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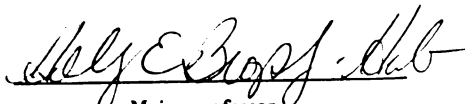


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**MATERNAL CHARACTERISTICS: THEIR RELATIONSHIP TO SOCIAL SUPPORT
AND ITS EFFECT ON MOTHER-INFANT INTERACTIONS**

By

Lisa B. Cusick

A THESIS

**Submitted to
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ABSTRACT

MATERNAL CHARACTERISTICS: THEIR RELATION TO SOCIAL SUPPORT AND ITS EFFECT ON MOTHER-INFANT INTERACTIONS

By

Lisa B. Cusick

This study investigated how the amount of mothers' perceived social support differed as a function of maternal age, educational level, and marital status. Further, the present research explored the relationship between the amount of perceived support for mothers and the quality of mothers' interactions with their infants. Data for this study were taken from a local research component of a national longitudinal evaluation study of Early Head Start and the sample consisted of 100 low income mothers. Analysis of variance indicated a significant difference in perceived social support for younger and older mothers. However, the amount of perceived support did not differ significantly as a function of maternal marital status or education. Pearson correlations found no significant relationship between maternal social support and quality of mother-infant interactions. Results of the statistical analyses as well as the implications of the findings are discussed.

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Dedicated to the memory of my grandfather, James C. Roberts, and to
my great-grandfather, Lloyd H. Reed

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INTRODUCTION

Numerous studies over the past twenty years have addressed issues of social support and the ameliorative effects of social support on stressful life events (e.g., Cobb, 1976; Cohen & Wills, 1985; Gottlieb, 1985; Thoits, 1982). Specifically, many researchers have studied mothers following the birth of a child, examining their support networks and the relationship of these networks to the quality of mother-infant interaction (e.g., Crockenberg, 1981; Crnic et al., 1984; Cutrona, 1984; Parks, Lenz, & Jenkins, 1992; Pascoe & Earp, 1984). These studies have shown that the birth of a child can bring about changes and an increase in stress in the lives of family members (e.g., greater financial expense, less time to spend alone, altered sleep patterns, additional household and caretaking responsibilities) and that having a responsive support network may help the mother through this major life transition. After studying new mothers and their available support, researchers found that those who perceived their social support network as adequate and less conflictual could find occasional, temporary relief from child care responsibilities, household tasks, and additional stressors when they needed it (e.g., Camp, Holman, & Ridgway, 1993; Colletta & Gregg, 1981; Cutrona, 1984). In turn, this support tended to lead to increased quality of interactions between mothers and their infants.

Much of the current social support literature has focused on the structural characteristics of the maternal support network (e.g., size of network, density of network, type of support provided) while neglecting the personal characteristics of the mother, such as age, marital status, and educational level. Of the studies that do examine

maternal personal characteristics, the majority of attention has focused on the association of maternal age to social network structure (e.g., Boger et al., 1986; Colletta, 1981; Cooper, Dunst, & Vance, 1990; Garcia Coll et al., 1987; Richardson, Barbour, & Bubenzer, 1995; Voight, Hans, & Bernstein, 1996). Other maternal personal characteristics (e.g., educational level, marital status) may also play equally important roles in determining mothers' ability to develop and maintain resourceful support networks. Furthermore, the age, educational level, and marital status of the mother could increase the stressors brought about by the birth of a child. Ecologically, maternal characteristics and social support networks play reciprocal, dynamic roles in the parenting process over time. It is important to examine these variables, as they are in continuous interaction with each other, and they help create the context in which mothers and infants grow and develop.

Problem Statement

This study proposed to examine if the number of situations in which mothers perceived they had access to social support varied as a function of maternal personal characteristics and, in turn, if perceived maternal social support related to the quality of the mother-infant relationship. Specifically, this study examined the relationship of maternal age, educational level, and marital status on perceived maternal social support, as well as the relationship between the amount of perceived maternal social support and the quality of mother-infant interaction.

Conceptual and operational definitions

The dependent variable, *mother-infant interaction*, was conceptually defined as the quality of maternal physical, emotional, and verbal warmth and responsiveness to infant cues. The definition of mother-infant interaction has been operationalized using the Teaching Scale of the Nursing Child Assessment Satellite Training (NCAST). This scale consists of six subscales in the areas of: Sensitivity to Cues, Response to Distress, Social-Emotional Growth Fostering, Cognitive Growth Fostering (parenting subscales), and Responsiveness to Parent and Child Clarity of Cues (infant subscales).

