989 by the program personnel. The preassessment data consisted of 76 families whereas the

postassessment data were collected from 20 mothers and 16 fathers. The preliminary data analysis was carried out for the preassessment only (Williams et al., 1990). By using the one-way analysis of variance, findings of the preliminary analysis indicated that mothers in general experienced more parenting stress than fathers. More specifically, full-time homemakers and their spouses reported the greatest amount of parenting stress. Part-time working mothers and their spouses reported the lowest parenting stress. In addition, working mothers reported higher level of parenting stress related to parental health factors ($F = 5.5219$, $p < .05$).

In terms of the amount of child development knowledge possessed by parents, the results indicated that neither parent showed extensive child development knowledge. However, mothers possessed significantly greater amount of child development knowledge than fathers ($t = 3.6$, $p < .01$). Further, full-time homemakers and their spouses reported the greatest amount of child development knowledge, followed by part-time working mothers and their spouses. Full-time working mothers and their spouses reported the least amount of child development knowledge.

As far as maternal social support is concerned, younger mothers consistently received more household help ($F = 3.4342$, $p < .05$) and more help from relatives than older mothers ($F = 5.1356$, $p < .01$). The more educated mothers tended to have a higher level of community involvement than

the less educated mothers ($F = 5.6713$, $p < .01$). Part-time working mothers reported a greater amount of social support than full-time homemakers and full-time working mothers ($F = 4.03$, $p < .05$).

Maternal work status was found to be a significant factor in determining the degree of marital adjustment for both mothers and fathers. Part-time working mothers reported the highest degree of marital adjustment, followed by homemakers; the full-time working mothers reported the lowest degree of marital adjustment ($F = 3.11$, $p < .05$). Fathers of part-time working mothers also reported the highest degree of marital adjustment, followed by fathers of full-time homemakers; fathers of full-time working mothers reported the lowest degree of marital adjustment ($F = 4.86$, $P < .05$). Further analysis of the data will be carried out in order to determine the relationship between various variables and parental stress. In addition, efforts will be made in order to the effectiveness of the FITL program on the participating families in coping with stress during period of transition to parenthood.

Summary

A review of the relevant literature indicates the importance of resource variables in a family's adaptation to the stressful event of parenthood. Most of the studies focused on only one aspect of the period of transition to

parenthood and most investigators relied on one single global index to study the phenomenon. This strategy assumes that transition to parenthood is a unidirectional construct. In the present study, the period of transition to parenthood is viewed as multidimensional. The stress parents experience during this transitional period can be handled using all the resources available to the family. By looking at the period of transition to parenthood from an ecological perspective, one can begin to understand the factors that make the family less vulnerable to stress and strong enough to withstand the impact of stress. By understanding what is going on in families, families can be served more effectively during this very difficult period. In his call for taking an ecological perspective of the family, Bronfenbrenner (1979) argues that a multilevel analysis is necessary to account for the development of both psychopathology and competence in its members. Judging from the literature, this represents a significant and yet under researched area. A need for much more elaborate research focusing on the ways families are coping with the period of transition to parenthood is strongly suggested.

CHAPTER III

METHODOLOGY

This chapter presents a description of the research design including sampling procedure and data collection, the measurement instruments, and the statistical methods.

Research Design

The foci of the study were: (a) to explore the relationship between the selected resource variables, i.e., marital adjustment, social support, and the amount of child development knowledge and the outcome variable, i.e., levels of parenting stress; (b) to examine the differences of the resource variables and outcome variable between pretest and posttest; (c) to determine the ways resource variables were associated with parenting stress in mothers and fathers; and (d) to formulate a conceptual model for the FITL Program.

The unit of analysis was the individual parent's response to various self-administered questionnaires in the beginning and at the end of the FITL experience.

Sample

Brochures of the FITL program were sent to families according to the birth announcements in a local newspaper. Additional brochures were distributed in various pediatric offices in the community. In order to attract the student and faculty population at Michigan State University, announcements of various FITL activities were made in campus newspapers and local radio stations.

Upon enrollment in the program, which involved a fee of 90 dollars, families were given a consent form indicating their permission to participate in the research prior to the program and data collection. From 1988 to 1989, 76 intact families agreed to participate in the research. Tables 3.1 and 3.2 reflect the demographic characteristics of the sample population. (For details of the FITL program please refer to Chapter 2).

The population of parents can be described as middle-class and well-educated. Among the 69 families on which demographic data were collected by the program personnel, 89.1% were first-time parents and 10.9% were second and third-time parents (Table 3.2). A high percentage of the parents (94%) have attended prenatal classes. Almost half of the mothers included in the study (47.46%) worked outside their homes and 16.4% of the mothers worked full-time (Table 3.2). The majority of families said they joined the program because the FITL program provided learning and social opportunities for both

parents and their children together. Families with children age 7 to 10 months of age and from 14 to 30 months were more likely to enroll in the FITL program. The mean age of children enrolled in the FITL program was 16.9 months (Table 3.1).

Table 3.1 Demographic Characteristics of Sample

Variable	Mean	Range	N
AGE			
Mothers	32.4	25-41	73
Fathers	34.5	26-55	60
Children	16.9 months	3-36 months	76
EDUCATION			
Mothers	17.6	Grade 9-Ph.D.	73
Fathers	18.2	Grade 9-Ph.D.	60

Table 3.2 Maternal Work Status and Parental Status

Variable	Percentage	N
MATERNAL WORK STATUS		
Full-time homemaker	52.54	31
Part-time employed	31.06	18
Full-time employed	16.40	10
Missing Data		10
PARENTAL STATUS		
First-time parent	89.10	48
2nd- and 3rd-time	10.90	6
Missing Data		15

Data Collection

When a family expressed its willingness to participate in the study, separate packets of questionnaires for the father and mother along with a cover letter (Appendix A) were given to each family at the first session. The parents were asked to fill out the questionnaires separately and seal them in the individual envelopes provided to them. The completed materials were returned to the program personnel at the second session. At the sixth session, the posttest which consisted of the same assessments as the pretest was given to the mother and father separately along with a stamped self-addressed return envelope.

The return rate for the postdata was low; only 20 mothers and 16 fathers returned the postassessment. One month later, follow-up telephone calls were made by the program personnel to the families to remind parents to send back the postquestionnaires. Many families had moved or simply chose not to respond to the questionnaires a second time.

Instruments

Each parent completed various measurements in both the preassessment and postassessment. The four domain assessments which focused on marital relationship, maternal social support, amount of parental child development knowledge, and parenting stress are described.

The Dyadic Adjustment Scale (MTAJ). The Dyadic Adjustment Scale (Appendix B) contains 32 Likert format

items and was designed by Spanier (1976). The MTAJ measures overall dyadic adjustment. The MTAJ demonstrates the multidimensionality of dyadic relationships through its four subscales: Satisfaction which measures the degree of happiness and harmony in the relationship; Consensus which includes items such as agreement about goals in life, decision making and spending time together; Cohesion which refers to the opportunity for discussing and exchanging ideas, working together as a couple; Affectional expression which refers to the degree of affection each partner expresses toward the other. The unit of analysis of the scale is individual adjustment to the relationship.

The MTAJ is scored and analyzed in the following manner: the majority of items are scored on a scale from 0 to 5, or from 0 to 4; a score of 0 indicates poor adjustment in the relationship and a score of 4 or 5 indicates good adjustment in the relationship. Two items have a scale from 0 to 1; a score of 0 indicates poor adjustment and a score of 1 indicates good adjustment. A total MTAJ score is obtained by adding all item scores. As a result, the range of total MTAJ scores is from 0 to 151.

This self-administered paper and pencil measure can be completed easily in 5 to 7 minutes. The MTAJ has demonstrated highly acceptable construct validity. The correlation of .86 was established between MTAJ and another frequently used marital scale--Locke-Wallace Marital Adjustment Scale (1959). An alpha coefficient of .96 was

found in the total scale and its components, therefore, the high reliability has justified the use of the MTAJ.

Maternal Social Support Index (MSSI). To gather data concerning the mothers' evaluation of the amount of social support they received involved the administration of Maternal Social Support Index (MSSI) (Pascoe, 1982) to all participating mothers (Appendix C). The MSSI was developed as an assessment to be used for clinical research or for obtaining a structural assessment of maternal social support. On the 21-item instrument, mothers were asked to indicate the extent of perceived support they received from a spouse, relatives, neighbors, friends, and the community. The MSSI is a self-administered paper and pencil questionnaire. It takes about 3 to 5 minutes to complete.

Items from 1 to 11 on the MSSI measure the instrumental aspect of social support. The respondent selects a response from a range of choices for each item. The responses are on a two point scale. A score of 0 represents no support is received and a score of 1 represents some kind of support is received in a particular situation. Items 12 to 14 measure the size of the social support by number of people who perceived in the network. A possible range of scores is from 0 which indicates no person is in the network to 6 which refers to 6 and more people are in the network. Items 16 to 18 measure the communication aspects of the social support. A range of scores of 0 to 4 is possible. A score of 0 indicates there is no or poor intimate relationship for

the mother. A score of 4 indicates a sound relationship with the intimate partner. Items 19 to 21 measure the maternal external community involvement. These items are scored on a scale from 0 to 3; a score of 0 indicates no external community involvement and a score of 3 suggests maximum community involvement. The total MSSI score is obtained by adding all item scores together. A range of scores is from 0 to 39.

Parental Knowledge of Child Development (PKD). All parents completed the PKD (Appendix D). The PKD was developed by the FITL program personnel (Bristor & Williams, 1988). The purpose of PKD is to measure the amount of child development knowledge each parent shows by responding to the 17 open ended questions. The questions are designed to test a parent's knowledge of the ages when average children achieve certain major developmental milestones.

A parent's response which falls within the correct age range of a particular development receives a score of 1. A parent's response which falls outside of the correct age range of a particular development is scored 0. The responses are judged by the information given by several child development textbooks (e.g., Rosenblith & Sims-knight, 1985; Smart & Smart, 1982). The total PKD score is achieved by adding all the item scores. A possible range of scores runs from 0 to 17.

Parenting Stress Index (PSI). The PSI was completed by all parents. The PSI was developed by Abidin (1986) for the

purpose of measuring stress in the parenting system by assessing many facets of the parent-child system (Appendix E). As pointed out by the author, parenting stress during the first 3 years of the child's life is critical in relation to the child's emotional and behavioral development and to the development of the parent-child relationship.

The PSI is comprised by 120 Likert type items which include three different domains: child characteristics, parent characteristics, and life stress events. The child characteristic domain has 47 items and is categorized into six subscales. It is not designed to measure temperament, however, it includes items which measure parent's perception of the impact of a given temperamental quality on the parent as well as on the child behavioral referent. A parent's perception of children's characteristics is the major component of the child characteristic domain. The second and third parts of the PSI are the 54-item parent characteristic domain which is categorized into seven subscales and the 19-item life stress events. The life stress scale is optional (Abidin, 1986), therefore, was not included in the data analysis of the current study. The parent domain and life stress scale include the identification of certain parent characteristics and family context variables which are believed to influence the parent's ability to respond effectively to the child.

The respondent selects and circles a response from a range of responses for each item. The responses on a five

point Likert scale are: strongly agree, agree, not sure, disagree, strongly disagree. Responses correspond to the score of 5,4,3,2,1 points respectively. A score of 1 represents the least stress perceived by parent; a score of 5 connotes the most stress perceived by parent. On the life stress scale, the respondent circles the events that one or one's immediate family has experienced in the last 12 months. A score of 1 on life stress scale indicates stress and a score of 0 represents no stress experienced. The total PSI score is obtained by adding the domain scores. The domain score is obtained by adding the weights of the answer selected.

The PSI is a self-administered, paper and pencil questionnaire. It takes about 20 to 25 minutes to complete. The content validity of PSI was established by (a) pilot testing, (b) a panel of six professionals in the area of early parent-child relationships rated each item for relevance of content, and (c) field testing. Ninety-five percent of the items were directly related to at least one research study providing evidence for the importance of the attribute measured by the item as a stressor for parents of young children (Abidin, 1986).

The highly acceptable alpha reliability coefficients range in magnitude from .62 to .70 for the child domain subscale and from .55 to .80 for the parent domain subscale. The reliability coefficient for the life stress score on the PSI is .95.

The PSI has been used in the study of transition to parenthood (Awalt, 1981). Marital satisfaction was significantly related to parenting stress after childbirth as measured by the PSI. Further, Awalt reported that a measure of parental role satisfaction following the birth of the child was significantly correlated to PSI scores: .53 ($p < .01$) for women and .36 ($p < .10$) for men.

Analysis of Data

The statistical methods utilized in the present study are presented in this section. Table 3.3 presents an overview of the hypotheses tested, the data used, and statistical approach selected.

One-way analysis of variance (ANOVA) was used in order to determine whether the different levels of parenting stress groups differ significantly among themselves in terms of the ways they utilize the resources (MTAJ, MSSSI, PKD). ANOVA was used to compare mothers' and fathers' responses to each domain of the measurement, in order to determine if mothers and fathers experienced the period of transition to parenthood differently. Paired t-test was used to match mother's and father's responses together in order to detect within-family differences between wife and husband. Two-tailed t-test was applied to investigate the effectiveness of the FITL experience by comparing the parents' responses before and after the FITL experience.

Table 3.3 Summary of Statistical Procedures

Hypothesis	Data used	Statistic
Preintervention	Pretest	ANOVA
Test of hypotheses 1-3	Mothers' responses on (a) MTAJ, (b) MSSSI for mothers, (c) PKD, and (d) PSI	
4 (test of conceptual model at preintervention stage for mothers) 5-6	same as above Pre-test of fathers' responses on a,c,d same as above	Multiple regression ANOVA
7 (test of conceptual model at preintervention stage for fathers) 8-9	same as above mothers' and fathers' responses on a,b,c,d	Multiple regression ANOVA
10-11		Multiple regression
Mothers vs Fathers 12-14	same as above	ANOVA
Postintervention Phase Mothers vs. Fathers 15-17	same as above	ANOVA Paired t-test
Pretest vs Posttest 18-21	Mothers' responses on a,b,c,d posttest	t-test
22-24	Fathers' responses on a,c,d	t-test
25-27	Couples' responses on a,c,d	t-test
Test of conceptual model at post FITL stage 28-32	Mothers' and Fathers' responses on a,b,c,d posttest	path analysis

Multiple regression was used in order to evaluate the relationship between the resource variables and the outcome variable (PSI) as the evaluation of the conceptual model before the FITL experience. Multiple regression is a multivariate technique, it provides estimates both of the magnitude and statistical significance of relationships

among various variables (Borg & Gall, 1983). Finally, path analysis was performed to test the validity of the hypothesized causal relationships between the resource and the outcome variables outlined in the conceptual model for the post FITL experience.

The present investigator recognized the problems that were associated with the use of parametric statistical analysis with small sample size. However, the parametric statistical approach was chosen due to the following reasons:

1. The results of the present study are used to describe the individuals and families who participated in the study. No attempt is made to apply the findings of the study to the general population.

2. Generally speaking, nonparametric statistics are less powerful, that is they require large samples in order to yield the same level of significance as the parametric statistics.

3. With the problems associated in the current study, suitable nonparametric tests are not available.

4. The majority of the measurements made by the present study were continuous scores and based on standardized instruments. As pointed out by Borg and Gall (1983) that moderate departure from the theoretical assumptions of the parametric statistics has very little effect upon the value of the parametric technique.

According to Borg and Gall, even if the assumptions of

normal distribution and variance homogeneity are violated, it is still advisable to use the parametric statistics.

Limitations

The present investigator acknowledges several major limitations inherent in the study by doing the secondary analysis. First of all, they relate to the design of the original study. The data were collected from a small group of families who participated in the FITL program. All respondents were from intact families and were well educated and older first time parents. Therefore this study included a homogenous group of parents. Further design should be more representative of a heterogenous population. It is possible that there are some systematic differences between parents who choose to postpone parenthood until an older age and choose to participate in the FITL program and those who do not. The generalizability of the research, therefore, is limited to families who have similar characteristics to those participating in the study. Secondly, the study was conducted within a very short period of time. The 6 week follow up used in the posttest of the present study may not have been adequate to assess the full impact of the FITL program. The long term effect of the FITL program, therefore, can not be speculated upon. Finally, the results of this study do not provide any insight into the effect of the FITL program on children.

Additional limitations are related to the measurement issue. The use of a newly developed instrument to assess the amount of parental child development knowledge without adequate information on validity and reliability of the instrument created a limiting factor to ascertain the importance of these findings for future research and theory building in the area. Furthermore, the questions included in the Parental Knowledge of Child Development instrument did not reflect the type of parenting knowledge that is conceptualized in the current research. Because of the lack of availability of an adequate instrument to measure parental child development knowledge and the data collected did not include appropriate findings for analysis and this presents a serious methodological problem in this research.

