Relations Among Mothers' Parenting Strategies, Parenting Stress, Psychological Well-Being, and Ratings of Preschool Child Competence

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RELATIONS AMONG MOTHERS' PARENTING STRATEGIES, PARENTING STRESS, PSYCHOLOGICAL WELL-BEING, AND RATINGS OF PRESCHOOL CHILD COMPETENCE

by

Teri A. Morrison

A thesis submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

in

Family and Human Development

Approved:

UTAH STATE UNIVERSITY
Logan, Utah
2000
ABSTRACT

Relations Among Mothers' Parenting Strategies, Parenting Stress, Psychological Well-Being, and Ratings of Preschool Child Competence

by

Teri A. Morrison, Master of Science
Utah State University, 2000

Major Professor: Dr. Lori A. Roggman
Department: Family and Human Development

This study utilized archival data collected from mothers of 82 Head Start children. Relations among the following were examined: a number of parenting strategies taken from the "Home Survey" subscale of the American Guidance Services (AGS) Early Screening Profiles "Home-Health Questionnaire"; parenting stress (the Parenting Stress Index - Short Form or PSI-SF); scores in two dimensions of psychological well-being (the Center for Epidemiological Studies Measure of Depression or CES-D, and the Pearlin Mastery Scale); and the ratings parents gave their children in four domains of competence (the AGS Early Screening Profiles "Self-Help Social Profile"). Data from the AGS measures were collected by the Head Start staff as part of the normal educational process. Data from the other measures were collected by telephone interview as part of the Head Start Family Service Center Evaluation Project (principal investigator, Dr. Lori
Roggman). Relations of the ratings of child competence with other variables were explored.
ACKNOWLEDGMENTS

Thanks to all who have made this achievement possible. Thanks to my major professor, Dr. Lori Roggman, for allowing me to use the Bear River Head Start Family Service Center Project Evaluation data and for sticking with me. Thanks to Bear River Head Start for allowing me to access the children's files. Thanks to Dr. Shelley Lindauer and Dr. Ann Austin for sitting on my committee. Thanks to Dr. Richard Cutler and Dr. Jill Lundell for their statistical advice. Thanks to Cache Valley and Utah State University for what they have given me, and, of course, to my fellow students, co-workers, friends, and family.

Teri A. Morrison
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The development of necessary competence in children is not only important to parents but also to the well-being of society in general (Masten & Coatsworth, 1998). While the development of child competence is important to all of society, parents are the people most likely to be concerned about their own child's competence and ability to survive in the world, and they are probably also the most profoundly influential in either fostering or inhibiting the development of competence in their own child. This powerful influence which parents have upon children's development may reach the child via many different interrelated pathways, some of which are parents' perceptions, parents' actions, and parents' emotions (Clare, Garnier, & Gallimore, 1998; Kasari & Sigman, 1997). Relations between these several variables have not been thoroughly explored. There seems to be some agreement among theorists that parents' perceptions of their children influence their children's development, and that it is important to explore the role of parent perception in order to gain a better understanding of the parent's contribution to the processes operating in the development of the child (Clare et al., 1998; Miller, Manhal, & Mee, 1991; Patterson & Stouthamer-Loeber, 1984). While this may be generally agreed upon, there is still a great deal we do not understand about how mother attributes are related to her perceptions of her child (Bretherton, 1985; Clare et al., 1998; Haft & Slade, 1989). The present study focused on how parent evaluation of child competence was related to several parent characteristics.
This study looked at parents' views of their children's competence using a contextual perspective of the parent-child relationship. The questions examined in this study are important because they investigate how characteristics of the parent are associated with the parent's perceptions of the child's competence. Those perceptions are important because they are likely to influence parental behavior towards and communication with their children (Bornstein & Lamb, 1992; Burge & Hammen, 1991; Clare et al., 1998). Parent perceptions influence parent-child interactions, and the parent-child relationship is the primary ecology in which child competence is fostered or undermined (Bronfenbrenner, 1979).

In the present study, parent ratings of four domains of child competence were examined: child communicative competence, motor competence, social competence, and daily living skills. Second, parent strategies, stress, and psychological well-being were investigated. Third, relations among these constructs were explored.