The first group of independent variables, *maternal characteristics*, was defined as the age of the mother, the highest educational level the mother had completed, and the marital status of the mother. This information was obtained through initial interviews and surveys conducted by a local social service agency.

The second independent variable, *perceived social support*, was defined as the number of situations in which mothers perceive they have access to social support in times of need. Interviews were conducted and mothers were asked questions on the Maternal Social Support Survey (Appendix A). For the purposes of the present study, perceived social support was defined as feeling one has access to at least one person who could lend assistance in the following situations: feelings of anxiety, emergency loans, long-term child care, child care on short notice, important decisions, advice about a child's unusual behavior, advice about a child's illness, food shopping, planning and cooking meals, cleaning the house, handling the bills, and emotional support (e.g., comforting, talking, having fun).

Review of Literature

Transition to Parenthood

Becoming a parent is a major life transition that frequently brings about considerable change and stress in the lives of mothers and family members (Flowers, Schneider, & Ludtke, 1996; Parks, Lenz, & Jenkins, 1992; Thomas et al., 1990). These changes and stressors can include altered sleeping patterns, fatigue, less time for self, greater financial expense, and additional household and caretaking responsibilities (Parks, Lenz, & Jenkins, 1992). Furthermore, clusters of demographic characteristics of the mother (i.e., young, single, low educational level) can make the birth of a child even more of a stressful life event. These clusters may affect the quality of the nurturing interactions between the mother and her infant (Boger, Richter, Kurnetz, & Haas, 1986; Colletta & Gregg, 1981; Garcia Coll, Hoffman, & Oh, 1987; Garcia Coll et al., 1987; Thomas et al., 1990). For example, an adolescent parent who may have limited material support and possible inadequate knowledge of infant development (Field et al., 1980; Garcia Coll et al., 1987; Reis, 1988) may have particular difficulty in coping with the responsibilities of being a new mother (Boger et al., 1986). Moreover, adolescent mothers are often single mothers and many single, adolescent mothers experience extreme financial pressures. These pressures create situations in which mothers and their babies are far more likely to live in poverty than are older, married mothers (Thomas et al., 1990). In addition, young mothers often drop out of school and stay at home with their babies, resulting in less educational attainment (Thomas et al., 1990). Garcia Coll and her colleagues (1987) also found that adolescent mothers, in general, tend to have

lower levels of education and lower family socioeconomic status (SES) than older mothers. Older single parents, like adolescent mothers, often experience decreased financial resources, chaotic or disorganized lives, increased daily stresses, and task overloads (Weinraub & Wolf, 1983). These mothers may also encounter time constraints, reduced educational opportunities, and lower occupation status (Flowers, Schneider, & Ludtke, 1996). Research has provided evidence that many new parents experience shifts in the balance between life stresses and social support in adjusting to the birth of a new baby (Cowan & Cowan, 1995).

Social Support

A number of studies over the past two decades have addressed issues of social support and the effects that social support has on minimizing harmful impacts of stressful life events (e.g., Cobb, 1976; Gottlieb, 1985). Sidney Cobb (1976), John Cassel (1976) and Gerald Caplan (1976) conducted considerable work on social support, laying the groundwork for contemporary research in this area. Cobb defined social support as information leading an individual to believe that he or she is cared for, loved, esteemed, valued, and has membership in a network of communication and mutual obligation. Furthermore, Cobb (1976) discussed social support as a mechanism which facilitates adaptation to change, and he proposed that it is in moderating the effects of major life transitions and of unexpected crises that the effects of social support should be found. He concluded that adequate social support can protect people in crisis from various physical and psychological disorders, presumably through the facilitation of coping and adaptation. Similarly, Cassel (1976) argued that social support plays a key role in stress-related disorders. He, like Cobb, viewed support as an important protective factor against

stressful experiences. Caplan (1976) also emphasized the importance of support systems in protecting the well-being of individuals, as well as the importance of various different types of support.

This assistance that social support may provide individuals coping with major life changes has also been termed the 'buffering hypothesis' (Cohen & Wills, 1985; Thoits, 1982). This hypothesis involves an interaction effect between the occurrence of events and the presence of social support. Specifically, the development of a major life transition should produce less distress for an individual if it occurs within the presence of social support than if it occurs in the absence of social support (Thoits, 1982). Being embedded in a social network that is responsive to stressful events may have beneficial effects on an individual's well-being (Cohen & Wills, 1985). However, the effects of social support may only be evident when high levels of stress are experienced. A study of 30 two-parent families, examining stressful life events and social networks, found that the effects of stress and social support were most apparent in those groups experiencing the highest levels of stress, while these buffering effects were less pronounced when the stress levels were lower (Roberts, 1989).