CHAPTER IV

RESULTS

A large number of hypotheses based on theoretical grounds and previous empirical findings were presented in Chapter 3. This chapter summarizes the major findings in relationship to the research hypotheses. Analyses relative to each hypothesis are presented in ascending order. An evaluation of the conceptual model will also be reported. Statistical Package for Social Science (SPSS) was used as the tool to investigate the results. A probability level of .05 was considered statistically significant. The results are divided into four different sections, namely, the preintervention phase, the postintervention phase, the comparison of pre- and postintervention phases, and the evaluation of the conceptual model.

Preintervention Phase

In the preintervention phase, data were analyzed first by gender. An attempt was also made to examine the effect of combining mothers' and fathers' responses. Comparisons between mothers' responses and fathers' responses were

made. The data were analyzed separately in correspondence with the hypotheses.

Mothers

Mothers' responses to each of the measurements were closely investigated. Impact of different levels of parenting stress on the various resource variables was first examined, followed by the study of the relationship between the resource variables, i.e., maternal social support, parental child development knowledge, marital adjustment and the outcome variable, i.e., parenting stress. In addition, the maternal outcome variable was examined in relation to the combination of mothers' and fathers' responses to resource variables. Finally, the relationships between resource variables and outcome variable for mothers with high levels of parenting stress and mothers with low levels of parenting stress were reported. The levels of parenting stress were determined by taking the top and bottom 15% of the mothers' scores on the Parenting Stress Index (PSI) excluding the extreme high and low scores.

Hypothesis 1. There will be no difference in marital adjustment scores between mothers with high levels of parenting stress and mothers with low levels of parenting stress. Results of ANOVA comparing the mean levels of the Dyadic Adjustment Scale (MTAJ) of mothers with high levels of parenting stress and mothers with low levels of parenting stress are shown in Table 4.1. Mothers with high parenting stress levels reported significantly lower marital

adjustment scores than mothers with low levels of parenting stress ($F = 10.33$, $p < .01$). High stress mothers also scored consistently lower than the low stress mothers on the subscales of Dyadic Adjustment, i.e., Cohesion ($F = 9.49$, $p < .01$), Consensus ($F = 5.54$, $p < .05$), Satisfaction ($F = 10.51$, $p < .01$), and Affection ($F = 7.47$, $p < .05$). The null hypothesis therefore, was rejected. The results suggested that there were significant differences in marital adjustment scores between mothers with high parenting stress and mothers with low parenting stress.

Table 4.1 Mothers' Responses to Resource Variables by Parenting Stress Level (Means, SD, F Values, and Significance Levels)

Resource Variable	Mothers' Parenting Stress Level					
	High		Low		F	p
	M	SD	M	SD		
Dyadic Adjustment	104.42	16.13	122.30	7.54	10.33	0.0043**
Cohesion	14.33	3.50	18.30	2.16	9.49	0.0059**
Consensus	45.50	6.30	50.90	3.90	5.54	0.0289*
Satisfaction	37.00	5.51	43.50	3.41	10.51	0.0041**
Affection	7.58	1.78	9.60	1.65	7.47	0.0128*
MSSI ^a	22.36	5.90	29.60	4.43	10.69	0.0035**
PKD ^b	9.78	4.87	12.30	2.11	2.23	0.1536

* $p < .05$. ** $p < .01$.

^aPKD refers to Parental Knowledge of Child Development. ^bMSSI refers to Maternal Social Support.

Hypothesis 2. There will be no difference in maternal social support between mothers with high levels of parenting stress and mothers with low levels of parenting stress. In order to test the hypothesis, ANOVA was applied to compare the means of Maternal Social Support (MSSI) of mothers with

high levels of parenting stress and mothers with low levels of parenting stress.

Table 4.1 shows that mothers with low levels of parenting stress reported significantly higher amount of maternal social support than mothers with high levels of parenting stress ($F = 10.69, p < .01$). The null hypothesis that mothers would report similar amount of maternal social support regardless of their levels of parenting stress was not supported from the findings. That is, there was a significant difference in maternal social support between mothers with high levels of parenting stress and mothers with low levels of parenting stress.

Hypothesis 3: There will be no difference in the amount of child development knowledge between mothers with high levels of parenting stress and mothers with low levels of parenting stress. ANOVA was used to test the difference in the amount of child development knowledge as reported by mothers with high parenting stress and mothers with low parenting stress on the Parental Knowledge of Child Development (PKD). Slightly higher amount of child development knowledge was found in mothers with low levels of parenting stress than mothers with high levels of parenting stress as indicated in Table 4.1. However, the results were not significantly different ($F = 2.23, p < .20$). The findings of ANOVA did not provide strong evidence to reject the null hypothesis.

Hypothesis 4. There will be no relationship between the resources variables, i.e., marital adjustment, maternal social support, and amount of child development knowledge and the outcome variable, i.e., parenting stress for mothers. Analysis of multiple regression was used to test the relationship between the resource variables, and the outcome variable for mothers. Three resource variables were the independent variables: maternal social support, child development knowledge, and marital adjustment. The dependent variable was the amount of parenting stress for mothers. Significant relationship was found between the independent and the dependent variables ($F = 4.507$, $p < .01$). Therefore, the null hypothesis was rejected. Furthermore, Table 4.2 shows that 23% of the variance of the PSI for mothers was explained by MSSSI ($\beta = -.322$, $p < .05$). Maternal social support was predictive of parenting stress for mothers. Low maternal social support was significantly related to high parenting stress. Therefore, there was an inverse linear relationship between the MSSSI and the PSI for mothers. The null hypothesis was rejected. That is, there was a significant relationship between the resource variables and maternal parenting stress.

It is believed that mothers' and fathers' responses are correlated in reality. It is almost impossible to examine mothers' and fathers' responses as separate entities. In order to examine the relationship of resource variables with the outcome variable for mothers, one also needs to take

Table 4.2 Multiple Regression Analysis of Resource Variables and Outcome Variable for Mothers

Variable	b	SE	β	T	Sig.T
MTAJ ^a	-.638	.345	-.254	-1.847	.0714
MSSI	-1.794	.788	-.322	-2.276	.0278*
PKD	-.555	1.099	-.068	-.505	.6162
Constant	340.081				
R ²	.235				

*p < .05.

^aMTAJ refers to Dyadic Adjustment Scale.

fathers' responses to the resource variables into consideration. Regression analysis was done to investigate the relationship of maternal parenting stress with both mothers' and fathers' responses to the resource variables. Significant relationship was found between the independent variables and the dependent variable ($F = 7.89$, $p < .01$). Table 4.3 shows that 43% of the variance of the maternal parenting stress was explained by the combination of both fathers' and mothers' responses to the various resource variables. Contrary to what was found in the previous regression analysis, the most significant variables that were predictive of maternal parenting stress when both mothers' and fathers' responses were taken into consideration were paternal marital adjustment ($\beta = -.529$, $p < .05$) and maternal marital adjustment ($\beta = -.467$, $p < .05$). Low maternal and low paternal marital adjustment were significantly related to high maternal parenting stress. Maternal social support was not a significant variable ($\beta = -.327$, $p < .10$) in relation to maternal parenting stress in this analysis as was found in the previous analysis.

Table 4.3 Regression Analysis of Outcome Variable in Relation to Fathers' and Mothers' Responses to Resource Variables for Mothers

Variable	b	SE	β	T	Sig.T
MMTAJ ^a	-1.29	.560	-.467	-2.304	.0286*
MMSSI ^b	-1.71	.903	-.327	-1.896	.0679
MPKD ^c	-2.36	1.667	-.265	-1.414	.1681
FMTAJ ^d	1.44	.560	-.529	-2.570	.0156*
FPKD ^e	1.30	2.167	-.114	-.600	.5532
FPSI ^f	.28	.189	.249	1.494	.1460
Constant	200.54				
R ²	.43				

*p < .05.

^aMTAJ refers to maternal Dyadic Adjustment Scale. ^bMSSI refers to Maternal Social Support Index. ^cMPKD refers to maternal Parental Knowledge of Child Development. ^dFMTAJ refers paternal Dyadic Adjustment Scale. ^eFPKD refers to paternal Parental Knowledge of Child Development. ^fFPSI refers to paternal Parenting Stress Index.

Multiple regression was performed in order to study the relationship of the resource variables i.e., maternal social support, marital adjustment, child development knowledge and the outcome variable, i.e., mothers with low levels of parenting stress. It was believed that perhaps mothers with low stress were able to use the resources differently than mothers with high stress in combating parenting stress. However, the results of multiple regression did not show evidence to support this belief. Eighty-five percent of the variance in maternal parenting stress was found to be explained by the combination of the various resource variables; however, the relationship between the resource variables and the outcome variable was not significant ($F = 3.53$, $p < .20$). Similar analysis was used for mothers with high stress. Again, the relationship was found to be insignificant ($F = 1.83$, $p < .30$). That is, the

resource variables did not appear to predict either very high or very low levels of maternal parenting stress.

In general, these results provided strong evidence to support the notion that the levels of parenting stress were a significant factor in influencing mothers' responses to the resource variables, i.e., maternal social support, child development knowledge, and marital adjustment. Generally speaking, where results were statistically significant, a greater degree of marital adjustment, child development knowledge, and maternal social support were associated with lower levels of parenting stress. When the relationship between resource variables and the outcome variable on mothers' responses alone was examined, maternal social support was found to be a significant factor impacting on maternal parenting stress. However, when both fathers' and mothers' responses were taken into consideration together in influencing maternal parenting stress, it was found that both fathers' and mothers' perceptions of marital adjustment were the most significant factors in predicting maternal parenting stress. When levels of maternal parenting stress were controlled, no significant relationship between resource variables and outcome variable was found.

Fathers

In this section, fathers' responses to the various measurements were more closely examined. It is believed that fathers experience the transition to parenthood differently than mothers. In the following section, impact

of different levels of parenting stress on the various resource variables is first reported. The relationship between the resource variables, i.e., parental child development knowledge and marital adjustment, and the outcome variable, i.e., parenting stress for the fathers, was also examined. Then the paternal outcome variable, was investigated in relation to the combination of mothers' and fathers' responses to resource variables. The relationships between resource variables and the outcome variable for fathers with high parenting stress and with low parenting stress scores were also studied. High and low levels of parenting stress referred to in the following hypotheses were determined by taking the participating fathers' top and bottom 15% of the scores on the Parenting Stress Index (PSI) excluding the extreme high and low scores on the PSI.

Hypothesis 5. There will be no difference in marital adjustment scores between fathers with high levels of parenting stress and fathers with low levels of parenting stress. Results of ANOVA comparing the mean levels of the Dyadic Adjustment Scale of fathers with high levels of parenting stress and fathers with low levels of parenting stress are shown in Table 4.4. On the average, high parenting stress fathers reported significantly lower marital adjustment than the low parenting stress fathers on the overall Dyadic Adjustment Scale ($F = 27.38, p < .01$) as well as on all but one of the subscales of Dyadic Adjustment, i.e., Consensus ($F = 21.33, p < .001$),

Satisfaction ($F = 23.73$, $p < .001$), and Affection ($F = 18.01$, $p < .01$). The only subscale on which significant difference between high parenting stress fathers and low parenting stress fathers was not found was Cohesion ($F = 3.63$, $p < .10$). The null hypothesis, therefore, was rejected. In general, the high parenting stress fathers tended to be less agreeable and less happy about their marital relationship, and less likely to show affection to their spouses than their low parenting stress counterparts. Fathers with high marital adjustment scores showed less parenting stress.

Table 4.4 Fathers' Responses to Resource Variables by Parenting Stress Level (Means, SD, F Values, and Significance Levels)

Resource Variable	Fathers' Parenting Stress Level				F	p
	High		Low			
	M	SD	M	SD		
Dyadic Adjustment	103.33	8.96	124.63	6.32	27.38	0.0020**
Cohesion	14.50	4.23	18.25	3.15	3.63	0.0807
Consensus	44.33	3.83	52.25	2.60	21.33	0.0006***
Satisfaction	37.50	3.02	44.25	2.19	23.73	0.0004***
Affection	7.00	0.89	9.88	1.46	18.01	0.0011**
PKD	10.00	0.00	11.40	1.82	1.06	0.3503

p < .01. *p < .001.

Hypothesis 6: There will be no difference in the amount of child development knowledge between fathers with high levels of parenting stress and fathers with low levels of parenting stress. ANOVA was performed to detect the differences in the amount of child development knowledge between fathers with high levels of parenting stress and

fathers with low levels of parenting stress. It was found that fathers with low levels of parenting stress reported slightly greater amount of child development knowledge than fathers with high levels of parenting stress. However, the results were not statistically significant ($F = 1.06$, $p < .40$) as shown in Table 4.4. The null hypothesis, therefore, was accepted.

Hypothesis 7. There will be no relationship between the resource variables, i.e., marital adjustment and amount of child development knowledge and the outcome variable, i.e., levels of parenting stress for fathers. Multiple regression was applied to test the relationship between the resource variables, i.e., marital adjustment, child development knowledge and the outcome variable, i.e., parenting stress for fathers. Fathers' responses to the two resource variables were included in the analysis as independent variables: marital adjustment and child development knowledge. The dependent variable was parenting stress for fathers. The relationship between the independent variables and the dependent variable was not significant as indicated in Table 4.5 ($F = 1.992$, $p < .20$). Multiple regression did not provide strong evidence to reject the null hypothesis. It appeared that there was not a significant relationship between resource variables and the paternal parenting stress.

Table 4.5 Regression Analysis of Resource Variables and Outcome Variable for Fathers

Variable	b	SE	β	T	Sig.T
MTAJ	-.725	.389	-.300	-1.860	.0713
PKD	-.736	1.533	-.776	-.480	.6342
Constant	298.701				
R ²	.102				

In order to examine how couples utilize resources in combating parenting stress, fathers' responses were combined with mothers' responses. Multiple regression was used to investigate the relationship between paternal parenting stress and the way couples used resources in dealing with parenting stress within the family units. As illustrated in Table 4.6, a significant relationship was found between paternal parenting stress and the combination of mothers' as well as fathers' responses to various resource variables ($F = 11.77$, $p < .01$). Further, 35% of the variance of paternal parenting stress was explained by the independent variables. Among all the independent variables, maternal social support carried the most significant weight in predicting paternal parenting stress ($\beta = -.508$, $p < .01$). A significant inverse linear relationship was found between maternal social support and paternal parenting stress. The null hypothesis was not accepted.

In order to find out if stress levels had effect on the relationship between the resource variables and the outcome variable for fathers, separate multiple regressions were

Table 4.6 Regression Analysis of Outcome Variable in Relation to Fathers' and Mothers' Responses to Resource Variables for Fathers

Variable	b	SE	β	T	Sig.T
MMTAJ	-.146	.164	.933	-.954	.3471
MMSSI	-2.331	.679	-.508	-3.431	.0016**
MPKD	-.061	.068	.931	-.393	.6969
MPSI	.244	.256	.811	1.521	.1378
FMTAJ	-.155	.169	.888	-.986	.3314
FPKD	.073	.081	.917	.465	.6450
Constant	268.097				
R ²	.358				

**p < .01.

done for the low stress fathers and the high stress fathers. By examining the results for the low stress fathers, one finds 70% of variance of the paternal parenting stress was explained by the combination of the independent variables. However the relationship was not significant ($F = 2.35$, $p < .30$). Due to the small number of cases of high stress fathers, multiple regression was not desirable for finding out the relationship between the independent variables and the outcome variable.

The results provide some evidence that there is a consistent, though not always statistically significant, tendency for fathers with higher parenting stress to report lower scores on marital adjustment and child development knowledge. The most significant resource variable in predicting paternal parenting stress was the amount of maternal social support reported by mothers. No significant relationship was found between resource variables and the

outcome variable for both the low stress fathers and high stress fathers.

Couples

The importance of having different experiences in the transition to parenthood by the spouses was acknowledged in the analyses reported in the separate sections labeled as mothers and fathers. In this section, mothers' and fathers' responses to each of the measurements were added and averaged to form the couples' scores. It is also important to look at the combined experiences of mother and father as an unit in responding to the transition. Furthermore, an attempt was made to detect whether there were indications of within family differences between mothers and fathers.

Hypothesis 8. There will be no difference in marital adjustment scores between couples with high levels of parenting stress and couples with low levels of parenting stress. The results of ANOVA showed that an overall difference in couples' marital adjustment scores was found between the high stress couples and the low stress couples ($F = 14.48, p < .001$). Data reported in Table 4.7 show that there were significant differences in the couples' sense of cohesiveness ($F = 17.53, p < .01$), their agreeability with each other ($F = 7.26, p < .05$), sense of happiness toward their marital relationship ($F = 18.38, P < .001$), and the willingness to show affection ($F = 9.66, p < .01$). The high stress couples consistently showed lower mean scores in the measurement of marital adjustment than the low stress

couples. The null hypothesis was not supported by the findings of the analysis. Thus, there was a significant difference in marital adjustment scores between couples with high levels of parenting stress and couples with low levels of parenting stress.