Conceptual Framework

Because of its focus on the developmental impact of the child's environment, Bronfenbrenner's Ecological Theory of Human Development is the conceptual framework on which this study is based (Bronfenbrenner, 1979). This theory establishes the importance of the parent-child relationship, with all of its nuances of action, perception, and reaction, as an absolutely vital component of the child's environment.

Bronfenbrenner's basic idea of development emphasizes the importance of the developing individual's awareness, interpretation, and creation of his environment.
Bronfenbrenner (1979). Bronfenbrenner (1979) viewed development as occurring within a series of embedded contexts, which are as follows: the microsystems (the immediate settings in which the child lives); the mesosystems (the relations among the various settings); the exosystems (systems which have an impact on the child, but in which the child is not physically present); and the macrosystem (the society, culture, values, beliefs, etc.).

The microsystems are especially important in their impact on development, as they encompass "the activities, roles, and relations in which the person engages" (Bronfenbrenner, 1979, p. 11). Within the microsystem, dyadic interactions, the "basic building blocks of the microsystem," are "a critical context for development" (Bronfenbrenner, 1979). Especially important in their impact on development, primary dyads are those deep relationships which still exist for both persons when they are no longer together, and it is within these relationships that children learn, develop competence, and acquire values (Bronfenbrenner, 1979). The mother-child dyad is the quintessential primary dyad, and therefore highly influential in a child's development. Not all primary dyads, however, are equally helpful to children.

According to Bronfenbrenner, "The developmental impact of a dyad increases as a direct function of the level of reciprocity, mutuality of positive feeling, and a gradual shift of the balance of power in favor of the developing person" (Bronfenbrenner, 1979, p. 59). All three of these attributes are less likely to be found in a dyad in which the mother feels ineffective, is depressed, or is highly stressed in her parenting role. Therefore, the development of her child's competence may be compromised.
Through Bronfenbrenner's theory, we can see the relevance of the study at hand to the development of children. If parent perception of child competence is associated with the parent's mental condition, then child competence is likely to be affected indirectly through the actions and communications of the parent.

Research Questions

The purpose of this study was to examine the following questions:

1. To what extent do parent perceptions of child competence in the four domains covary?

2. To what extent do parenting strategies, parenting stress, and parent psychological well-being covary?

3. Are parenting strategies related to parent ratings of child competence?

4. Is parenting stress related to parent ratings of child competence?

5. Is parent psychological well-being related to parent ratings of child competence?
CHAPTER II
REVIEW OF THE LITERATURE

Child Competence

What is child competence? It appears to be a construct which is defined according to the study being done and measure used. Child competence may be thought of as overall child autonomy, adjustment, development, or achievement in terms of a particular domain such as social, emotional, language, or practical competence (Creasey & Jarvis, 1994). More specifically, researchers, theorists, educators, and clinicians may target certain categories of behavior (some of which may even seem mutually exclusive) but are thought to be indicative of competence in young children such as child defiance, compliance, self-assertion, and pretend play with objects (Creasey & Jarvis, 1994).

In the present study, parent-rated child competence is defined as the child's scores (parent-assigned) on the four subscales of the AGS Early Screening Profiles "Self-Help Social Profile" (SHSP; Harrison, 1990). They are communication, socialization, motor skills, and daily living skills (Harrison, 1990). It appears that relatively little research has been published using the SHSP. In the review of literature conducted for this study, only two published articles were found that used this measure (Ittenbach & Harrison, 1990; Smith, 1990). There is a need for further investigation into data yielded by this mother-rated measure.

It seems to be the view of society that it does matter whether or not a child develops appropriate competencies at the appropriate ages, but why does it matter how
competent a mother views her child as being? The answer to this question lies in the importance of the parent-child relationship in developing child competence. McGaughey (1986) showed that the parent-child relationship was very important, even more important than child temperament, in predicting child adjustment four years later. There are both empirical and theoretical connections between mother perceptions and child competence which make it valuable to examine the former in light of its association with the latter.

Mothers' perceptions are often used to measure child outcomes. This makes for a very close empirical relationship between these two constructs because if one is used to measure the other, whatever affects the first construct, mother perceptions, may be said to affect the measurement of the second construct, child outcomes, as well. It is necessary for researchers to take into account this important empirical connection, because if the mother's perception of her child's competence (the independent variable) is affected by other variables, the dependent variable (child competence) will also be affected. Because mother perceptions alone are often used to measure child competence, it is valuable to also understand what factors may be associated with these perceptions.