Social support theorists have continued to build upon the original social support model proposed by Cobb (1976). Over time, studies have addressed the interactional influences of the structure of support networks (e.g., size, density, diversity), the availability of support, various types of support, and the relationship between major life transitions (e.g., the birth of a child), psychological distress, and social support (see Adamakos, et al., 1986; Crockenberg, 1981; Feiring et al., 1987; Levitt, Weber, & Clark,

1986; Nitz, Ketterlinus, & Brandt, 1995; Reece, 1993; Schilmoeller, Baranowski, & Higgins, 1991; Unger & Wasserman, 1988; Voight, Hans, & Bernstein, 1996).

Structure of the Support Network

Stressful events and major life transitions may cause changes among an individual's social supports. Therefore, according to Thoits (1982), the structure of the support network is an important dimension in determining the effectiveness of an individual's social support. Social support can be examined with respect to the structure of an individual's social network. Vaux (1988) points out that important structural features include size (the number of individuals included in the social network) and density (the interconnectedness of individuals in the social network). Vaux (1988) listed five reasons why larger networks may provide more supportive behaviors than smaller support networks: accessibility, stamina, expertise, information, and perspective. Accessibility refers to how likely members are to receive help; specifically, the larger the network, the easier it will be to contact someone in a time of need, whereas all members of a smaller support network may be temporarily unavailable. If an individual has more network members to call on, he or she is less likely to put too many excessive demands on one particular person, and thus will possess considerably more stamina. A larger support network is more likely to contain a member with specific expertise in a given area (e.g., parenting, applying for a job, household tasks). Similarly, a larger network is more likely to be an abundant source of information. Finally, when a problem or issue arises, a larger network should provide a wider variety of perspectives. Overall, with regard to network size, it appears as though larger support networks are more likely to meet the diverse needs of individuals going through major life transitions.

Maternal Characteristics and Social Support

Much of the research to date has concentrated primarily on the structural characteristics of the support network, placing less emphasis on the personal characteristics of the individual needing the support. Social support is a complex, ongoing, transactional process between the characteristics of the individual and the composition of that individual's social network (Vaux, 1988). Research examining personal characteristics of individuals needing support has mainly focused on such personal factors, as social skills, extroversion, and social attractiveness and has demonstrated that these characteristics contribute to an individual's ability to form and maintain a support network (see Vaux, 1988). An individual with adequate personal resources, for example, may be able to cope with stressors quite well independently and, simultaneously, find him- or herself in a favorable position in the development and maintenance of a large, resourceful network. Vaux (1988) points out, conversely, that an individual with limited personal resources may face more intense stressors which he or she is poorly equipped to handle, while having difficulty maintaining a small support network. In a similar vein, Younger (1991) suggested that the composition of one's social support network may be formed by one's personality characteristics, and the ability to utilize the strengths of others in dealing with stress, may also depend on an individual's personality characteristics.

Certain personal characteristics in certain contexts may play a role in determining the amount and type of support an individual receives. For example, during a time of need, some members of a support network may recognize problems as they arise and immediately provide assistance without hesitation. If, however, this does not occur, the

individual in need must actively seek out and request assistance from the network. Furthermore, the person needing support must also decide what amount and kind of support would be most helpful, as well as who the best person is to provide what is needed (Vaux, 1988).

Other personal demographic characteristics such as education level, age, and marital status may dramatically influence the success an individual experiences in attempting to maximize support resources, however these personal characteristics have been highly neglected in the literature. A study by Eckenrode (1983) found that women of relatively high educational level obtained more support in dealing with life stressors. Further, Riley and Eckenrode (1986) found that support mobilization (e.g., the average number of persons helpful across numerous life events) was associated with less negative affect in women with higher educational levels and greater family income. In contrast, women with less education and lower family income had more negative affect. Women with adequate educational and income resources were able to mobilize more support and were better able to translate both network resources and psychological resources into actual support. When this increase in support occurred, the women tended to exhibit less negative affect (Riley & Eckenrode, 1986).

A limited number of studies have examined effects of age and marital status on mothers' ability to form and maintain adequate social support networks. One study by Crnic and his colleagues (1984) found that certain demographic characteristics influenced maternal perceptions of social support relationships. In their study of mothers ranging in age from 16 to 38, mothers who were younger, unmarried, and receiving some sort of public assistance were more likely to report greater stress and less social support.