Table 4.7 Couples' Responses to Resource Variables by Parenting Stress Levels (Means, SD, F Values, And Significance Levels)

Resource Variable	Couples' Parenting Stress Level				F	p
	High		Low			
	M	S.D.	M	S.D.		
Dyadic Adjustment	107.41	11.80	120.70	6.82	14.48	0.0007***
Cohesion	15.03	2.72	17.53	2.14	9.92	0.0087**
Consensus	46.16	4.49	50.00	3.32	7.26	0.0116*
Satisfaction	43.80	1.67	38.59	4.41	18.38	0.0002***
Affection	7.63	1.69	9.37	1.39	9.66	0.0042**
PKD	9.44	3.53	11.71	1.72	3.71	0.0699

*p < .05. **p < .01. ***p < .001.

Hypothesis 9. There will be no difference in the amount of child development knowledge between couples with high levels of parenting stress and couples with low levels of parenting stress. The results of the data indicated that high stress couples reported lower mean scores on the PKD than did the low stress couples. However, the difference was not significant. Results of ANOVA did not provide strong evidence to reject the null hypothesis. As shown in Table 4.7, there was not a significant difference in the amount of child development knowledge between couples with high levels of parenting stress and couples with low levels of parenting stress ($F = 3.71$, $p < .10$).

Hypothesis 10. There will be no relationship between the resource variables, i.e., marital adjustment, and amount of child development knowledge and the outcome variable, i.e., parenting stress in the high parenting stress couples.

In an attempt to determine the relationship between the resource variables and the outcome variable within family units, multiple regression was used for the families with high parenting stress. No significant relationship was found between the resource variables and the outcome variable for couples with high parenting stress ($F = 1.34$, $p < .40$). The null hypothesis was supported by the results.

Hypothesis 11: There will be no relationship between the resource variables, i.e., marital adjustment and amount of child development knowledge and the outcome variable, i.e., parenting stress with couples of low parenting stress.

In order to study the relationship between the resource variables and the outcome variable for couples with low parenting stress, multiple regression was performed. The results did not reflect a significant relationship between the resource variables and the outcome variable for families with low parenting stress ($F = .567$, $p < .60$). The findings of the data analysis, therefore, supported the null hypothesis.

Overall, the results for couples with different levels of parenting stress in the preintervention phase showed that parenting stress was an important factor in couples' responses to the resource variables, i.e., marital

adjustment and amount of child development knowledge. Generally speaking, couples with higher levels of parenting stress reported a lesser degree of marital adjustment in the areas of Cohesion, Consensus, Satisfaction, and Affection. They also tended to score lower in the amount of child development knowledge. However, when a closer look was taken in order to find out how couples with different levels of parenting stress used various resources in combating parenting stress, no significant relationship was found between the resource variables and the outcome variable for both the low stress and high stress couples.

Mothers versus Fathers

An attempt was made to determine if gender plays a substantial role in determining the experience of transition to parenthood in different ways. Feldman and her colleagues (Feldman, 1987; Feldman & Aschenbrenner, 1983) have shown that women described more positive and more negative aspects of parenthood than their husbands. Therefore, this part of the research was an attempt to understand the different experiences reported by participating mothers and fathers in their transition to parenthood. More specifically, the data were analyzed to find out the differences between mothers' and fathers' responses in each domain of measurement in the current study.

Hypothesis 12: There will be no difference between mothers and fathers in marital adjustment scores. Mothers' responses to Dyadic Adjustment Scale were compared to those

of fathers' to determine if gender makes a difference in the perception of marital adjustment in the transition to parenthood. As indicated in Table 4.8, in the overall comparison, ANOVA was not able to detect significant differences between mothers and fathers ($F = .013$, $p < 1.0$). More detailed analyses were carried out to compare the responses of mothers and fathers toward the subscales of Dyadic Adjustment. Fathers reported slightly higher scores than mothers in the subscales of Cohesion and Satisfaction. Mothers, on the other hand, scored slightly higher than fathers in the subscales of Consensus and Affection. However, there was no statistically significant difference

Table 4.8 ANOVA of Mothers' and Fathers' Responses to Resource and Outcome Variables Before FITL Experience

Variable	Mothers			Fathers			F	p
	Mean	SD	N	Mean	SD	N		
MTAJ	112.30	14.82	70	112.03	11.28	59	.013	.9102
Cohesion	15.47	3.14	70	16.03	3.21	59	1.005	.3179
Consensus	48.47	6.39	70	47.56	4.63	59	.831	.3637
Satisfac.	39.64	5.78	70	40.22	4.22	59	.405	.5254
Affection	8.71	1.73	70	8.22	2.14	59	2.091	.1506
PKD	10.66	3.92	56	10.14	3.04	42	.504	.4794
PSI	220.65	31.71	72	214.93	32.12	59	1.040	.3090
CD1	26.12	3.99	73	25.11	4.64	59	1.842	.1771
CD2	12.49	3.48	73	12.05	3.45	60	.504	.4788
CD3	17.91	4.26	73	18.00	4.03	59	.013	.9104
CD4	9.60	2.64	73	9.45	2.19	60	.128	.7211
CD5	24.23	5.25	73	24.91	4.17	60	.669	.4148
CD6	8.81	2.75	73	9.21	2.53	60	.777	.3795
PD1	19.22	5.25	72	17.98	3.56	60	2.412	.1228
PD2	11.97	2.92	72	13.23	3.12	60	5.731	.0181*
PD3	19.17	4.51	72	16.75	3.92	60	10.586	.0015**
PD4	26.76	5.28	73	25.98	5.32	59	.713	.3999
PD5	12.85	3.41	72	13.32	3.19	59	.665	.4163
PD6	18.26	4.56	72	16.48	4.18	60	5.367	.0221*
PD7	13.14	2.93	72	11.94	2.74	59	5.642	.0190*

* $p < .05$, ** $p < .01$

Note. For more detailed description of the subscales in the PSI please refer to Appendix F.

between the two groups. The null hypothesis was accepted. It appeared that mothers and fathers were very similar in their responses to the Dyadic Adjustment Scale.

In looking at gender differences, one realizes that it is difficult to separate mother's and father's responses as independent categories. Within families, mothers' responses to each of the measurements were most likely to be influenced by the responses made by fathers' and vice versa. An attempt, therefore, was made to match mothers' responses with those of fathers. Two-tailed paired t-tests were performed to detect gender differences within families on Dyadic Adjustment Scale. Table 4.9 illustrates that mothers and fathers did not show significant differences in the scores on the overall Dyadic Adjustment. However, mothers reported significantly higher scores on two of the four subscales on the Dyadic Adjustment Scale than fathers, they were: Consensus ($t = 2.01$, $p < .05$) and Affection ($t = 1.99$, $p < .05$). The null hypothesis was not acceptable based on the results of within family differences. Thus, significant differences on marital adjustment were found between mothers and fathers when their responses were matched.

Hypothesis 13. There will be no difference between mothers and fathers in the amount of child development knowledge. ANOVA was performed to compare the scores of mothers' and fathers' on the PKD. Although mothers scored slightly higher than fathers on the PKD, once again, there was no significant difference found between the two groups

Table 4.9 Paired T-Test of Within Family Differences of Mothers' and Fathers' Responses to Resource and Outcome Variables Before FITL Experience

Variable	Mothers			Fathers			T	p
	Mean	SD	N	Mean	SD	N		
MTAJ	114.05	13.65	57	112.36	11.24	57	1.40	.168
Cohesion	16.03	2.89	57	16.07	3.12	57	-.07	.943
Consensus	48.95	5.85	57	47.65	4.69	57	2.01	.050*
Satisfac.	40.33	5.10	57	40.29	4.24	57	.07	.943
Affection	8.74	1.65	57	8.25	2.16	57	1.99	.049*
PKD	11.27	3.38	41	10.34	2.79	41	2.16	.037*
PSI	220.88	31.81	58	214.93	32.13	58	1.37	.177
CD1	25.88	3.82	58	25.10	4.65	58	1.10	.275
CD2	12.73	3.51	58	12.05	3.45	58	1.48	.143
CD3	18.03	3.99	58	18.00	4.03	58	.06	.952
CD4	2.37	.31	58	2.19	.28	58	.00	1.000
CD5	24.55	5.28	58	24.92	4.18	58	-.58	.566
CD6	8.68	2.71	58	9.22	2.53	58	-1.21	.230
PD1	19.34	5.13	59	17.93	3.57	59	1.95	.056
PD2	12.03	3.09	58	13.29	3.12	58	-2.65	.010**
PD3	18.89	4.54	59	16.67	3.91	59	3.51	.001***
PD4	26.61	5.39	58	15.98	5.33	58	.69	.493
PD5	12.64	3.39	58	13.22	3.13	58	-1.19	.238
PD6	18.12	4.19	59	16.31	3.99	59	3.43	.001***
PD7	12.89	2.69	58	11.95	2.77	58	2.05	.045*

*P < .05. **P < .01. ***P < .001.

as indicated in Table 4.8 ($F = .504$, $p < .50$). The null hypothesis was accepted.

A two-tailed paired t-test was used to determine if there was a difference in mothers' and fathers' responses within families. A significant difference was observed between mothers and fathers when their responses were matched ($t = 2.16$, $p < .05$). Within families, mothers showed significantly greater amount of child development knowledge than fathers as indicated in Table 4.9. These results provide strong support to reject the null hypothesis.

Hypothesis 14. There will be no difference between mothers and fathers in the amount of parenting stress. As

indicated in Table 4.8, the results of ANOVA showed there was no significant difference between mothers and fathers in the overall comparison on the PSI ($F = 1.04$, $p < .40$). Mothers, however, tended to report greater amount of parenting stress in general than did fathers. On closer examination of the 14 subscales in the PSI, there were significant differences between mothers and fathers on four subscales. A significantly higher degree of stress was reported by mothers in the parent domain of the PSI, more specifically in the areas of feeling a sense of restriction imposed by the parental role ($F = 10.586$, $p < .01$), feeling lack of emotional and active support from their spouses ($F = 5.367$, $p < .05$), and feeling less healthy than their spouses ($F = 5.642$, $p < .05$). Fathers, on the other hand, reported significantly higher degree of stress than their spouses in the area where emotional closeness to their children was assessed ($F = 5.731$, $p < .05$). In most of the areas, although the differences were not statistically significant, mothers reported a greater amount of parenting stress in the majority of domains measured by the PSI than did fathers. The null hypothesis was not accepted because there was evidence that in certain areas of the PSI there were significant differences found between mothers' responses and fathers' responses.

When fathers' and mothers' responses were matched, two-tailed t-test revealed that no statistically significant difference was found between matched mothers' and fathers'

responses to the overall PSI, $t = 1.37$, $p < .20$ (Table 4.9). More detailed analyses were carried out to compare the responses of mothers and fathers to the subscales of the PSI. Similar to the previous findings, a significantly greater amount of parenting stress was detected in mothers in the areas where mothers felt a sense of restriction as imposed by the parental role ($t = 3.51$, $p < .001$), relationships with spouses ($t = 3.43$, $p < .001$), and health ($t = 2.05$, $p < .05$). Fathers reported a greater amount of stress in emotional closeness to their children ($t = -2.65$, $p < .01$).

Preintervention Summary

In most of the analyses, there was a consistent, though not always statistically significant, tendency for mothers to report a greater amount of parenting stress than fathers. Overall, these results provided support showing that men and women responded differently to each domain of measurement. These differences were more apparent when their responses were matched within families. Generally speaking, where results were statistically significant, mothers tended to be more positive in their marital adjustment and showed a greater amount of child development knowledge than fathers. Mothers also tended to describe more negative aspects of parenthood than fathers. In fact, mothers were more likely to feel a loss of freedom and less healthy as the result of parenthood than their spouses.

Postintervention Phase

A study done by Cowan and Cowan (1988) reported that parents who had babies became increasingly different from one another in every domain of measurement regardless of their experience with the intervention program. In order to examine how the FITL program has affected mothers and fathers in their experience of parenthood, comparisons were made to study the extent of mother-father differences in each measurement, i.e., marital adjustment, child development knowledge, and parenting stress after the FITL experience.

Mothers versus Fathers

Hypothesis 15. There will be no difference between mothers and fathers in marital adjustment scores after FITL experience. As indicated in Table 4.10, in the overall comparison, there was no significant difference between mothers and fathers ($F = .33$, $p < .60$) as tested by ANOVA. The null hypothesis, therefore, was accepted. However, fathers reported higher scores in the overall Dyadic Adjustment Scale than mothers. When a closer look of Dyadic Adjustment Scale was taken, a nonsignificant trend was observed that higher scores were reported more by fathers than mothers in all but one subscale. Fathers felt their marriages were more cohesive, felt more satisfied with their relationships, and felt more affectionate than mothers after the FITL experience. Mothers scored slightly higher than

their spouses in the subscale of Consensus. Similar results were observed when mothers' and fathers' responses were matched within families as illustrated by using paired t-test shown in Table 4.11.

Table 4.10 Mothers' and Fathers' Responses to Resource and Outcome Variables After FITL Experience (Means, SD, F Values and Significance Levels)

Variable	Mothers			Fathers			F	p
	Mean	SD	N	Mean	SD	N		
MTAJ	116.80	12.85	20	118.94	9.11	16	.33	.5693
Cohesion	16.10	4.19	20	17.35	3.42	16	.97	.3311
Consensus	50.75	5.24	20	50.23	3.54	16	.12	.7334
Satisfac.	41.10	4.36	20	42.00	2.92	16	.52	.4742
Affection	8.85	1.69	20	9.35	1.50	16	.89	.3494
PKD	11.90	1.12	20	10.75	3.01	16	2.42	.1287
PSI	208.85	40.27	20	208.17	31.47	16	.003	.9558
CD1	25.00	6.97	20	24.82	5.62	16	.007	.9337
CD2	12.25	4.06	20	12.00	3.58	16	.038	.8452
CD3	17.90	4.29	20	17.47	4.93	16	.072	.7901
CD4	10.35	3.42	20	10.41	2.89	16	.003	.9536
CD5	23.70	5.38	20	23.94	4.93	16	.019	.8886
CD6	9.10	2.73	20	9.17	2.09	16	.009	.9255
PD1	17.40	3.87	20	16.94	3.23	16	.149	.7010
PD2	11.70	3.33	20	13.29	2.71	16	2.493	.1233
PD3	16.55	4.17	20	17.58	4.45	16	.536	.4691
PD4	24.80	5.60	20	22.58	5.21	16	1.523	.2246
PD5	11.30	3.14	20	12.71	2.26	16	2.357	.1337
PD6	16.30	4.76	20	15.35	2.62	16	.534	.4697
PD7	11.90	3.35	20	11.12	2.47	16	.632	.4320

Hypothesis 16. There will be no difference between mothers and fathers in the amount of child development knowledge after FITL experience. When mothers and fathers were compared in the amount of child development knowledge, ANOVA failed to show any statistically significant difference between the two groups as shown in Table 4.10 ($F=2.42$, $p < .20$). Mothers, however, scored slightly higher than fathers. Similar results were observed when mothers

Table 4.11 Paired T-Test of Within Family Differences of Mothers' and Fathers' Responses to Resource and Outcome Variables After FITL Experience

Variable	Mothers			Fathers			T	p
	Mean	SD	N	Mean	SD	N		
MTAJ	117.50	13.66	16	118.94	9.11	16	-.39	.701
Cohesion	16.17	4.53	16	17.35	3.41	16	-.93	.366
Consensus	51.11	5.48	16	50.23	3.55	16	.55	.589
Satisfac.	41.29	4.63	16	42.00	2.92	16	-.78	.448
Affection	9.00	1.66	16	9.35	1.50	16	-.68	.508
PKD	12.00	1.09	16	10.75	3.06	16	1.48	.159
PSI	209.76	43.69	16	208.17	31.47	16	.18	.860
CD1	25.06	7.37	16	24.82	5.62	16	.21	.834
CD2	12.41	4.37	16	12.00	3.58	16	.38	.708
CD3	17.64	4.97	16	17.47	4.93	16	.20	.846
CD4	10.12	3.64	16	10.41	2.89	16	-.47	.643
CD5	23.76	5.79	16	23.94	4.93	16	-.13	.896
CD6	9.06	2.88	16	9.17	2.09	16	.14	.891
PD1	17.76	3.58	16	16.94	3.23	16	.76	.459
PD2	11.94	3.40	16	13.29	2.71	16	-1.26	.225
PD3	16.59	4.31	16	17.58	4.45	16	-.95	.355
PD4	24.71	5.91	16	22.58	5.21	16	1.46	.164
PD5	11.65	3.18	16	12.71	2.26	16	-1.31	.208
PD6	16.29	5.18	16	15.35	2.62	16	.68	.505
PD7	12.24	3.54	16	11.12	2.47	16	1.88	.078

and fathers were paired within families. Again, as indicated in Table 4.11, the results were nonsignificant ($t=1.48$, $p < .20$). The analyses did not show strong evidence to reject the null hypothesis.

Hypothesis 17. There will be no difference between mothers and fathers in the amount of parenting stress after FITL experience. In the overall comparison of the results of mothers' responses to the PSI with those of the fathers, ANOVA revealed the difference between the two groups was nonsignificant ($F=.003$, $p < 1.0$). The null hypothesis was not rejected. One trend was noticed, i.e., the reported decrease of parenting stress in both mothers and fathers after the FITL experience. The two groups were very similar

in their responses to the PSI (Table 4.10). In the subscales where the differences in scores between mothers and fathers were sizable, mothers reported slightly higher stress levels when their sense of competence in parenting skills was assessed. Fathers, on the other hand, reported slightly higher stress levels in areas of emotional closeness with their children and feeling socially isolated as the result of parenthood. None of the results approached statistical significance.