Effects of Social Support on Maternal Stress

Research has indicated that the social support mothers receive may, in many instances, reduce the amount of stress experienced in the parenting role. A study by Camp, Holman, and Ridgway (1993) examined the relationship between stress and social support in 62 adolescent mothers and found that after the mothers gave birth to their infants, positive social support tended to be associated with fewer stressors. In a related study, Colletta and Gregg (1981) interviewed 64 African American adolescent mothers. Their results revealed that the amount of emotional stress experienced by those mothers decreased as the levels of support and personal resources increased, supporting the conclusion that social support for adolescent mothers tends to be the single most important predictor of the adolescent mother's stress reaction (Colletta & Gregg, 1981).

Social Support and Parenting Behaviors

The influence of social support on the quality of interaction between mothers and their infants has also been examined. In a study of 105 mother-infant pairs, Crnic and colleagues (1983) uncovered a positive relationship between support from intimate relationships and both parenting satisfaction and interactive behavior. Similarly, results of a study done by Cooper, Dunst, and Vance (1990) showed significant effects of social support on adolescent mothers' styles of mother-infant interaction. Mothers displayed significant increases in the frequency of contingent responses to their young children's behavior. In addition, they made more attempts to maintain the child's ongoing play both with animate and inanimate objects. Results of a study by Parks, Lenz, and Jenkins (1992) revealed a positive relationship between social support and quality of stimulation in the home environment for 6-month-old infants.

Investigating a sample of 50 adolescent mothers, Colletta (1981) found that variations in the amount, sources, and types of support affected the maternal behavior of these mothers. Emotional support was most highly related to the adolescent's maternal role behavior. Colletta noted that when young mothers feel alone during the stressful transition to motherhood, and if they have no one to talk to about their frustrations, they may direct those frustrations in inappropriate ways toward their children. However, when a particular mother is embedded in supportive social networks, she is "likely to receive sufficient encouragement, reinforcement, and assistance to provide her with the emotional resources to enable her to discharge her maternal role in a warm and loving manner" (Colletta, 1981, p. 196).

In related work, Burchinal, Follmer, and Bryant (1996) looked at low-income African American families and discovered that the size of African American women's social networks was correlated with aspects of maternal caregiving behavior and the quality of stimulation in the home. Specifically, women with larger support networks tended to provide more stimulating home environments. In addition, mothers with larger support networks were more responsive, accepting, involved with, and less directive in controlling their child's behavior. These researchers suggested that a direct relationship between maternal social networks and parenting may exist because, through contact with a support network that lends advice and assistance with the responsibilities of parenthood, mothers often develop feelings of competence and satisfaction with their maternal roles (Burchinal, Follmer, & Bryant, 1996).

The Current Study

This study explored demographic characteristics and social support networks of mothers going through a major life transition. Specifically, mothers' perceived social support was examined to determine if it varied as a function of maternal age, educational level, and marital status. Furthermore the number of situations in which mothers perceive they had support was analyzed to determine its relationship to the quality of mother-infant interactions.

Hypotheses

The overall purpose of this research was to look for a relationship between maternal demographic characteristics (age, educational level, marital status) and the number of situations in which mothers perceive they have support, as well as a relationship between perceived maternal social support and the quality of mother-infant interactions.

In order to accomplish these objectives, the following hypotheses were tested.

Hypothesis 1: The number of situations in which low income mothers perceive they have at least one person to lend support varies as a function of age.

Hypothesis 2: The number of situations in which low income mothers perceive they have at least one person to lend support varies as a function of marital status.

Hypothesis 3: The number of situations in which low income mothers perceive they have at least one person to lend support varies as a function of educational level.

Hypothesis 4: There is a relationship between perceived maternal social support and the quality of interactions between low income mothers and their infants.

Decision Rule: a decision rule with a chance probability of $p \leq .05$ will be used.

Methods

Research Design

This study is a descriptive, correlational investigation of the relationships between maternal characteristics (age, educational level, marital status), maternal social support and mother-infant interaction. Data for this study are taken from the local research component of a national longitudinal evaluation study of Early Head Start (EHS).

Subjects

The subjects for the current study were 100 mothers, ranging in age from 15 to 38 years old, ($M = 22.57$, $SD = 4.82$). The majority of the sample were Caucasian (73%) and African American (14%), while the remaining 13 percent reported their racial status as Hispanic, Korean, Vietnamese, American Indian, Mexican, or Biracial. Sixty-five percent of the mothers were single, 19 percent were married, and 16 percent were either separated (4%) or divorced (12%). There was a wide variance in the mothers' education level. Four percent of mothers had less than a fifth grade education, 14 percent completed ninth grade, 13 percent completed tenth grade, 11 percent completed eleventh grade, and two percent completed twelfth grade without receiving a diploma. Thirty-three percent of mothers graduated from high school, 22 percent attended some college courses, and one percent had an Associate's degree. All mothers in the sample had incomes below the national poverty line.

Sampling Procedure and Data Collection

The sample for this secondary data analysis study represented a sub-sample of low SES status families (and subsequent replacements) participating in a national,

longitudinal evaluation of EHS. The research sample consisted of those families who (1) have had a child born between 9/1/95 and 6/30/97 who is younger than 12 months of age, (2) have not participated for 3 months or longer in the Comprehensive Child Development Program in the past 5 years, (3) have not participated for 3 months or longer in a Parent Child Center, Head Start, or a similar program in the past year, and (4) meet federal definitions of families who fall below the 100 percent poverty line. Eligible families were recruited through a local social service agency. Participating families were randomly assigned into a participant group or a comparison group by Mathematica, an independent research organization. Families in the participant group received services from Early Head Start while families in the comparison group did not receive EHS services but had access to other services offered by the community at large. For the purpose of this study, no attempt to compare or contrast these groups drawn from the same population was made. This study only examined the data collected for all families (both participant and comparison) during an initial home visit at the time of the families' enrollment.

Shortly after enrollment, a home visit was scheduled with each mother-infant pair by a trained data collector from the research team. Data collection was carried out at enrollment (or at the child's age of 1 month if enrolled during pregnancy) and at 14, 24, and 36 months of the child's age. Some families were also visited when the child was 6 months of age. The estimated time for the home visit was 1 to 2 ½ hours depending on the extent of data collection. During the home visit, a trained data collector conducted an interview with the mother about her perceived social support and observed the mother interacting with her infant during a teaching episode. The mother was asked to select a

task, unfamiliar to her infant, from a list of age-appropriate tasks and was then asked to teach the skill to her infant. Records (patient records and Head Start Family Information System (HSFIS) forms) were reviewed to collect additional demographics, service referral and use, and other pertinent data. Mothers received ten dollars as compensation.

Instrumentation

Mothers completed a demographic questionnaire, answering questions about their age, educational level, marital status, and annual income. Mothers also completed the Maternal Social Support Survey (Appendix A). This 19-item scale contained questions created by the research team designed to ascertain what types of situations mothers felt they had access to social support. A reliability analysis conducted on the Maternal Social Support Survey revealed a Cronbach alpha of .91 was found.

The dependent variable of mother-infant interaction was measured using the Teaching Scale of the Nursing Child Assessment Satellite Training (NCAST). The NCAST is a 73-item binary scale which is comprised of 4 parental subscales and 2 infant subscales (Barnard, 1978; Sumner & Speitz, 1994) and yields a total interaction score (sum of the scores on the subscales). The parental subscales are: Sensitivity to Cues, which consists of 11 items (with a Cronbach's alpha of .52); Response to Distress, 11 items (.80); Social-Emotional Growth Fostering, 11 items (.58) and Cognitive Growth Fostering, 17 items (.78). The infant subscales are: Clarity of Cues and Responsiveness to Caregivers. Thus, the total parent reliability score is .87, the total child score is .81, and the overall total score is .87. The parent summary score has an excellent internal consistency and a high test-retest reliability. Clinicians are trained to ensure an inter-rater reliability of .85 or better, while researchers must attain an even higher inter-rater

reliability of .92; data collectors undergo considerable training to ensure this reliability (Sumner & Speitz, 1994). The Teaching NCAST is regarded as a viable and respected measurement instrument with mother-infant dyads, and has proven useful in screening for dysfunctional interactions between high-risk infants and their mothers (Farel et al., 1991).

Data Analysis

The sample of 100 mothers in the current study was taken from the larger EHS sample of 182 mothers. Of the original 182 cases, 45 cases were deleted due to missing values for maternal age, 13 cases were deleted due to missing values for marital status, and 2 cases were deleted due to missing values for maternal educational level. In addition, 22 cases were dropped due to missing values for the NCAST and the Maternal Social Support Survey.

For the purposes of statistical analyses, maternal age was dichotomized into younger (ages 15-21) and older (22 or older) mothers. Fifty-three percent of mothers were identified as younger, while 47 percent were considered older. Other studies on adolescent and older mothers (i.e., Wasserman, Brunelli, & Rauh, 1990) have used similar age groupings to differentiate younger from older mothers. Maternal marital status was also dichotomized, with 19 percent of mothers being married and 81 percent of mothers either single, separated, or divorced. Maternal educational level was divided into mothers who did not complete high school (44%) and mothers who completed high school, had some college experience, or had a college degree (56%).