A series of paired t-tests were performed to determine if differences were detected between mothers and fathers within families. Once again, there was no statistical significance found in the overall comparison as well as in the subsequent comparisons of the responses to the subscales of the PSI (Table 4.11). The null hypothesis, therefore, was not rejected. The nonsignificant trend found in the ANOVA analyses also appeared in the paired t-test within family comparisons. Results of the analyses suggested that fathers experienced more stress in emotional closeness with their children and felt more socially isolated than mothers. In general, mothers felt slightly less competent in their parenting skills than did the fathers. In addition, in the within family comparisons, mothers reported they were less healthy than their spouses.

Postintervention Summary

In summary, based on the findings, it seemed that there was a tendency for mothers and fathers to score increasingly

similarly in each domain of measurement after the FITL experience, although fathers scored slightly higher on the Dyadic Adjustment Scale than mothers. Mothers, on the other hand, scored slightly higher on Parental Knowledge of Child Development (PKD) than fathers. As far as Parenting Stress Index (PSI) was concerned, both parents were very similar in their overall responses to the measurement. None of the differences was significant.

Pretest versus Posttest

In this section, an attempt was made to determine the effectiveness of the FITL program on the participating mothers and fathers. Responses to each domain of measurement before the FITL experience were compared to those after the FITL experience separately for mothers and fathers. The differences found in the pretest and posttest are partially attributed to the participation in the Family Infant Toddler Learning (FITL) program.

Mothers

Hypothesis 18. There will be no difference in pretest and posttest for mothers on marital adjustment. A two-tailed t-test was used to investigate if there was an overall difference in the pretest and posttest for mothers on the Dyadic Adjustment Scale (Table 4.12). The results indicated that there was no statistically significant difference for the comparison ($t = 1.23$, $p < .30$), although

mothers' overall marital adjustment increased in the posttest. The tendency for mothers to score higher in the posttest was found in all the subsequent comparisons on the Dyadic Adjustment Scale. Therefore, mothers were more cohesive, more agreeable, more satisfied, and more affectionate in their relationships with their spouses in the posttest than in the pretest. However, it should be noted that none of the results showed a statistically significant difference. Thus, the null hypothesis was accepted.

Table 4.12 Two-Tailed T-Test Comparisons of Mothers' Responses to Resource and Outcome Variables Before and After FITL Experience

Variable	Pre			Post			T	p
	Mean	SD	N	Mean	SD	N		
MTAJ	112.30	14.82	70	116.80	12.85	20	1.231	.2216
Cohesion	15.47	3.14	70	16.10	4.19	20	0.732	.4661
Consensus	48.47	6.40	70	50.75	5.24	20	1.457	.1484
Satisfac.	39.64	5.79	70	41.1	4.36	20	1.044	.2991
Affect.	8.71	1.74	70	8.85	1.69	20	0.319	.7503
MSSI	24.87	5.68	70	28.05	5.43	20	2.229	.0284*
PKD	10.56	3.92	56	11.90	1.12	20	1.380	.1690
PSI	220.65	31.71	72	208.85	40.27	20	1.385	.1694
CD1	26.12	4.00	72	25.00	6.97	20	0.929	.3552
CD2	12.48	3.48	72	12.25	4.06	20	0.252	.8012
CD3	17.92	4.26	72	17.90	4.79	20	0.018	.9856
CD4	9.60	2.64	72	10.35	3.42	20	1.053	.2949
CD5	24.23	5.25	72	23.70	5.38	20	0.398	.6916
CD6	8.81	2.76	72	9.10	2.73	20	0.417	.6775
PD1	19.22	5.25	72	17.40	3.87	20	1.442	.1525
PD2	11.97	2.92	72	11.70	3.33	20	0.354	.7236
PD3	19.17	4.51	72	16.55	4.27	20	2.334	.0218*
PD4	26.77	5.28	72	24.80	5.60	20	1.459	.1479
PD5	17.85	3.41	72	11.30	3.15	20	1.826	.0710
PD6	18.26	4.56	72	16.30	4.76	20	1.684	.0955
PD7	13.14	2.94	72	11.90	3.35	20	1.618	.1091

*p < .05.

Hypothesis 19. There will be no difference in pretest and posttest for mothers on the amount of parental child development knowledge. As indicated in Table 4.12, two-tailed t-test did not reveal significant difference in the pretest and posttest for mothers on the amount of child development knowledge. However, mothers in the posttest reported greater amount of child development knowledge than in the pretest ($t = 1.77, p < .10$). The results failed to provide strong evidence to reject the null hypothesis.

Hypothesis 20. There will be no difference in pretest and posttest for mothers on maternal social support. For this hypothesis the responses of mothers in the pretest on MSSSI were compared to those of the posttest. In Table 4.12, two-tailed t-test revealed that a significantly greater amount of maternal social support was reported by mothers in the posttest ($t = 2.23, p < .05$). The results of the analysis provided strong support to reject the null hypothesis. It suggested that social support for mothers increased significantly in the posttest.

Hypothesis 21: There will be no difference in pretest and posttest for mothers on parenting stress. As illustrated in Table 4.12, maternal parenting stress was reduced in the posttest. However, the two-tailed t-test did not indicate a statistically significant difference ($t = 1.39, p < .20$). With closer look at all the subscales of the PSI, only one subscale showed a significant difference between the pre- and posttest. In the subscale of measuring

feeling of restriction, mothers' stress levels decreased significantly in the posttest ($t = 2.34, p < .05$). The null hypothesis, therefore, was rejected partially. Although the rest of the comparisons were not significant, it was clear that the results were consistent with the overall comparison. In the posttest, mothers' stress levels reduced tremendously, especially in the parent domain.

Overall, the results provide some support for the effectiveness of the Family Infant Toddler Learning program. In general, where results were statistically significant, greater maternal social support was associated with post FITL experience for mothers. Mothers participating in the program also felt less restriction upon themselves as parents. There was also a clear indication by the nonsignificant trend that post FITL experience resulted in a greater amount of marital adjustment, child development knowledge, and lower levels of parenting stress.

Fathers

Hypothesis 22. There will be no difference in pretest and posttest for fathers on marital adjustment. In the overall comparison, fathers' responses to the Dyadic Adjustment Scale were significantly higher in the posttest than in the pretest as revealed by two-tailed t-test shown in Table 4.13 ($t = 2.31, p < .05$). The null hypothesis was not supported by the results of the analyses. This significant increase in marital adjustment scores in the posttest made by fathers in comparison with the pretest

scores was also reflected in two of the four subscales of the Dyadic Adjustment Scale. These subscales are Consensus ($t = 2.20, p < .05$) and Affection ($t = 2.03, p < .05$).

Fathers after the FITL experience were more agreeable with their spouses in decision making and were more affectionate in their relationships.

Table 4.13 Two-Tailed T-Test Comparisons of Fathers' Responses to Resource and Outcome Variables Before and After FITL Experience

Variable	Pre			Post			T	p
	Mean	SD	N	Mean	SD	N		
MTAJ	112.03	11.28	59	118.94	9.11	17	2.314	.0234*
Cohesion	16.03	3.21	59	17.35	3.41	17	1.473	.1448
Consensus	47.56	4.64	59	50.24	3.54	17	2.200	.0309*
Satisfac.	40.22	4.22	59	42.00	2.92	17	1.627	.1080
Affect.	8.22	2.14	59	9.35	1.50	17	2.033	.0456*
PKD	10.14	3.04	42	10.75	3.07	16	0.060	.4986
PSI	214.93	32.13	59	208.18	31.47	17	0.766	.4458
CD1	25.10	4.65	59	24.82	5.63	17	0.208	.8345
CD2	12.05	3.45	59	12.00	3.59	17	0.052	.9584
CD3	18.00	4.04	59	17.47	4.93	17	0.453	.6517
CD4	9.45	2.20	59	10.41	2.90	17	1.476	.1441
CD5	24.92	4.18	59	23.94	4.93	17	0.819	.4149
CD6	9.22	2.53	59	9.18	2.10	17	0.059	.9527
PD1	17.98	3.56	59	16.94	3.23	17	1.084	.2819
PD2	13.23	3.12	59	13.29	2.71	17	0.071	.9429
PD3	16.75	3.92	59	17.59	4.44	17	0.754	.4512
PD4	25.98	5.33	59	22.59	5.21	17	2.322	.0230*
PD5	13.32	3.19	59	12.71	2.26	17	0.735	.4644
PD6	16.48	4.19	59	15.35	2.62	17	1.052	.2960
PD7	11.95	2.74	59	11.12	2.47	17	1.123	.2649

* $p < .05$.

Hypothesis 23. There will be no difference in pretest and posttest for fathers on the amount of parental child development knowledge. In order to test the hypothesis, fathers' pretest scores on Parental Child Development Knowledge (PKD) were compared to those of posttest scores. As illustrated in Table 4.13, the scores in the posttest

were slightly higher than in the pretest, however the difference was not statistically significant ($t = 1.68$, $p < .70$). Based on the finding of the analysis, the null hypothesis was not rejected.

Hypothesis 24. There will be no difference in pretest scores and posttest scores for fathers on parenting stress.

Table 4.13 illustrated a nonsignificant difference occurred in comparison when the overall responses on the Parenting Stress Index (PSI) of fathers in the pretest were compared with those of posttest ($t = .076$, $p < .50$), thus, providing support for the null hypothesis. In this case, a decrease of overall parenting stress was observed in the posttest for fathers. A closer examination of the subscales in the PSI revealed that a significant difference was found in only one of the 13 subscales. Fathers responded less stress in the posttest in the area where they felt the lack of competence in parenting skills ($t = 2.32$, $p < .05$). In the majority of the subscales, parenting stress was reduced in the posttest for the fathers.

In summary, these results provide further support for the effectiveness of the FITL program. In several instances, there was a consistent, though not always statistically significant, tendency for fathers to report increased scores on marital adjustment and child development knowledge while their scores on parenting stress were decreased after the FITL experience.

Couples

The couple scores were derived by adding and averaging mothers' and fathers' individual responses in each of the measurements. The combined experience of attending the FITL program on both mother and father as a family experience is important to consider given that separating the two as independent categories may present a different view of a family system.

Hypothesis 25. There will be no difference in pretest and posttest for couples on marital adjustment. As indicated in Table 4.14, in the overall comparison, couples' scores on the Dyadic Adjustment Scale increased significantly in the posttest when compared with that of the pretest ($t = 2.338$, $p < .05$). The responses in the subscales showed a similar trend to that of the overall comparison. A significant increase of scores was shown in one of the four subscales, i.e., the Consensus subscale ($t = 2.432$, $p < .05$). The results of the analyses provided no support for the null hypothesis. That is, there were significant differences in the pretest and the posttest for couples on marital adjustment.

Hypothesis 26. There will be no difference in pretest and posttest for couples on amount of parental child development knowledge. An attempt was made to determine if the FITL experience was associated with different amounts of child development knowledge. Couples' scores on the PKD before the FITL experience were compared with those of post

FITL experience, $t = 1.49$, $p < .20$ (Table 4.14). Although a higher amount of child development knowledge was found to be associated with the post FITL experience in couples, no statistically significant difference was established to reject the null hypothesis.

Table 4.14 Two-Tailed T-Test Comparisons of Couples' Responses to Resource and Outcome Variables Before and After FITL Experience

Variable	Pre			Post			T	p
	Mean	SD	N	Mean	SD	N		
MTAJ	112.18	13.27	129	117.78	11.19	37	2.338	.0206*
Cohesion	15.73	3.17	129	16.68	3.85	37	1.529	.1281
Consensus	48.05	5.66	129	50.51	4.49	37	2.432	.0161*
Satisfac.	39.91	5.12	129	41.51	3.75	37	1.768	.0789
Affect.	8.49	1.94	129	9.08	1.61	37	1.689	.0930
PKD	10.44	3.56	98	11.39	2.25	36	1.490	.1377
PSI	218.08	31.90	131	208.54	36.00	37	1.561	.1205
CD1	25.67	4.31	132	24.92	6.30	37	.838	.4030
CD2	12.29	3.46	133	12.14	3.80	37	.228	.8197
CD3	17.95	4.15	132	17.70	4.79	37	.313	.7548
CD4	9.53	2.44	133	10.38	3.15	37	1.753	.0814
CD5	24.54	4.79	133	23.81	5.11	37	.081	.4202
CD6	8.99	2.66	133	9.14	2.43	37	.309	.7578
PD1	18.66	4.59	132	17.19	3.55	37	1.805	.0734
PD2	12.55	3.07	132	12.43	3.12	37	.209	.8344
PD3	18.07	4.40	132	17.03	4.27	37	1.279	.2028
PD4	26.42	5.30	132	23.78	5.46	37	2.660	.0086**
PD5	13.06	3.31	131	11.95	2.83	37	1.856	.0652
PD6	17.45	4.47	132	15.86	3.90	37	1.963	.0513
PD7	12.60	2.90	131	11.54	2.97	37	1.953	.0525

* $p < .05$. ** $p < .01$.

Hypothesis 27. There will be no difference in pretest and posttest for couples on amount of parenting stress. In the overall comparison of the PSI, although lower levels of parenting stress were observed in the posttest measurement for couples, the difference between pretest and posttest was nonsignificant, $t = 1.561$, $p < .15$ (Table 4.14). This finding did not provide substantial evidence to reject the

null hypothesis. Upon examining the individual subscales, a significant difference was shown in one of the 14 comparisons. It is also noted that in all but two subscales, parenting stress was reduced in the posttest. A significant decrease of parenting stress was especially observed in the area where parenting competence was assessed, $t = 2.66$, $p < .001$.

Although the results were not always statistically significant, generally speaking, these results provided support for the effectiveness of the FITL. Greater amount of marital adjustment, and child development knowledge as well as reduction of parenting stress were associated with the FITL experience.

Evaluation of the Conceptual Model in the Posttest

Path analysis was performed to test the overall fit of the model to the current data. Several hypotheses were incorporated in the conceptual model (Figure 1) and were tested by path analysis.

Mothers

This section will provide information about evaluation of the proposed conceptual model for mothers in the posttest. Path analysis was used to find the relationship among maternal social support, child development knowledge, marital adjustment, and their association with parenting stress. The proposed conceptual model is illustrated in

Figure 1. There is evidence sharing that maternal social support and child development knowledge gained from the FITL program had direct effects on parenting stress.

Furthermore, maternal social support and child development knowledge were linked indirectly to parenting stress through their effects on marital adjustment. Spousal relationship is believed to be the first source of maternal social support. Greater social support enhances the marital relationship which in turn reduces parenting stress. By the same token, greater amounts of child development knowledge and parenting skills enhance the cohesiveness of spousal relationship which appear to lead to reduced parenting stress. Marital adjustment was identified as the indirect path in the model. Although the FITL program does not focus on couple relationship directly, however, by attending the program jointly, a sense of closeness and couple identity will be fostered which will impact directly on parenting stress. According to the model, the two exogenous variables were maternal social support and child development knowledge. The endogenous variables were: marital adjustment and parenting stress.

Testing the conceptual model. A series of hierarchical regression equations were used to derive standardized beta weights to estimate path coefficients. The only significant predictor of maternal parenting stress was marital adjustment. Maternal social support was found to have some direct, inverse impact on parenting stress. The effects of

maternal social support were largely indirect, by way of the marital adjustment. The impact of child development knowledge on marital adjustment was weak. Mothers' child development knowledge did not have a direct effect on maternal parenting stress.

A trimmed model of the original conceptual model was obtained by deleting the insignificant path ($\beta < .05$) from the just-identified model, and the standardized beta weights of the paths remaining were recalculated as presented in Figure 3. A comparison of the conceptual model with the trimmed model reveals that many of the predicted paths were supported. Maternal social support exerted a direct, inverse effect on maternal parenting stress. It also had a direct, positive effect on marital adjustment. Marital adjustment in turn had a direct, inverse effect on maternal parenting stress. As predicted, parental child development knowledge directly affected marital adjustment. The predicted direct effect of parental child development knowledge on parenting stress, however, was deleted from the original model.