Results

Hypothesis 1

The first hypothesis of the current study speculated that the number of situations in which mothers perceived they had at least one person to provide support would vary significantly on the basis of age. A one-way ANOVA was used to test this hypothesis, with age (younger/older mothers) as the independent variable and the Maternal Social Support Survey as the dependent variable. The mean Maternal Social Support Survey scores for younger mothers ($M = 22.4$, $SD = 6.6$) differed significantly from older mothers ($M = 18.7$, $SD = 8.2$). Results of the ANOVA demonstrated a statistically significant difference in perceived social support for younger and older mothers and are presented in Table 1.

Table 1

One-Way ANOVA for Maternal Age and Perceived Social Support

AGE x SUPPORT	Sum of Squares	df	F	Probability
Between Groups	354.868	1	6.448	.013
Within Groups	5393.572	98		

Hypothesis 2

To test hypothesis 2 that perceive maternal social support varies as a function of marital status, another one-way ANOVA was performed. Maternal marital status (married/unmarried) was the independent variable and the Maternal Social Support Survey was the dependent variable. The demographic questionnaire used in the current

study did not uncover whether single mothers had a live in partner. The mean score on the social support survey for the married mothers was 20.4 (SD = 8.6), while the mean score for single mothers was 20.7 (SD = 7.4). Results of the ANOVA showed no significant difference in available social support for married and unmarried mothers. The results are provided in Table 2.

Table 2

One-Way ANOVA for Marital Status and Perceived Social Support

MARITAL x SUPPORT	Sum of Squares	df	F	Probability
Between Groups	1.994	1	.034	.854
Within Groups	5746.446	98		

Hypothesis 3

A one-way ANOVA was run to test the hypothesis that perceived maternal social support varied as a function of maternal educational level. Maternal educational level (more educated/less educated) was the independent variable and the Maternal Social Support Survey was the dependent variable. Mothers who did not graduate from high school had a mean social support score of 20.3 (SD = 8.1). Mothers who had higher educational attainment had a mean social support score of 20.9 (SD = 7.3). Results did not show a significant difference in available social support for mothers of different educational backgrounds. These results are found in Table 3.

Table 3**One-Way ANOVA for Educational Level and Perceived Social Support**

EDUCATE x SUPPORT	Sum of Squares	df	F	Probability
Between Groups	10.442	1	.178	.674
Within Groups	5737.998	98		

Hypothesis 4

The fourth hypothesis examined the relationship between mothers' perceived social support and the quality of interactions between mothers and their infants. Mothers' scores on the Maternal Social Support Survey and the total score on the NCAST Teaching measure were the variables used. A Pearson Correlation was performed to determine if there was a relationship between the two variables, and no statistically significant relationship was found ($r = -.076$, $p = .453$).

In an attempt to obtain more information about the current sample of mothers, the researcher ran a Pearson correlation with each of the variables in the current study (Table 4). Results indicated strong correlations between marital status and age, as well as between age and education. Findings also revealed a relationship between mothers' grade level completed and total NCAST scores. Other correlations were not significant. Future researchers should take into consideration the ways in which other variables might impact mother-infant interaction. The researcher also ran additional statistical analyses, reversing the independent and dependent variables, and no significant results were obtained.

Table 4

Correlations between Maternal Age, Marital Status, Education, NCAST Scores, and Perceived Social Support

Variable	1	2	3	4	5
1. Age	--	.396**	.404**	.137	-.183
2. Marital Status		--	.113	-.048	-.064
3. Education			--	.225*	.018
4. NCAST				--	-.076
5. Social Support					--

**Correlation significant at $p \leq .01$

*Correlation significant at $p \leq .05$

Discussion

Summary of findings

This study examined the variance of perceived maternal social support as a function of maternal age, educational level, and marital status. Furthermore, maternal perception of support was examined in relation to the quality of interactions between mothers and their infants. Based on evidence presented in the social support literature (Crnic et al., 1984; Eckenrode, 1983; Riley & Eckenrode, 1986), the current study hypothesized that the perceived maternal social support would vary based on maternal characteristics (i.e., age, marital status, and educational level).

The results from this study found a significant difference between age of mothers and the number of situations in which they felt they had someone to lend them support.

Findings indicated that younger mothers ($\underline{M} = 22.4$, $\underline{SD} = 6.6$) perceived support in a greater number of situations than older mothers ($\underline{M} = 18.7$, $SD = 8.2$). A possible explanation for this may be that younger mothers may feel they are more in need of social support and therefore seek it out, whereas older mothers may be more mature and more confident in their parenting roles. Also, younger mothers may be more likely to live with their own mothers and other relatives, and these family members may be offering support in response to what they perceive the young mother needs (Barratt et al., 1996; Wasserman et al., 1990). Thus, these young mothers perceive that they do have someone to lend support in a variety of areas.

The present study failed to detect significant differences in perceived social support between married and unmarried mothers. The marital status distribution in this study was highly skewed with only 19 percent of the mothers being married and the remaining 81 percent being unmarried. Limitations in the secondary data set did not account for the number of married partners versus live-in partners. Conceivably, mothers with live-in partners might receive the same type of support as married mothers living with their spouses. Finally, the results did not support the hypothesis that perceived support for mothers differed as a function of maternal education. Although the present sample was relatively equally divided between mothers who did and did not complete high school, it appears that failing to complete high school does not affect the number of situations in which mothers have someone to lend assistance in times of need. Life circumstances, such as where the mother lives, may be more salient to her perceived social support than her educational status. Younger mothers with less educational attainment may live with their family of origin and therefore have access to support in

various circumstances from their own mothers or other relatives. Other studies have reported the relationship between living arrangements and access to social support. For example, Wasserman and her colleagues (1990) examined 144 adolescent and 139 older mothers and found that social support was related to living arrangements. They concluded that mothers' age and living arrangements play a role in defining the type and amount of support she receives.

The current study also sought to replicate the findings of a large body of literature demonstrating a link between maternal social support and the quality of mother-infant interaction (e.g., Burchinal, Follmer, & Bryant, 1996; Colletta, 1981; Cooper, Dunst, & Vance, 1990; Crnic et al., 1983; Park, Lenz, & Jenkins, 1992). However, no relationship was found in the current study. Other studies have also failed to find a relationship between social support and scores on parenting measures (i.e., Lamb & Elster, 1985; Luster et al., 1996; Reis & Herz, 1987). Two conceptual models, which address the complexity of social support and may help situate the findings of this research in a more informative context, include Bronfenbrenner's (1979; 1986) human ecological model and Belsky's (1984) model of parenting. Ecological theory views humans as both biological and social beings in continuous interaction with their environment over time. Belsky's model presumes that parenting is directly influenced by parental characteristics, child characteristics, and the broader social context in which the parent-child relationship is embedded. Bronfenbrenner states that children in a family are affected not only by what happens in environments where children spend their time, but also by those environments in which their parents spend time (e.g., the parent's social network). Bronfenbrenner also stresses that the impact of the external environment on family processes is determined,

not only by the characteristics of the child, but also to an even larger extent, by the characteristics of the parent. If this theoretical framework is considered, the results of the present study support the notion of the reciprocal interaction of these contextual aspects of childrearing. The absence of single factors accounting for large portions of the variance supports ecological thinking of complex family systems.

The social support process involves a transactional, reciprocal relationship between an individual and his or her social network. This process takes place in fluctuating, multidimensional contexts and is influenced by a variety of personal and contextual factors (Boger & Smith, in press; Vaux, 1988). The ecological impact of social support systems also extends to mothers' parenting satisfaction and competence (Crnic et al., 1984). In order to embrace an ecological view of this support process, researchers should be mindful of not only the characteristics of the support network and the demographic characteristics of the individuals interacting within that network but also the interactions between all these characteristics.

In addition, other structural aspects (e.g., diversity, density, size) of social support should be considered in exploring the role of social support in parenting. In the present study, constraints of data collection made structural aspects of the maternal social support network impossible to determine. However, these remain important dimensions of social support. Existing research has demonstrated advantages and disadvantages to larger, diverse, high density social support networks for mothers with infants. Diversity, density, and relationships within support networks provide considerable variety in the levels of assistance those networks contribute to mothers. Vaux (1988) argues that many of the advantages to a larger support network may depend on the diversity of the network

rather than its size. Diversity of information, opinion, or perspective is likely to be associated with low-density support networks in which few members know one another. He states that low-density diverse networks may have a more extensive advantage to managing major life transitions: relationships with some friends may be allowed to fade, while relationships with others are nurtured and developed. However, diverse low-density social networks may enhance confusion and conflict. A dense homogeneous support network representing an undivided opinion may be most beneficial to an individual experiencing a major life transition (Vaux, 1988). How often a dense, homogeneous network with all members in agreement occurs, however, has not been discussed.

McPherson and his colleagues (1992), on the other hand, state advantages to diverse, high-density networks. Members of these networks are likely to share information that can be transmitted through the network, since their contacts are also interacting with each other. However, Hirsch (1980) discovered that high-density networks may be more of a disadvantage. In dealing with a life transition, women with dense networks in which family and friends tended to know each other reported more psychological distress, poorer mood, and lower self-esteem than women with less dense networks.