To test the fit of the trimmed model, the Q score was obtained by calculating the ratio of the variance explained by the trimmed model to the variance of the just-identified model (Pedhazur, 1982). As pointed out by Pedhazur, the closer the Q score is to 1 the better the model fits the data, i.e., very little explained variance was lost in the process of setting certain paths to zero. The results of

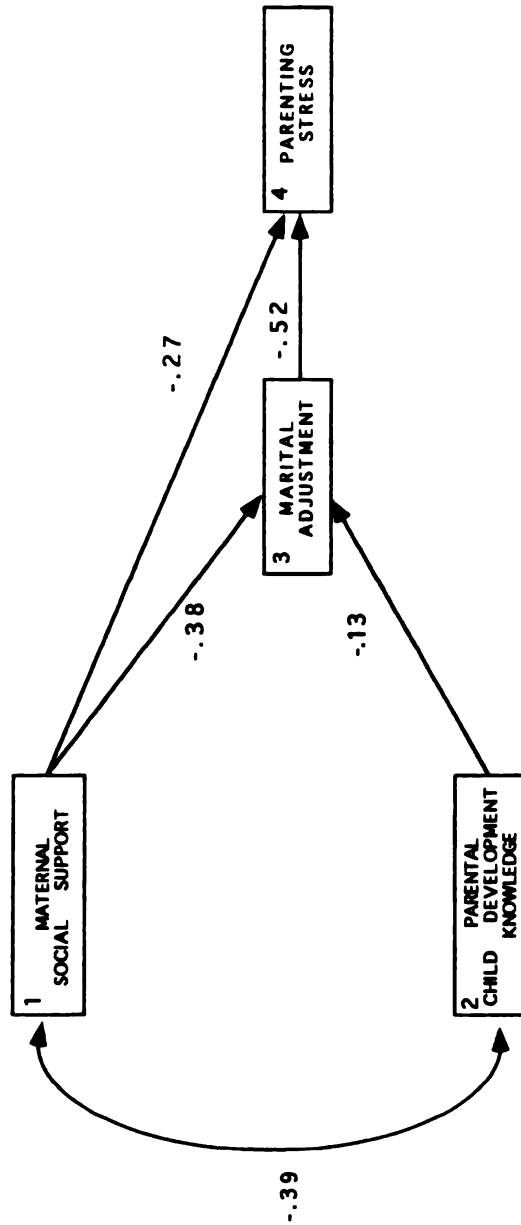


Figure 3. Trimmed Model of Postintervention Phase for Mothers

the current Q score was 0.99752, indicating the trimmed model provided an excellent fit of the data. The W score was also calculated in order to test the overall effect of the model by using the χ^2 distribution ($\chi^2 = .0472$, $df = 1$, $p < .80$). The results indicate that the model fits the data adequately. More specifically, the null hypothesis that the model fit the data could not be rejected.

Hypothesis 28. Maternal social support has an inverse, direct impact on maternal parenting stress. The results indicated the effect of maternal social support on parenting stress was insignificant ($\beta = -.27$, $t = -1.31$, $p < .20$). The hypothesis, therefore, was not supported by the finding.

Hypothesis 29. Parental child development knowledge has an inverse, direct impact on maternal parenting stress. The hypothesized effect of parental child development knowledge on parenting stress was insignificant ($\beta = -.04$, $t = -.204$, $p < .90$). The hypothesis, therefore, was rejected. Increased knowledge of child development apparently did not impact on parenting stress for mothers.

Hypothesis 30. Marital adjustment has an inverse, direct impact on maternal parenting stress. The inverse effect of marital adjustment on parenting stress was significant ($\beta = -.63$, $t = -3.469$, $p < .01$). The finding supported the conclusion that parenting stress was reduced by increased marital adjustment. Thus, the hypothesis was supported.

Hypothesis 31. Maternal social support has a direct impact on marital adjustment. The hypothesized relationship between maternal social support and marital adjustment was not supported by the finding ($\beta = .38$, $t = 1.599$, $p < .20$). Thus, the hypothesis was rejected. Maternal social support did not have a significant direct impact on marital adjustment.

Hypothesis 32. Parental child development knowledge has a direct impact on marital adjustment. The hypothesized effect of child development knowledge on marital adjustment was insignificant ($\beta = .133$, $t = .565$, $p < .60$). The hypothesis, therefore, was rejected. Parental knowledge of child development did not appear to have a direct impact on marital adjustment.

Fathers

The model proposed in Chapter 1 was tested by using path analysis in order to understand the relationship among paternal marital adjustment, child development knowledge, and the paternal parenting stress. In the proposed conceptual model illustrated in Figure 1, it was hypothesized that child development knowledge gained from the FITL program had direct, inverse effect on parenting stress. Furthermore, child development knowledge was linked indirectly to parenting stress through the effects on marital adjustment. Greater amount of child development knowledge and parenting skills enhanced the cohesiveness of spousal relationship which would lead to the reduction of

parenting stress. Marital adjustment was identified as the indirect path in the model and was the result of participating in the FITL program jointly by husband and wife. Marital adjustment was hypothesized to have direct, inverse impact on parenting stress. According to the model, the exogenous variable was child development knowledge. The endogenous variable were marital adjustment and parenting stress.

Testing of the conceptual model. The just-identified model was tested first by using a series of hierarchical regression equations to derive standardized beta weights to estimate path coefficients. None of the predictors approached statistical significance level. The stronger predictor of paternal parenting stress in the model was the parental knowledge of child development. The effect of marital adjustment on paternal parenting stress was weak. The impact of parental knowledge of child development on marital adjustment was not found.

A trimmed model of the conceptual model was obtained by deleting the insignificant path ($\beta < .05$) from the just-identified model, and the standardized beta weights of the paths remaining were recalculated as presented in Figure 4. Marital adjustment exerted a direct effect on paternal parenting stress inversely. As predicted, parental child development knowledge directly affected parenting stress inversely. The predicted direct effect of parental child

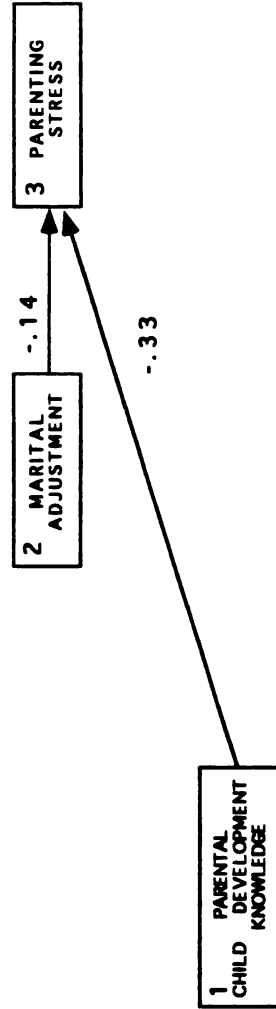


Figure 4. Trimmed Model of Postintervention Phase for Fathers

development knowledge on marital adjustment, however, was deleted in the trimmed model.

The Q score was obtained in order to test the trimmed model. The results of the Q score was 0.99989, indicating the trimmed model provided an excellent fit of the data. The W score was also calculated to test the overall effect of the model. The W score's distribution approximates that of the χ^2 with degrees of freedom equal to the number of paths in the trimmed model set to zero. The results of the W score ($\chi^2 = .0016$, $df = 1$, $p < .90$) indicate that the model fits the data almost perfectly. More specifically, the null hypothesis that the model fit the data could not be rejected.

Hypothesis 33. Parental child development knowledge has an inverse, direct impact on paternal parenting stress.

The hypothesized effect of parental child development knowledge on parenting stress was insignificant ($\beta = -.33$, $t = -1.265$, $p < .30$). The hypothesis, therefore, was rejected. Parental knowledge of child development was not found to have a significant inverse, direct impact on paternal parenting stress.

Hypothesis 34. Marital adjustment has an inverse, direct impact on paternal parenting stress. The inverse effect of marital adjustment on parenting stress was insignificant ($\beta = -.14$, $t = -.536$, $p < .60$). The finding did not support the conclusion that parenting stress was affected by marital adjustment significantly.

Hypothesis 35. Child development knowledge has a direct impact on paternal marital adjustment. The results indicated the effect of child development knowledge on paternal marital adjustment was insignificant ($\beta = .011$, $t = .9678$, $p < .90$).

Summary

All the major hypotheses were reported with statistical findings. The results are summarized in Tables 4.15 and 4.16.

Preintervention Phase

Parenting stress levels were found to be a significant factor in affecting mothers' and fathers' responses, and the combined responses of mothers and fathers on marital relationship, maternal social support, and parental knowledge of child development. Parenting stress was inversely related to all resource variables, e.g., higher levels of parenting stress were associated with significantly lower levels of marital adjustment, maternal social support, and child development knowledge in all respondents. Lower levels of parenting stress were associated with significantly higher levels of marital adjustment, maternal social support, and child development knowledge in all respondents. Multiple regression indicated that marital adjustment was the strongest predictor in affecting maternal parenting stress while maternal social

Table 4.15 Summary Table of Major Findings According to Hypothesis

Null Hypothesis	Rejected	Retained
Preintervention Phase		
Mothers		
1-2, 4	X	
3		X
Fathers		
5	X	
6-7		X
Couples		
8	X	
9-11		X
Mothers vs. Fathers		
12-13	X	
14		X
Postintervention Phase		
Mothers vs Fathers		
15-17		X
Pretest vs. Posttest		
Mothers		
18-19, 21		X
20	X	
Fathers		
22	X	
23-24		X
Couples		
25-27	X	

support was the most significant predictor in affecting paternal parenting stress. No significant relationship was found between the resource variables and the outcome variable for parents with high levels or low levels of parenting stress.

Table 4.16 Summary Table of Path Analysis

Hypothesis	Sig.	Nonsig.
Mothers		
28-29, 31-32		X
30	X	
Fathers		
33-35		X

When mothers' responses were compared with those of fathers, mothers were slightly more positive about their marital adjustment, and scored higher on child development knowledge than the fathers. However, mothers also tended to indicate greater amount of stress and were more negative about parenthood than their spouses.

Postintervention Phase

In the postintervention phase, the differences found between mothers and fathers in the preintervention phase disappeared after the FITL experience. They tended to score increasingly similarly in the postassessment. The nonsignificant trend illustrated that fathers scored slightly higher on marital adjustment. Mothers scored slightly higher on child development knowledge. Both mothers and fathers were very similar in their responses to the PSI.

Pretest vs. Posttest

The results of the analyses revealed that higher scores were reported on marital adjustment, parental child development knowledge, and maternal social support after the FITL experience for both mothers and fathers. Parenting stress was reduced after the FITL experienced for both mothers and fathers. The results were not always statistically significant, however, they showed some evidence of support in the effectiveness of the FITL experience.

1

Evaluation of the Conceptual Model

Based on the results of path analysis and χ^2 test, it was concluded that the trimmed model fitted the current data well and represented the causal relationship illustrated by the hypothesized model.

Tests of hypotheses in this section were based on the hypothesized conceptual model by using path analysis. Hypotheses were tested through multiple regressions. For the mothers, the strongest direct, inverse relationship was found between marital adjustment and parenting stress. Perceived maternal social support was an element had an impact on marital adjustment. Maternal social support was also found to have direct, inverse impact on maternal parenting stress. Parental knowledge of child development was found to have a very weak influence on marital adjustment. A direct impact of child development knowledge on maternal parenting stress was not found. For the fathers, the strongest relationship was found between child development knowledge and paternal parenting stress. The effect of marital adjustment on parenting stress was rather weak. A direct effect of child development knowledge on marital relationship was not found.

CHAPTER V

SUMMARY AND DISCUSSION

In this chapter, four parts will be presented: the summary of the research, discussion of the major findings, conclusion of the study, and recommendations and implications for future research.

Summary of the Study

The main purpose of this research was to test empirically the relationships between various selected resource variables associated with parenting stress in the transition to parenthood. The selected resource variables tested were: maternal social support, amount of parental child development knowledge, and marital adjustment. Parenting stress was the outcome variable in the current study. Another purpose was to evaluate the effectiveness of a parent education program, i.e., the Family Infant Toddler Learning (FITL) program. The FITL program was developed mainly for first time mothers, fathers and their young children with the goals of enhancing meaningful parent-child interaction and decreasing parenting stress. However, there

were those who were not first time parents (10.9%) in the program. In addition, in order to understand the process of the FITL program, this study also attempted to evaluate a viable conceptual model to explain how parenting stress was related to utilization of family resources. Instead of focusing on the mother-infant dyad or father-infant dyad as the primary unit of analysis, the current study viewed family as an integrated system of relationships which are affecting and being affected by the presence of the infant. The family ecological approach provided the major theoretical guidance for the research. Under the theoretical assumptions of the family ecological approach, the impact of transition to parenthood was evaluated as the result of interactions between individual/family and the multilevel systems in which the individual/family was embedded. Furthermore, the ABCX family stress model developed by Hill (1949) provided the initial conceptual framework for the present study in understanding families' capabilities of coping with the parenting stress associated with the transition to parenthood.

Findings of this study were based on a secondary analysis of data collected in the period of 1988 to 1989. Pretest data were collected from 76 families upon their enrollment in the FITL program. Postdata were collected from 20 mothers and 16 fathers at the last session of the FITL series. In order to examine the impact of the FITL program on the participating parents, individual parents

were given separate packets of self-administered questionnaires, they were: the Maternal Social Support Index (Pascoe, 1982) which measures maternal social support for mothers, Parental Knowledge of Child Development (Bristol & Williams, 1988) which measures the amount of parental child development knowledge, Dyadic Adjustment Scale (Spanier, 1976) which measures couple relationship, and Parenting Stress Index (Abidin, 1986) which measures amount of parenting stress perceived by parents.

A large number of hypotheses were developed based on theoretical and empirical grounds. Various parametric statistics were used to test the hypotheses. Path analysis was used to test the proposed conceptual model.

Discussion of Major Findings

Discussion of findings must be viewed with caution given the limitations previously discussed (see p. 77). The present study investigated: (a) the relationship between the resource variables, i.e., marital adjustment, parental child development, maternal social support, and the outcome variable, i.e., parenting stress at the transition to parenthood; (b) the differences of gender in the transition to parenthood in the context of the relationship between the resource variables and the outcome variable for mothers and fathers, (c) the effectiveness of the intervention program on the participating parents, and (d) the evaluation of the

conceptual model. Due to the large number of hypotheses generated by the investigator and summarized in Tables 4.15 and 4.16, findings will be discussed in relation to the research questions posed by the investigator in Chapter 1.

Research Question 1

What is the relationship between resource variables and the outcome variable?

The study was designed to investigate the observation of why some individuals/families were able to manage parenting stress associated with the transition to parenthood more effectively than other individuals/families. Therefore, only individuals/ families who reported high or low parenting stress were included in this part of investigation. One can conclude that the nature of the relationship of the resource variables and the outcome variable is reciprocal, however, this relationship was not clearly defined in previous empirical studies. In the present study, the relationship between the resource variables and the outcome variable was first explored by ANOVA. The dependent variables were the resource variables, i.e., marital adjustment, parental child development knowledge, and maternal social support. The independent variables were the high and low levels of parenting stress. In the second part of the analysis, the relationship between the resource variables and the outcome variable was explored by multiple regression, the dependent variable was the

parenting stress; the independent variables were the various resource variables.

Marital adjustment. The results of ANOVA strongly indicated a significant relationship between stress levels and various resource variables. Significant difference was found between parents with high and low levels of parenting stress in their Dyadic Adjustment scores. High levels of parenting stress were associated significantly with low levels of marital adjustment for both mothers and fathers and vice versa. This result parallels the findings of many other studies that examine the relationship between marital relationship and the onset of parenthood, e.g., Cherlin (1977), Cowan & Cowan (1988), Harriman (1986), and Miller and Myers-Walls (1983). As far as the investigator can determine, very few studies have focused directly on the relationship between parenting stress at the period of transition to parenthood and the marital relationship. However, in all of the studies reviewed, a negative marital relationship was associated with the transition to parenthood, a period when time and effort required for child care was at the peak, i.e., when parenting stress was unusually high. According to Rossi (1968), much of the parenting stress is the result of the difficulties associated with caring for a young infant for which most new parents are not prepared. This dramatic increase in personal responsibilities with substantial new limits on free time, and the increased amount of work associated with

the birth of a first child heighten the likelihood for difficulties. Consequently, it is not unreasonable to speculate that high parenting stress is associated with a negative marital relationship. In fact, in comparing stress and satisfaction reported by couples with young children and couples without children, Feldman (1971) found parents with young children appeared to have less satisfying marriages and were under more stress than couples without children. Perhaps one can conclude that negative marital adjustment at the period of transition to parenthood is not a result of the presence of the new born child, but rather, a result of the high level of parenting stress accompanying this period of time. This line of reasoning was supported by the data of this study. Lower levels of parenting stress were found to be associated with significantly higher levels of marital adjustment. Marital difficulties experienced by many new parents may be avoided if levels of parenting stress remain reasonably low. Clearly, it is not the baby who should be blamed for the parent's distress with the marriage. Rather, spouses who decide to move from the status of couple to family must confront conflicting needs of adults, children, marriages, and families. With little outside support, the relationship of spouses will be vulnerable to strain during the transition to parenthood (Cowan & Cowan, 1987).

Mothers are usually more affected by parenting stress than fathers. Mothers, in general, take on most of the responsibilities in caring for children. However, it is

interesting to note that in this present study, fathers' marital adjustment was as much or even more affected by parenting stress than that of mothers'. This finding is congruent with other research studies which found that the marital relationship played a central role in the men's adjustments to parenthood (Belsky 1979; Goth-Owens et al., 1982; Wandersman 1980). Goth-Owens and colleagues pointed out that "in the absence of specific socialization of fathers into a caregiving role, fathers' parenting role and style may become organized and develop primarily in the context of their relationships with their spouses" (p.187). The central importance of marital relationship to parenting for fathers was supported by the findings of the present study. Fathers with high levels of parenting stress reported much less satisfaction in their marriages and were less likely to show affection toward their spouses than did fathers with lower levels of parenting stress. Parenting stress, on the other hand, did not seem to have the same amount of effect on the mothers' marital adjustment as it did on the fathers. However, this study clearly shows that parenting stress is an important factor affecting marital relationships for both mothers and fathers.

Parental child development knowledge. An attempt was made to determine whether parental child development knowledge was associated with levels of parenting stress. It was observed that both mothers and fathers with high levels of parenting stress did not respond significantly

differently from mothers and fathers with low levels of parenting stress in terms of their amount of child development knowledge. Generally speaking, both mothers and fathers did not possess a great deal of child development knowledge. However, the results did show an important trend revealing that greater amounts of child development knowledge were associated with parents of lower levels of parenting stress.

It is important to point out the fact that the instrument of Parental Knowledge of Child Development developed by Bristor and Williams (1989) was neither tested for reliability nor validity prior to the data collection. Parental Knowledge of Child Development was designed to test parents' awareness of children's major developmental milestones. Perhaps this type of child development knowledge has very little to do with parenting stress in daily caretaking situations. In an earlier study by Fang (1981), it was found that senior college students majoring in Child Development and Early Childhood Education responded consistently differently from mothers in hypothetical home situations that called for an immediate adult response. The investigator concluded that a gap was found between the type of book knowledge that child development students have and the application of the knowledge in home situations where child care management skills are required. More studies need to be done to evaluate the appropriateness of the training in providing formal and informal child development

knowledge and the way parents translate this knowledge into daily parenting situations, especially at the period of transition to parenthood when demands for parenting are especially great.

Maternal social support. Results of the study showed a significant difference in maternal social support at the $p < .01$ level between mothers with high levels of parenting stress and mothers with low levels of parenting stress. Mothers with high levels of parenting stress reported significantly lesser amounts of maternal social support than mothers with low level of parenting stress. Mothers with more social support had lower parenting stress. It seems that maternal social support is an important buffer in coping with the stress of transition to parenthood. Findings of this study strongly suggest that the ease of parenting at the transition to parenthood is in part determined by the availability of social supports both inside and outside of the family unit. Results of this study correspond to results of Power & Parke (1984) and McGuire & Gottlieb (1979). In both of the studies, social support has been identified as an important factor relating to maternal stress levels.

It is important to emphasize that the instrument of Maternal Social Support Index (MSSI) was designed to measure the maternal social support network in general. The MSSI is a measurement of the extent of the individual mother's social network with very little evaluation on the quality of

the network. It is felt that a global measurement of social network provides a weak indication of the kinds of experience of the social supports. Another problem with the MSSSI is its inability to register changes over time in the nature of support that is needed by mothers throughout the period of transition to parenthood. As was pointed out by Power and Parke (1984), social support at the transition to parenthood is very unique in nature. The fact is various kinds of support are required and the need for a supportive network changes throughout the transitional period. In order to understand the nature and variety of social supports that are important for mothers during the period of transition to parenthood, longitudinal studies are needed. More attention is also needed to examine how social support impacts fathers' adjustment to parenthood. Very little is known about how social supports help fathers move into the parenting role. Moreover, the changing needs for social support during this period of transition are central to the task of measurement for the purpose of building family strength and imparting resources early in the family system.

Multiple regression was used in the last section of analysis to find out the relationship between the resource variables and the outcome variable. When mothers' responses were considered, among various resource variables, maternal social support was the most significant predictor of maternal parenting stress. Interestingly, when both mothers' and fathers' responses were taken into

consideration in predicting maternal parenting stress, the most significant factors in predicting maternal parenting stress were fathers' responses to marital relationship followed by mothers' responses to marital relationship. When the same procedure was performed for the fathers, it was maternal social support that was the most significant factor in predicting paternal parenting stress. In other words, marital relationship played a central role in predicting mothers' perception of parenting stress. For fathers, on the other hand, the perception of parenting stress was affected mostly by the amount of maternal social support reported by mothers. These findings are not in total agreement with findings from previous research. In a study done by Wandersman et al. (1980), the quality of marital relationship was extremely important to the men's adjustment to parenthood. In the same study, mothers' sense of well-being was found to be less strongly related to the marital relationship than it was for fathers. Moreover, the current study did not sustain the viewpoint that social support, especially support from parents and in-laws, could be perceived as a source of tension sometimes by the new parents. Interferences from in-laws was identified as one of the most stressful events associated with the onset of parenting (Alpert et al., 1983). Maternal social support, however, in the present study was found to be especially helpful for fathers in alleviating parenting stress. The instrument used in the study was a global measurement of

maternal social support and was not designed to locate the specific source or type of social support perceived by mothers. Social support, in general, perhaps was beneficial to both parents in the present study.

Maternal parenting stress was strongly predicted by paternal and maternal marital adjustment in the current study. This can be explained by the fact that the marital relationship can be viewed as the first order social support received by the mothers. Marital adjustment can serve as a direct index of an individual's perception of marital happiness. It is reasonable to believe that perceived marital happiness on the mothers' part can serve as a strong indication of social support received from the spouse. It is also reasonable to speculate that fathers who scored high on marital adjustment will provide strong emotional support to mothers. Support from the husband, in turn, facilitates the wife's adaptation to parenthood during all phases of this transition. This is consistent with findings of Stemp, Turner, and Noh (1986) and Power and Parke (1984) that marital relationship is strongly related to psychological well-being in the postpartum period for mothers.

Of special interest was the effect of the marital relationship on paternal parenting stress. It was found to be a rather weak predictor among all the resource variables in relationship to paternal parenting stress. The strongest predictor of paternal parenting stress found in this study was the maternal social support. This finding is contrary

to the previous research by Goth-Owens et al. (1982), and Wandersman (1980). In both studies it was found that the most important predictor of overall paternal adjustment to the parenting role was the quality of marital relationship. However, one may argue that in both of these studies, the researchers were looking at only one aspect of social support in relation to the period of transition to parenthood, i.e., marital relationship. It is the belief of the present investigator that cross-domain combinations, i.e., examining the effects of various factors simultaneously functioned as better predictors than measures taken from single domains (Herming, 1986). Moreover, it is reasonable to believe that the perceived adequacy of maternal social support will decrease parenting demands on fathers which, in turn, reduces paternal parenting stress.

Research Question 2

Does gender have an effect on the experience of transition to parenthood in terms of the relationship between the resource variables and the outcome variable for mothers and fathers?

In this section, major findings will be presented by each of the variables followed by individual discussion of these findings.

Marital adjustment. Results of ANOVA revealed that mothers and fathers were very similar in their responses to the overall Dyadic Adjustment Scale. When a closer examination of the Dyadic Adjustment Scale was taken, a

nonsignificant trend showed mothers scored slightly higher in the Affection and Consensus subscales and fathers scored slightly higher in the subscales of Cohesion and Satisfaction.

The lack of gender differences found in marital adjustment could be the result of a relatively homogeneous sample. Respondents were well-educated and members of intact families. The majority of them were affiliated with the university in different capacities. Individuals may have been familiar with different research techniques, therefore, tended to give socially acceptable answers to the self-report questionnaires. All of this may have influenced the outcome of the comparisons.

Comparisons of overall mean scores of mothers and of fathers do not reflect the level of marital adjustment perceived by one spouse in the family which may affect the other spouse's perception on this variable. In order to alleviate this possible problem, mother's responses were matched with father's responses within each family. Results of the paired t-test showed that mothers' overall marital adjustment was slightly higher than that of fathers. Mothers' scores on the subscales were significantly more agreeable and more affectionate than their spouses. One may conclude that within families, there exists a disparity in the husband's and the wife's perception of marital adjustment during the transition to parenthood with mothers scoring slightly higher than fathers. This finding is in

line with that of Spanier (1973) and Waldron and Routh (1981). By using the Locke-Wallace Marital Adjustment Scale, both studies suggest that wives might perceive their marriages as being happier than their husbands after the birth of their first child. The current data also indicated that mothers were more affectionate than their husbands. This supports one previous study (Ryder, 1973). By using a marriage dissatisfaction scale, Ryder found that in the first year or two after having the first child, wives were more likely to feel that their husbands were less attentive and affectionate toward them.

It should be noted that marital relationship is a multidimensional phenomenon which is comprised of behaviors, feelings, attitudes, and interactions. Although the Dyadic Adjustment Scale is widely used in assessing marital relationships, it is restrictive in its measurement to distinguish different dimensions of marital relationships. The Dyadic Adjustment Scale is especially limited in scope for it does not address the issue of sexual intimacy between husband and wife during this transitional period. As it was pointed out by various researchers (e.g., Hobbs & Cole, 1976; Wandersman, 1980; Wente & Crockenberg, 1976), the decrease of marital satisfaction in fathers, in part, was associated with the increasing difficulty to reestablish intimate contact with their wives and the decreased sexual responsiveness of the wives after the birth of the first child. The importance of sexual intimacy is severely

overlooked when using the Dyadic Adjustment Scale. Furthermore, its generality in measurement based on subjective views of the respondents may influence respondents to be systematically biased toward reporting relatively rare or vivid events or toward giving ego enhancing responses (Belsky, Lang, & Rovine, 1985). This problem has caused difficulties in determining whether or not the written responses of the respondents are accurate reflections of the marital relationships. More refined measurements in evaluating marital relationship during this transition to parenthood is needed.

Parental child development knowledge. The results of the ANOVA showed a trend that mothers had more child development knowledge than fathers, but the difference was not statistically significant. When the responses of mothers and fathers were matched by a paired test, mothers scores were significantly higher than those of fathers.

In previous studies, SES has been found to be an important factor in the relationship between parental child development knowledge and infant development (e.g., Parks & Smeriglio, 1986; Stevens, 1984). In most of these studies, middle class and upper class parents were found to reach the "ceiling effect" in the measurement of parental child development knowledge. However, in this study, such an effect was not found. Mothers in the current study reported higher scores on child development knowledge than did fathers, however, there was a considerable body of knowledge

that these parents did not possess. The finding of this study is congruent with the research done by Kliman and Vakelich (1985). They concluded that middle class parents did not differ from lower class parents in lacking child development knowledge.

Parenting stress. The analysis of this variable indicated that mothers reported higher levels of overall parenting stress than did fathers. The difference, however, was not significant. When examining the subscales of the PSI, significantly greater amount of maternal parenting stress was found in the parent domain of the PSI, especially in feeling restricted by the parenting role, lacking emotional and active support from the partner, and feeling less healthy. On the other hand, significantly greater levels of paternal parenting stress were found in the feelings of attachment and closeness to children. Similar findings were detected when mothers' and fathers' responses were matched within families. This finding is consistent with the findings reported by Hoffman and Manis (1978), Wilkie and Ames (1986), and Cowan and Cowan (1987, 1988). Although both men and women experience stress during the transition to parenthood, these authors reported that a woman's stress is generally greater. Much of the stress felt by mothers during first pregnancy was the result of the couple relationship. There is a gradual move away from a more egalitarian family role toward the more traditional gender role division. It is usually the mother who leaves

employment and has greater involvement in child care and household responsibilities. Father, on the other hand, is more concerned with the responsibilities of providing economically for the family and is less concerned with the responsibilities of direct child care. Father's involvement with child care and housework drops after the birth of the first child (Hoffman & Manis, 1978). The current findings clearly reflect the existence of this reality within the household after the birth of the first child. Parenting stress found in the present study was significantly related to gender and the division of labor and was not related to the characteristics of the child or other stressful events in life. The sense of loss of one's freedom and identity reported by mothers perhaps reflected the characteristics of this particular sample included in the study. Mothers in the current study can be described as older and highly educated. The majority of them chose to leave their employment and stayed home as full-time mothers. The major concern expressed by these mothers in terms of loss of freedom perhaps reflected the most striking reality of parenthood to them.

Research Question 3

Does FITL have an impact on participating families during the transition to parenthood? If it does, what is the effect of the FITL program in affecting the gender differences between mothers and fathers and who appears to

benefiting more from the FITL program, i.e., mothers or fathers, is the question of interest.

Marital adjustment: Gender differences. After being in the FITL program, the posttest result of gender difference in marital adjustment showed that mothers and fathers were very similar in their responses. However, the nonsignificant trend illustrated that fathers scored slightly higher than mothers in the overall measurement of the Dyadic Adjustment Scale (MTAJ) and three of the subscales (Cohesion, Satisfaction, and Affection) than did mothers. A similar trend was found in the paired t-test when mothers' and fathers' responses were matched.

Several reasons could account for the lack of gender differences in the marital adjustment after the FITL experience. It has been well documented that over time, husband and wife make more similar appraisals of their marriage (Belsky, et al., 1985; Waldron & Routh, 1981). In previous studies, pretest results showed that mothers scored higher in the MTAJ than did the fathers, however, throughout the transitional period of parenthood, mothers experienced greater negative change in their perception of marital relationship. In the posttest, the mean scores of mothers and fathers decreased from the pretest and looked increasingly similar. This finding was partially supported in this study. Gender differences on marital adjustment from the pretest to the posttest disappeared. However, in the present study, unlike the pattern reported by Belsky et

al. (1985), both mothers and fathers showed an increment of the scores on MTAJ after the FITL experience. The increase in the marital relationship was more pronounced for fathers. In the pretest, mothers' scores on the Consensus and Affection subscales of the MTAJ were significantly higher than those of the fathers. In the posttest, mothers' scores had increased slightly while fathers' had increased tremendously. Therefore, more pronounced changes in the marital relationship were found in the fathers. Consequently, the scores of mothers and fathers were very similar in the posttest. Due to the small sample size included in the posttest, caution should be exercised in interpreting these findings.

Parental child development knowledge: Gender differences. Again, no significant gender difference was detected between mothers and fathers in between groups and within family analyses in the posttest. As was found in the pretest, the nonsignificant trend showed that mothers reported greater amount of child development knowledge in the posttest than fathers. Small sample size in the posttest could be the main factor in contributing to the lack of gender difference in the amount of child development knowledge found in the current study after the FITL experience.

Parenting stress: Gender differences. The results revealed that there was no significant difference in parenting stress between mothers and fathers after the FITL

experience. In fact, mothers' and fathers' appraisals of the parenting stress in the posttest measured by the PSI were very similar. The significantly different levels of parenting stress found in the subscales of the PSI between mothers and fathers in the pretest did not appear in the posttest. One may argue that the small sample size included in the posttest could be a major factor in not being able to find gender differences in this variable. However, by comparing the mean scores, one can see clearly that both groups were indeed very close in their responses. The lack of difference between mothers and fathers in the posttest might be a reflection of the characteristics of the sample included in the posttest analysis. The parents who returned the questionnaires in the posttest perhaps were self-selected and different from the rest of the sample who chose not to fill out and return the questionnaires the second time. These parents may take the FITL experience more seriously and may have been more willing to make a strong commitment to the program than other parents. They may also represent the ones that had less difficulties with the transition to parenthood. This may in part account for the likelihood that these parents would respond similarly, thus diminishing the gender differences in the posttest.

Marital adjustment: Pretest vs. posttest. In the posttest mothers showed higher mean scores on the overall Dyadic Adjustment Scale (MTAJ) and all the subscales of the MTAJ than in the pretest. However, none of the differences

reached statistical significance. A similar trend was found for the fathers. In addition, two significant increases of mean scores were detected in the posttest for the fathers, i.e., the overall MTAJ and the subscale of Consensus. When the mean scores of mothers and fathers were averaged to form the couple variable, again, significant increases of the overall MTAJ and the Consensus subscale of the MTAJ were found. The results suggested that after the FITL experience, marital relationship has been solidified between husbands and wives. More specifically, the overall degree of happiness of marriage and the extent of agreeability have increased significantly in the posttest. This change was most pronounced for the couples and for fathers. It is clear that by attending the FITL program together, although the FITL program did not address marital concerns directly, a sense of bonding and couple identity were developed. This perhaps was more important for the fathers. The FITL program provided an opportunity for fathers to share an experience and to develop a common goal with their spouses in this process of becoming parents. It also gave them a greater sense of participation in their children's development, which, in turn, might relate to their evaluation of the marital relationship.

Maternal social support: Pretest vs. posttest.

Maternal social support increased significantly for mothers after participating in the FITL program. It appeared that the FITL program was clearly a positive experience for

mothers in serving as a source of information and cognitive support. Further, the FITL program also provided opportunities for couples to feel a sense of social support and to share common parenting concerns with other couples who were experiencing and coping with similar aspects of transition.

Parental child development knowledge: Pretest vs. posttest. A nonsignificant trend showed that a greater amount of child development knowledge was reported after the FITL experience by mothers, by fathers, and by couples. The finding also suggested that the increase in the amount of child development knowledge was more pronounced in the mothers. On the average, mothers' posttest scores on the Parental Knowledge of Child Development (PKD) increased by 12.7% from that of the pretest scores whereas fathers' scores on the PKD increased by 6%. Apparently, mothers gained more knowledge of child development than did fathers by attending the FITL program.