Clearly, social support is a complex construct embedded in dynamic contexts. Multiple variables should be considered in studying the role of social support in parenting. Often more questions than answers are raised. For example, based on the results of this study, the question arises whether it is more important to have a person to provide a specific form of support (i.e., money, childcare, help in decision making) or to

have a larger, more dense support network. Larger numbers of people may result in more opportunities for financial or child care assistance, but these relationships may also create more conflicts or stresses (Cramere & McDonald, 1996; Nitz, Ketterlinus, & Brandt, 1995; Shinn, Lehmann, & Wong, 1984).

Implications for Practitioners and Researchers

The findings of the current study are helpful for those individuals working with mothers and infants in various social settings. Social service workers and interventionists must take care not to approach younger and older mothers, or less educated and more educated mothers, assuming deficiencies in one group or the other. The results of this study indicated that these differences were not significant and that parenting practices and mother-infant interactions are the expression of many factors interacting simultaneously over time. Future research should continue to examine how social support affects mothers experiencing the transition to parenthood. Researchers investigating social support should utilize a number of relevant, reliable measures in order to best capture the many interrelated aspects of social support and mother-infant interaction. Defining social support becomes increasingly more difficult when attempting to assess the differences between perceived support and actual social support. Perceived social support may be just as comforting to mothers as actual support; therefore, these perceptions should not be discounted or dismissed in favor of an “objective” measure of social support collected by an outside observer. Furthermore, from an ecological standpoint, social support is subject to change over time and in evolving contexts. Social support measures may be more sensitive to these changes if administered repeatedly over time.

Limitations and assumptions

1. The results of this study are only generalizable to primarily Caucasian, low income, Midwestern mothers and their infants.
2. This study does not utilize a longitudinal design. A longitudinal assessment of maternal characteristics, maternal social support, and mother-infant interactions would allow researchers to examine the relationships between these variables over time.
3. The subjects in this study were selected from an ongoing evaluation. These mothers' willingness to participate in this research may differentiate them from other mothers with similar characteristics who chose not to participate.
4. This study assumes that mothers are honest when answering questions about themselves or their infants on a given measure.
5. This study assumes that less intrusive, less controlling, and positive styles of parenting are characterized as more optimal.

Appendix

Appendix A

Appendix A

Maternal Social Support Survey

Now I have a few questions about the amount of help available to you. I am going to describe some situations. For each situation, I will ask about the help you **could** receive.

1. Imagine you have a personal problem and are feeling nervous, anxious, or depressed. Is there someone you can confide in when you are feeling nervous, anxious, or depressed?

Yes.....01

No.....00

2. Next, you need to borrow \$100 for an emergency. Is there someone you could turn to for a \$100 emergency loan?

Yes.....01

No.....00

3. You have a broken leg and will be laid up for three months to heal. Is there someone you could turn to who would be able to help care for your child(ren) on a regular basis for these three months?

Yes.....01

No.....00

4. **Something has come up and you must go out unexpectedly during the hours you usually take care of your children. For one reason or another you cannot take the children with you. Is there someone who would be willing to babysit for a few hours on short notice?**

Yes.....01

No.....00

5. **Often people rely on the judgement of someone they know in making important decisions about their lives. Is there someone whose opinion you consider seriously in making an important decision?**

Yes.....01

No.....00

6. **After months of sleeping through the night, your child has started waking up every morning at 3 A.M. When (he/she) wakes up, (he/she) seems terribly frightened. Even after you have picked (him/her) up, (he/she) starts to scream if you try to put (him/her) down again. Is there someone who you could turn to for advice about this?**

Yes.....01

No.....00

7. It is about 6 P.M. and your child seems sick. You took (his/her) temperature and (he/she) is running a fever of 105 degrees. Your doctor's office has closed, and you are trying to decide if you should get emergency care for your child. Is there someone who you could turn to for advice about this?

Yes.....01

No.....00

The next questions are about how you solve problems and who you turn to for help.

8. Is there someone who you can count on to help you with food shopping?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

9. Is there someone who you can count on to help you with planning and cooking meals?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

10. Is there someone who you can count on to help you with cleaning the house?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

11. Is there someone who you can count on to help you with handling the bills?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

12. Is there someone who you can count on to help you with deciding how the money should be spent?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

13. Is there someone who you can count on to help you with taking care of your child/children?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

14. Is there someone who you can count on to comfort you when you are sad?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

15. Is there someone who you can count on to take care of you when you are sick?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

16. Is there someone who you can count on to have fun with?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

17. Is there someone who you can count on to talk with you about things that upset you?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

18. Is there someone who you can count on to talk with you about your private feelings?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

19. Is there someone who you can count on to tell you that you are okay the way you are?

Yes, all or most of the time.....02

Yes, sometimes.....01

No.....00

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