Parenting stress: Pretest vs. posttest. Results in the posttest indicated a decrease in overall parenting stress levels reported by mothers, fathers, and couples. This decrease of the overall parenting stress levels was more pronounced for mothers. Mothers reported a decrease of 11.8 points in the overall levels of parenting stress whereas fathers reported a decrease of 6.8 points after the FITL experience. Although the comparisons of the overall scores on the PSI did not reach statistical significance, this

reduction of parenting stress in general represented an impact of the FITL program on the participating parents. Significant reduction of parenting stress levels was found in the examination of the subscales of the PSI. For the mothers, this impact of reducing stress was felt significantly in the area of feeling a loss of freedom and identity imposed on them by the parental role. For the fathers, a significantly greater sense of parenting competence was reported in the posttest. There is evidence that participating in the FITL program functioned as a support system for the mothers. Whereas for the fathers, the FITL experience provided an opportunity to learn new parenting skills and knowledge. The impact of participating as a couple in the FITL program was most pronounced in the area of parenting competence. Furthermore, it is interesting to note that a tremendous reduction of parenting stress in the posttest, close to levels of statistical significance, was detected in two of the subscales on the Parenting Stress Index (PSI). These two subscales were: relationship with spouse and the perception of health status. For the couples, the participation in the FITL program represented a learning experience in interacting with children as well as provided them with an opportunity to improve their marital relationship. The couples' perception of their health status also improved after attending the FITL program perhaps was the result of the general reduction of parenting stress. In general,

parenting stress levels were reduced to a greater extent for mothers and for couples than for the fathers. The small sample size of fathers' posttest data could perhaps account for the lack of differences in comparison of pretest scores and posttest scores.

Research Question 4

Does the conceptual model (Figure 1) fit the data?

Mothers. The inverse effect of marital adjustment on maternal parenting stress was strongly supported. Higher scores on marital adjustment indicated lower levels of parenting stress reported by mothers in the posttest. Marital adjustment was the strongest predictor of maternal parenting stress after enrolling in the FITL program. This finding confirmed many other research results about the association between marital relationship and psychological distress during the transition to parenthood (Belsky et al., 1983; Belsky et al., 1985; Cowan & Cowan, 1987, 1988; Goth-Owens et al., 1982; Stemp et al., 1986). The direct effect of child development knowledge on maternal parenting stress was found to be very weak. This lack of effect may be due to the existence of a gap between parental child development knowledge and its application in the daily parenting situations. Mothers may have a considerable amount of child development book knowledge, however, this knowledge perhaps has very little to do in combating parenting stress for mothers. The finding of no significant effect of child development knowledge on marital adjustment

could be related to the instrument itself in measuring one's knowledge of child development. Parent's awareness of children's major developmental milestones is important, however, as an evaluation of parent's knowledge on caregiving practices it is questionable. Perhaps a more suitable approach to measure child development is the type of knowledge related to the daily parenting tasks and situations.

A direct, inverse effect of maternal social support on parenting stress was found to be insignificant. The absolute low levels of maternal parenting stress found associated with post FITL experience may account for the lack of direct relationship between maternal social support and maternal parenting stress. Maternal social support appeared to be more effective in combating parenting stress when stress level was high as was found in the pretest. In the pretest, maternal social support was found to be one of the most significant factors in predicting maternal parenting stress. This line of reasoning was supported by findings from McGuire and Gottlieb (1979).

Although the direct impact of maternal social support on marital adjustment was found to be insignificant, one can not ignore the importance of this relationship. The fact that maternal social support increased significantly after the FITL experience leads to the conclusion that the FITL program was successful in encouraging and providing opportunities for parents to make greater use of the formal

and informal supportive resources available in the social network. Furthermore, an important source of support is one's relationship with a spouse. As stated previously, an increase of marital adjustment scores was associated with a decrease of parenting stress. Therefore, it can be concluded that maternal social support has an inverse, indirect effect on parenting stress through marital adjustment among mothers. This weak association between parenting stress and social network is in agreement with the results of Stemp et al. (1986) and is in contrast with the findings of Brown, Bhrolchain, and Harris (1975). The inconsistency found between the results of this study and that of Brown et al. pointed out an important methodological problem in measuring and conceptualizing the social support variable. As stated by Stemp et al. social support as a variable has been defined and measured in a manner largely idiosyncratic to each study. This confusion has resulted in an inability to summarize the relationship between social support and transition to parenthood in a straightforward manner. The need for a clear conceptualization of the role social support plays in modifying the experience of transition to parenthood is apparent.

Based on the above mentioned findings, the trimmed conceptual model with the elimination of the relationship between parental knowledge of child development and maternal parenting stress described the current data well.

Fathers. The inverse, direct impact of parental child development knowledge on paternal parenting stress was nonsignificant. However, it is interesting to note that between the two resource variables, child development knowledge had the stronger effect on paternal parenting stress in the posttest. As pointed out previously, fathers' scores on Parental Knowledge of Child Development (PKD) increased 6% after the FITL experience. This modest but important increase of parenting knowledge and its direct, inverse impact on parenting stress for fathers deserve some attention. The role of parenting knowledge in the transition to parenthood represents an under studied area. In addition, previous studies of the relationships between child development knowledge and parenting only included mothers with the assumption that parenting primarily involved mothers. This study has demonstrated the usefulness of applying a family ecological framework to study the transition to parenthood as a family process. The knowledge gained from participating in the FITL program was beneficial to fathers for it increased their knowledge of child development. The FITL experience, therefore, represents an important source of informational support for the fathers during the transitional period.

An impact of child development knowledge on marital adjustment was not found for the fathers. As stated previously, the measurement of child development knowledge adopted by the current study could account for the lack of

relationship between child development knowledge and marital adjustment for fathers. The relationship between child development knowledge and marital adjustment, therefore, was dropped from the model.

The direct, inverse impact of marital adjustment on paternal parenting stress was very weak. This finding is inconsistent with previous findings (Wandersman et al., 1980). Wandersman et al. (1980) found that relationship with one's spouse played an important role in determining the effectiveness of a parenting group for participating fathers and their overall adjustment to parenthood. The small sample of fathers included in the posttest in the present study could explain the lack of significant relationships found in this part of the study.

Current data from the study provided evidence to modify the original conceptual model. The trimmed conceptual model more adequately fits what was found.

Conclusion

The results which were presented previously document the observation that transition to parenthood generated a significant amount of disequilibrium for each individual and couple. The period of transition to parenthood represents a time of physical and psychological vulnerability and uncertainty. As has been clearly indicated in the present study, parents with high levels of parenting stress were

more vulnerable to personal or marital distress than parents with low levels of parenting stress. Mothers were more vulnerable to parenting stress than their spouses which reflected in the most significant gender differences found in the pretest of the current study. Even though mothers reported higher levels of parenting stress before the FITL experience, they seemed to be happier in their marital relationships at the same time. However, marital adjustment turned out to be one of the most important dimensions in predicting maternal parenting stress. Fathers, on the other hand, were not free from parenting stress and were suffering from having difficulties to establish emotional closeness with their children as indicated in the results of the pretest. Maternal social support was the most important factor in predicting paternal parenting stress.

An ongoing group experience provided by the FITL program seemed to give couples opportunities to grow and change together. By using the ecological framework, the FITL program provided information, guidance, opportunities for informal networking, and models for interaction with children by focusing on individual, dyad, and triad levels. Most of all, it furnished occasions for couples to integrate their thoughts and feelings by sharing similar experiences with other couples.

One of the most obvious effects of the FITL program found in the current study was the decrease of gender differences among the respondents. Fathers showed a great

deal of increase in marital adjustment scores and a modest growth in the amount of child development knowledge in the posttest. Mothers, on the other hand, reported a tremendous gain in maternal social support and moderate increase in child development knowledge. Parenting stress was greatly reduced for all parents, but was more pronounced for the mothers. The effectiveness of the FITL program was clearly demonstrated and both mothers and fathers have benefited from this experience. The current study also supports the viewpoint that mothers and fathers experience differently the personal and marital changes accompanying parenthood. However, it is also very important to examine the combined experiences of mother and father as a family experience, since the transition to parenthood provides an opportunity for the couples to work together as a team.

In the evaluation of the conceptual model, the major findings of this investigation provided strong evidence for the importance of studying the transition to parenthood by using the family ecological approach along with a family stress model. The current model demonstrates that what occurs in parenting is related to individual factors as well as marital relationships. More specifically, parenting stress accompanying the transition to parenthood can be evaluated as an outcome of the functioning of various resource variables in the individual, dyad, and social levels. From the family stress model, perception of parenting stress was assessed by the extent to which demands

were met by the available resources, i.e., maternal social support, marital adjustment, and parental child development knowledge. It is evident in the posttest that marital adjustment strongly affects maternal parenting stress. Maternal social support also was an important dimension which directly impacted on maternal parenting stress and also indirectly affected maternal parenting stress through the mediation of marital relationship. Child development knowledge had a very weak effect on maternal parenting stress. Child development knowledge, however, was the strongest predictor of paternal parenting stress in the posttest. Findings of this study seemed to suggest that the FITL experience provided different support systems in the context of affecting parenting stress for mothers and fathers. For mothers, the FITL experience was an important source of social support. For fathers, the FITL experience served as a major source of cognitive growth. Being in the program together also provided an opportunity to impact on the marital relationship in a positive way. It demonstrated the fact that fathers needed information on parenting beyond the level of knowledge they had before enrollment the FITL program. The current research clearly illustrated that mutual participation in the FITL program served as a positive experience for the families.

Implications

Implications for Future Research

The purpose of this study was exploratory in nature. Its primary purpose was to identify various dimensions in mothers' and fathers' roles and family systems that related to the successful transition to parenthood. The current conceptual model demonstrates the importance of considering the family ecosystem framework in the study of the transition to parenthood period. Specifically, the current study viewed parenting stress as the interaction between the organism (individual, couple) and the environment (social support network, FITL program) at the onset of parenthood. Future research needs to continue the work in developing a holistic model to further identify other significant factors in relation to the process of the transition to parenthood. In addition, the period of the transition to parenthood needs to be conceptualized as a "process" rather than as a status or condition (LaRossa & LaRossa, 1981). LaRossa and LaRossa indicated that:

a better approach would be to view the transition to parenthood as a dynamic process of becoming rather than a static state of being. Such an approach would encourage studies of second- (or third-, fourth-, etc.) time parenthood which collectively would form an overall picture of the process of becoming a parent and an overall picture of the process of becoming a larger family system. (p.26)

Therefore, a longitudinal study is essential in identifying this process. Further, qualitative research is extremely valuable in addition to the quantitative research in the development of the ecological theory. In-depth interviews may be useful in identifying some of the concepts and causes of the difficulties that parents are experiencing in association with the transition to parenthood.

An appropriate comparison group, ideally a randomly assigned control group, should be included in the future study. When random assignment is not possible, strategies other than the use of a nonintervention control group will be important to consider. Examination of the effect of the FITL program on a large and more heterogeneous sample is strongly recommended. Sample populations with different socioeconomic status and ethnicity may give further evidences to clarify the process of transition to parenthood. The inclusion of these different groups will have an impact on the generalizability of the research and the predicted outcomes. Data collected on participants in the FITL program are mainly from middle class and upper middle class sample and provide only limited information about the important relationships during this period of transition to parenthood. The inclusion of a more heterogenous sample in the study of the transition to parenthood warrants some considerations.

The issue of suitability of current measures needs to be addressed. Most of the measurements available were

normed by using only white samples. Extra caution needs to be exercised in applying the same measurements to racially and culturally different groups of parents. Furthermore, the important dimensions salient to these groups during the transition to parenthood may be very different from the white middle-class couples. For example, marital relationship was identified as the most crucial factor in the couple's adjustment to new parenthood in the majority culture. In cultures where extended family living arrangement is common, marital relationship may be less important in the adjustment of parenting roles than the support provided by other family members. In the future research, much initial work will have to be done to determine the validity of the frequently used measures for other ethnic groups. The unique cultural aspects that are associated the transition to parenthood of different cultural groups need to be identified. (Goldberg & Michaels, 1988)

The need for long-term follow-up in order to understand the full impact of the FITL experience on the participating mothers and fathers is highly recommended. Inclusion of time as a dimension is important in evaluating program goals, especially when the program, such as the FITL program, is preventive in nature.

Finally, the continuation of the effort to develop more concise evaluation tools is urgently needed. It is extremely important to have more reliable and efficient

assessments of the different dimensions that are associated with the transition to parenthood. The conceptualization and operationalization of the various variables such as marital adjustment, social support, parental child development knowledge need to be clarified further in future studies. As far as the present researcher can determine, the emphasis of most of the standardized instruments is on examining individual attitudes towards various variables. As suggested by LaRossa and LaRossa (1981), perhaps patterns of interaction between attitudes and behaviors are appropriate in the study of the transition to parenthood.

Implications for Family Ecological Theory

The ecological approach was utilized in this research to explore the effects of the Family Infant Toddler Learning program on the participating families. In addition, the study was designed to explore parenting stress accompanying the transition to parenthood as an outcome of the interaction between the individual and the various resource variables of the environment. The variables included in the research provided a model for understanding the dynamic and complicated process of adaptation that individuals and families had to make in coping with parenting stress.

Based on this research, the conceptualization of parenting stress was related to multiple indicators which encompass several interrelated factors embedded in the individual's ecosystem. The findings of this study strongly suggest that a family interacts with various components in

the environment in order to exchange resources for needed adaptation during the transition to parenthood. The concept of interdependence and interrelatedness between husband and wife was especially evident in the current study. A husband's responses to the various variables were associated with those of his spouse and vice versa. Family adaptation, therefore, involves individual members, the family as a whole, as well as the interactions with each other. The fact that the FITL program involved both husband and wife as well as their young child best illustrates the point that family is an integrated system of relationships. Strengthening each component in the family system is extremely important in the adaptation and transition to parenthood. A change in one component will have an effect on others. Transition to parenthood not only affects the parent-child domain but also affects other relationship systems, such as marital relationship, and relationship between family members and relatives and friends in the broader context.

The ecological model provides an essential framework to the understanding of family adaptation when a new member is added to the system. Furthermore, it provides a guideline in the development of intervention programs.

Implications for Practice

The findings of the present study were useful in describing the individuals and families participating in the study. The results provide valuable information to new

parents and parenting program developers. Knowledge of the positive and negative personal and marital changes associated with parenthood and the effect of the FITL experience seem particularly relevant to educators in providing realistic parenthood education to new parents. It is important to help parents to recognize the potential negative and difficult changes as well as the positive experiences that accompany the transition to parenthood. New parents also need to learn about the possible gender differences in perception of these changes in order to help themselves and their spouses to learn about these differences and to empathize with each other in coping with these changes in constructive ways.

The present study also points out that transition to parenthood is a couple experience and that couples are working together as a team. This can be emphasized and developed during the process of transition. The fact that the FITL experience had a positive impact on the marital relationship of participants further highlights the importance of having couples participate together. Fathers' participation in the parenting program perhaps can not eliminate all the tension and uncertainty that may exist. However, participation in such program may help facilitate fathers' adjustment to fatherhood by providing realistic expectations about infant, about the role fathers play in the new triad, and the changing nature of marital relationship. It was illustrated by the findings of the

present study that after the FITL experience, the participating fathers gained competence in their parenting skills, marital adjustment, as well as their knowledge in child development, which, in turn, contributed to the mothers' sense of support and happiness in marriage and helped to combat parenting stress.

The results of the current research illuminate the potential effectiveness and the need for parent education programs for all families even those without previous identified risks. This type of program should be available to a majority of families. More funding for programs of this nature is needed since without help from business and government support, couples have to make this difficult transition on their own. Without the necessary support, new parents are very vulnerable to strain and stress during the transition period to parenthood.

The FITL program can serve as a model and as an integral part of many community settings, such as day care centers, schools, libraries, community centers, churches, and hospitals. The FITL program is valuable in training educators and early childhood professionals due to its philosophy and holistic approach.

The findings of this study perhaps are useful for counselors and family therapists in understanding the dynamics of various relationship systems and the vulnerability of these systems during the period of transition to parenthood. This is a time when support is

extremely important and assistance to enhance the marital bond is needed. Furthermore, techniques to facilitate marital communication and to reduce parenting stress are welcomed. Finally, professionals need to help families to identify and evaluate the individual and environmental resources available to them in alleviating stress that is associated with parenthood.

APPENDICES

APPENDIX A

Dear Parents:

Enclosed are two separate packets of questionnaires. Each packet contains the following measurements:

Parent Profile
Dyadic Adjustment Scale
Parenting Stress Index
Parental Knowledge of Development
Maternal Social Support Index

As part of the Family Infant Toddler Learning Program, we are looking for various factors that associate with parenting. We are interested in comparing the initial responses made by you and your spouse in various situations related to parenthood. It is important for you and your spouse to fill out the questionnaires separately. There are separate packets that are marked with "mother" and "father" for each of you to respond to individually.

Since we are only interested in your initial responses, discussion or consulting with any other information source is not advised. There are no right or wrong answers to these materials and you are requested to respond to your own feelings or perceptions to each question. Your responses and the information obtained from the questionnaires will remain in strict confidence and be used for information purposes only.

We appreciate your participation in the program. Thank you for your cooperation in taking time to complete these questionnaires.

Sincerely,



Elaine Williams, Coordinator
Family/Infant-Toddler Learning Program

APPENDIX B

PLEASE NOTE

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

**Appendix B
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**Appendix C
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**Appendix D
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**Appendix E
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**NOTE
SPECIAL FILMING
INSTRUCTIONS**

SEE DATA SHEET

DYADIC ADJUSTMENT SCALE

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list. (Place a checkmark✓ to indicate your answer.

	<u>Always</u> <u>Agree</u>	<u>Almost</u> <u>Always</u> <u>Agree</u>	<u>Occa-</u> <u>sionally</u> <u>Disagree</u>	<u>Fre-</u> <u>quently</u> <u>Disagree</u>	<u>Almost</u> <u>Always</u> <u>Disagree</u>	<u>Always</u> <u>Disagree</u>
1. Handling family finances	_____	_____	_____	_____	_____	_____
2. Matters of recreation	_____	_____	_____	_____	_____	_____
3. Religious matters	_____	_____	_____	_____	_____	_____
4. Demonstrations of affection	_____	_____	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____	_____	_____
7. Conventionality (correct or proper behavior)	_____	_____	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____	_____	_____
9. Ways of dealing with parents or in-laws	_____	_____	_____	_____	_____	_____
10. Aims, goals, and things believed important	_____	_____	_____	_____	_____	_____
11. Amount of time spent together	_____	_____	_____	_____	_____	_____
12. Making major decisions	_____	_____	_____	_____	_____	_____
13. Household tasks	_____	_____	_____	_____	_____	_____
14. Leisure time interests and activities	_____	_____	_____	_____	_____	_____
15. Career decisions	_____	_____	_____	_____	_____	_____

	<u>All the time</u>	<u>Most of the time</u>	<u>More often than not</u>	<u>Occa- sionally</u>	<u>Rarely</u>	<u>Never</u>
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?						
17. How often do you or your mate leave the house after a fight?						
18. In general, how often do you think that things between you and your partner are going well?						
19. Do you confide in your mate?						
20. Do you ever regret that you married? (or lived together)						
21. How often do you and your partner quarrel?						
22. How often do you and your mate "get on each others' nerves?"						
		<u>Every Day</u>	<u>Almost Every Day</u>	<u>Occa- sionally</u>	<u>Rarely</u>	<u>Never</u>
23. Do you kiss your mate?						
		<u>All of Them</u>	<u>Most of Them</u>	<u>Some of Them</u>	<u>Very Few of Them</u>	<u>None of Them</u>
24. Do you and your mate engage in outside interests together?						
How often would you say the following events occur between you and your mate?						
	<u>Never</u>	<u>Less Than Once a Month</u>	<u>Once or Twice a Month</u>	<u>Once or Twice a Week</u>	<u>Once a Day</u>	<u>More Often</u>
25. Have a stimulating exchange of ideas						

	<u>Never</u>	<u>Less Than Once a Month</u>	<u>Once or Twice a Month</u>	<u>Once or Twice a Week</u>	<u>Once a Day</u>	<u>More Often</u>
26. Laugh together	_____	_____	_____	_____	_____	_____
27. Calmly discuss something	_____	_____	_____	_____	_____	_____
28. Work together on a project	_____	_____	_____	_____	_____	_____

These are some things about which couples sometimes agree and sometimes disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

Yes No

29. _____ Being too tired for sex.

30. _____ Not showing love.

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

Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect
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32. Which of the following statements best describes how you feel about the future of your relationship?

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

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

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

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

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

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

APPENDIX C

MATERNAL SOCIAL SUPPORT INDEX (MSSI)

Date Completed: _____

please share with us the things you do in your home as a mother by answering the questions below. Check the answer you feel is true for you.

	<u>No One</u>	<u>I Generally Do It</u>	<u>Generally Someone Else Does It</u>	<u>Someone Else and I Do It</u>	<u>Score</u>
1. Who fixes meals?	_____	_____	_____	_____	0
2. Who does the grocery shopping?	_____	_____	_____	_____	0
3. Who lets your children know what is right or wrong?	_____	_____	_____	_____	0
4. Who fixes things around the house or apartment?	_____	_____	_____	_____	0
5. Who does the inside cleaning?	_____	_____	_____	_____	0
6. Who works outside around the house or apartment?	_____	_____	_____	_____	0
7. Who pays the bills?	_____	_____	_____	_____	0
8. Who takes your child to the doctor if he/she is sick?	_____	_____	_____	_____	0
9. Who sees to it that your children go to bed?	_____	_____	_____	_____	0
10. Who takes care of car problems on short notice (if appropriate)?	No Car _____	_____	_____	_____	0
11. If no car, can you get one in a few hours if needed?	Yes _____ No _____			0	0

For the remainder of the questionnaire, please CIRCLE the answer that is true for you.

12. How many relatives do you see once a week or more often?	
0 1 2 3 4 5 6 7 8 9 10 or more	6
13. Would you like to see relatives:	
More often Less often It's about right	6
14. How many people can you count on in times of need?	
0 1 2 3 4 5 6 7 8 9 10 or more	6

Please CIRCLE the answer that is true for you.

15. How many people would be able to take care of your children for several hours if needed:

0 1 2 3 4 5 6 7 8 9 10 or more

15a. How many of these people are from your neighborhood?

None Some Most All

16. Do you have a boyfriend or husband? Yes No

17. If yes, how happy are you in the way your boyfriend or husband lets you know what he feels or thinks?

Very Happy Happy Unhappy Very Unhappy

18. Are there adults, not including your boyfriend or husband, with whom you have regular talks?

Yes No

19. If yes, think about the person you talk with the most. Are you happy with the talks that you have with this person?

Very Happy Happy Unhappy Very Unhappy

20. How often do you attend meetings of the following groups?

A. Religious (e.g. church)	Don't Belong	Attend Less Than Once A Month	Attend About Once A Month	Attend More Than Once A Month
B. Educational (e.g. school, parent groups)	Don't Belong	Less Than Once A Month	About Once A Month	More Than Once A Month
C. Social (e.g. bowling groups, scouting groups)	Don't Belong	Less Than Once A Month	About Once A Month	More Than Once A Month
D. Political (e.g. work for local candidate)	Don't Belong	Less Than Once A Month	About Once A Month	More Than Once A Month
E. Other: _____	Don't Belong	Less Than Once A Month	About Once A Month	More Than Once A Month

21. Are you a member of any committee or do you have any other duties in any of your groups?

Yes No

Total Score

APPENDIX D

PARENTAL KNOWLEDGE OF DEVELOPMENT

Please indicate at what month/week you expect your child to attain the following skills. By attain, we mean be able to do this task regularly, rather than on a random, once in a while basis.

Child pulls self up to standing position

Child moves from place to place by creeping/crawling

Child lifts head while lying on stomach

Child walks 3-5 steps unassisted

Child smiles in response to mother's/father's face

Child speaks in phrases of 2-3 words

Child rolls over unassisted

Child eats strained food

Child says first recognizable word

Child sits up without support

Appropriate age to begin teaching self-toileting

Child is able to eat finger foods

Child masters self-toileting skill (2 or less accidents per day)

Child stands alone without support.

APPENDIX E

1
Strongly
Agree

2
Agree

3
Not
Sure

4
Disagree

5
Strongly
Disagree

1. When my child wants something, my child usually keeps trying to get it.
2. My child is so active that it exhausts me.
3. My child appears disorganized and is easily distracted.
4. Compared to most, my child has more difficulty concentrating and paying attention.
5. My child will often stay occupied with a toy for more than 10 minutes.
6. My child wanders away much more than I expected.
7. My child is much more active than I expected.
8. My child squirms and kicks a great deal when being dressed or bathed.
9. My child can be easily distracted from wanting something.
10. My child rarely does things for me that make me feel good.
11. Most times I feel that my child likes me and wants to be close to me.
12. Sometimes I feel my child doesn't like me and doesn't want to be close to me.
13. My child smiles at me much less than I expected.
14. When I do things for my child I get the feeling that my efforts are not appreciated very much.
15. Which statement best describes your child?
 1. almost always likes to play with me,
 2. sometimes likes to play with me,
 4. usually doesn't like to play with me,
 5. almost never likes to play with me.
16. My child cries and fusses:
 1. much less than I had expected,
 2. less than I expected,
 3. about as much as I expected,
 4. much more than I expected,
 5. it seems almost constant.
17. My child seems to cry or fuss more often than most children.
18. When playing, my child doesn't often giggle or laugh.
19. My child generally wakes up in a bad mood.
20. I feel that my child is very moody and easily upset.
21. My child looks a little different than I expected and it bothers me at times.
22. In some areas my child seems to have forgotten past learnings and has gone back to doing things characteristic of younger children.

1
Strongly
Agree

2
Agree

3
Not
Sure

4
Disagree

5
Strongly
Disagree

23. My child doesn't seem to learn as quickly as most children.
24. My child doesn't seem to smile as much as most children.
25. My child does a few things which bother me a great deal.
26. My child is not able to do as much as I expected.
27. My child does not like to be cuddled or touched very much.
28. When my child came home from the hospital, I had doubtful feelings about my ability to handle being a parent.
29. Being a parent is harder than I thought it would be.
30. I feel capable and on top of things when I am caring for my child.
31. Compared to the average child, my child has a great deal of difficulty in getting used to changes in schedules or changes around the house.
32. My child reacts very strongly when something happens that my child doesn't like.
33. Leaving my child with a babysitter is usually a problem.
34. My child gets upset easily over the smallest thing.
35. My child easily notices and overreacts to loud sounds and bright lights.
36. My child's sleeping or eating schedule was much harder to establish than I expected.
37. My child usually avoids a new toy for a while before beginning to play with it.
38. It takes a long time and it is very hard for my child to get used to new things.
39. My child doesn't seem comfortable when meeting strangers.
40. When upset, my child is:
 1. easy to calm down,
 2. harder to calm down than I expected,
 4. very difficult to calm down,
 5. nothing I do helps to calm my child.
41. I have found that getting my child to do something or stop doing something is:
 1. much harder than I expected,
 2. somewhat harder than I expected,
 3. about as hard as I expected,
 4. somewhat easier than I expected,
 5. much easier than I expected.

1
Strongly
Agree

2
Agree

3
Not
Sure

4
Disagree

5
Strongly
Disagree

42. Think carefully and count the number of things which your child does that bothers you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc. Please fill in the number which includes the number of things you counted.
1. 1-3
 2. 4-5
 3. 6-7
 4. 8-9
 5. 10+
43. When my child cries it usually lasts:
1. less than 2 minutes,
 2. 2-5 minutes,
 3. 5-10 minutes,
 4. 10-15 minutes,
 5. more than 15 minutes.
44. There are some things my child does that really bother me a lot.
45. My child has had more health problems than I expected.
46. As my child has grown older and become more independent, I find myself more worried that my child will get hurt or into trouble.
47. My child turned out to be more of a problem than I had expected.
48. My child seems to be much harder to care for than most.
49. My child is always hanging on me.
50. My child makes more demands on me than most children.
51. I can't make decisions without help.
52. I have had many more problems raising children than I expected.
53. I enjoy being a parent.
54. I feel that I am successful most of the time when I try to get my child to do or not do something.
55. Since I brought my last child home from the hospital, I find that I am not able to take care of this child as well as I thought I could. I need help.
56. I often have the feeling that I cannot handle things very well.
57. When I think about myself as a parent I believe:
1. I can handle anything that happens,
 2. I can handle most things pretty well,
 3. sometimes I have doubts, but find that I handle most things without any problems,
 4. I have some doubts about being able to handle things,
 5. I don't think I handle things very well at all.

1
Strongly
Agree

2
Agree

3
Not
Sure

4
Disagree

5
Strongly
Disagree

58. I feel that I am:

1. a very good parent,
2. a better than average parent,
3. an average parent,
4. a person who has some trouble being a parent,
5. not very good at being a parent.

59. What were the highest levels in school or college you and the child's father/mother have completed?
Mother:

1. 1-8th grade
2. 9-12th grade
3. Vocational or some college
4. College graduate
5. Graduate or professional school

60. Father:

1. 1-8th grade
2. 9-12th grade
3. Vocational or some college
4. College graduate
5. Graduate or professional school

61. How easy is it for you to understand what your child wants or needs?

1. very easy,
2. easy,
3. somewhat difficult,
4. it is very hard,
5. I usually can't figure out what the problem is.

62. It takes a long time for parents to develop close, warm feelings for their children.

63. I expected to have closer and warmer feelings for my child than I do and this bothers me.

64. Sometimes my child does things that bother me just to be mean.

65. When I was young, I never felt comfortable holding or taking care of children.

66. My child knows I am his or her parent and wants me more than other people.

67. The number of children that I have now is too many.

68. Most of my life is spent doing things for my child.

69. I find myself giving up more of my life to meet my children's needs than I ever expected.

70. I feel trapped by my responsibilities as a parent.

71. I often feel that my child's needs control my life.

72. Since having this child I have been unable to do new and different things.

1	2	3	4	5
Strongly	Agree	Not	Disagree	Strongly
Agree		Sure		Disagree

73. Since having a child I feel that I am almost never able to do things that I like to do.
74. It is hard to find a place in our home where I can go to be by myself.
75. When I think about the kind of parent I am, I often feel guilty or bad about myself.
76. I am unhappy with the last purchase of clothing I made for myself.
77. When my child misbehaves or fusses too much I feel responsible, as if I didn't do something right.
78. I feel everytime my child does something wrong it is really my fault.
79. I often feel guilty about the way I feel towards my child.
80. There are quite a few things that bother me about my life.
81. I felt sadder and more depressed than I expected after leaving the hospital with my baby.
82. I wind up feeling guilty when I get angry at my child and this bothers me.
83. After my child had been home from the hospital for about a month, I noticed that I was feeling more sad and depressed than I had expected.
84. Since having my child, my spouse (male/female friend) has not given me as much help and support as I expected.
85. Having a child has caused more problems than I expected in my relationship with my spouse (male/female friend).
86. Since having a child my spouse (or male/female friend) and I don't do as many things together.
87. Since having my child, my spouse (or male/female friend) and I don't spend as much time together as a family as I had expected.
88. Since having my last child, I have had less interest in sex.
89. Having a child seems to have increased the number of problems we have with in-laws and relatives.
90. Having children has been much more expensive than I had expected.
91. I feel alone and without friends.
92. When I go to a party I usually expect not to enjoy myself.
93. I am not as interested in people as I used to be.
94. I often have the feeling that other people my own age don't particularly like my company.
95. When I run into a problem taking care of my children I have a lot of people to whom I can talk to get help or advice.

1
Strongly
Agree

2
Agree

3
Not
Sure

4
Disagree

5
Strongly
Disagree

96. Since having children I have a lot fewer chances to see my friends and to make new friends.
97. During the past six months I have been sicker than usual or have had more aches and pains than I normally do.
98. Physically, I feel good most of the time.
99. Having a child has caused changes in the way I sleep.
100. I don't enjoy things as I used to.
101. Since I've had my child:
1. I have been sick a great deal,
 2. I haven't felt as good,
 4. I haven't noticed any change in my health,
 5. I have been healthier.

STOP HERE — unless asked to do items below

During the last 12 months, have any of the following events occurred in your immediate family? Please check on the answer sheet any that have happened.

102. Divorce
103. Marital reconciliation
104. Marriage
105. Separation
106. Pregnancy
107. Other relative moved into household
108. Income increased substantially (20% or more)
109. Went deeply into debt
110. Moved to new location
111. Promotion at work
112. Income decreased substantially
113. Alcohol or drug problem
114. Death of close family friend
115. Began new job
116. Entered new school
117. Trouble with superiors at work
118. Trouble with teachers at school
119. Legal problems
120. Death of immediate family member

APPENDIX F

DESCRIPTION OF THE PSI SUBSCALES

I. Child Characteristics Domain:

CD1 refers to Adaptability/Plasticity which is Child Domain Subscale 1.

CD2 refers to Acceptability of Child to Parent which is Child Domain Subscale 2.

CD3 refers to Child Demandingness/Degree of Bother which is Child Domain Subscale 3.

CD4 refers to Child Mood which is Child Domain Subscale 4.

CD5 refers to Child Distractibility/Hyperactivity which is Child Domain Subscale 5.

CD6 refers to Child Reinforces Parent which is Child Domain Subscale 6.

II. Parent Characteristics Domain:

PD1 refers to Parent Depression, Unhappiness, Guilt which is Parent Domain Subscale 1.

PD2 refers to Parent Attachment which is Parent Domain Subscale 2.

PD3 refers to Restrictions Imposed by Parental Role which is Parent Domain Subscale 3.

PD4 refers to Parent's Sense of Competence which is Parent Domain Subscale 4.

PD5 refers to Social Isolation which is Parent Domain Subscale 5.

PD6 refers to Relationship with Spouse which is Parent Domain Subscale 6.

PD7 refers to Parental Health which is Parent Domain Subscale 7.

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