The theoretical connection between mother perceptions and child competence is that mothers' perceptions of child outcomes may very well influence those outcomes both directly and indirectly. If mothers' perceptions help to shape child outcomes, as many would contend that they do, it would seem insufficient to study child competence without also examining mothers' perceptions of child competence. Along with examining how mother's perceptions may be associated with child competence outcomes, it is useful to determine what factors may be influencing mothers' perceptions in the first place.
This review will include three factors which may be related to parent perception of child outcomes. These factors are (1) specific parenting strategies used by the mother, (2) her level of parenting stress, and (3) her psychological well-being. Each of these factors will be examined in light of their potential effects on mothers' perceptions of their children, and especially on their perceptions of their children's competence.

Parenting Strategies

There are many ways to look at the question of "What does a parent actually do in raising a child?" We might ask, "What interaction patterns do the parent and child engage in?", "What specific behaviors characterize the mother's parenting?", "What is the role of the child in making important decisions?", and many more such questions. In fact, obtaining a measure of the type of parenting a child receives is difficult enough that it is often not directly measured, but simply inferred based on child outcomes and their plausible causes in the home experience (McGaughey, 1986). Some notable theorists have come up with ways of classifying parenting into broad types or categories, the most notable of these being Diana Baumrind (1967, 1971, 1972). In this study, a few very specific mother strategies will be gathered by self-report using items from the AGS Early Screening Profiles "Home Survey."

The seven items chosen are those that have some association with the development of competence in or the education of young children. These items are as follows: (1) How often do you or your spouse find time to play with your child? (2) How often do you or your spouse find time to have a long talk with your child about his or her activities during
the day, or other similar topics? (3) What have you or your spouse helped your child learn (e.g., alphabet, numbers, colors, songs, nursery rhymes)? (4) How often do you or your spouse find time to read to your child? (5) How often does your child watch television? (6) How often do you or your spouse allow your child to choose the foods for his or her snacks or meals? (7) How often do you or your spouse allow your child to choose the clothes he or she will wear that day?

The rationale behind including the first item, which measures frequency of parent play with child, is firmly grounded in a long tradition of theory and research on play in childhood and its importance for cognitive (Bornstein & Lamb, 1992; Vygotsky, 1978, p. 101), social (Smith, 1982; Smith & Boulton, 1990), motor (Smith, 1982), and language (Bornstein & Lamb, 1992) development. The significance of play in child development is reflected in the old adage, "Play is children's work" (Bornstein & Lamb, 1992, p. 287). It is also generally agreed upon that time spent in positive interaction between parent and child is beneficial to the child in many ways (Strom, 1977; Strom & Johnson, 1978).

Children whose parents play with them often have been found to exhibit greater amounts of prosocial behavior than children whose parents play with them less often (Ladd & Hart, 1992). For boys, frequent parent-initiated play has also been shown to be associated with greater peer acceptance in preschool (Ladd & Hart, 1992). In addition, play with parents has been shown to be positively related to verbal scores (Falbo & Cooper, 1980). According to Vygotskian and Neo-Vygotskian theories of cognitive development, interaction (and play is a typical child's favorite form of interaction) between child and primary caregiver is an important influence in cognitive development (Smolucha...
& Smolucha, 1998). When parent-child (especially father-child) play is filled with interactions of mutual reciprocity, children gain practice in how to play successfully with peers (Lindsey, Mize, & Pettit, 1997). Added benefits of parent-child play include vocabulary enrichment, practice in using language, value transmission in specific situations, practice in sharing one another's imaginative fantasies, having those fantasies approved of, and resolving interpersonal differences (Strom, 1977).

Time spent with parents, whether in play, talk, or other activities, is valuable learning and relationship building time. In fact, Strom and Johnson (1978) expressed the importance of time spent with children in a statement to the effect that individual differences in the access to parents' time merit the same degree of developmental concern as do differences in the access to parents' financial resources. If this is true, it is not surprising that time spent by children with their parents is positively related to higher vocabulary scores (Falbo & Cooper, 1980).

Given all of this positive evidence for the importance of parent-child time spent together, it is interesting that in the present review only one study was located which dealt specifically with a very important type of time spent together, that of conversation. Connard and Kantor (1988) found that "quality and development" of communication between hearing mothers and their deaf children was an important factor in facilitating the child's learning. Other than this, the reviewer was able to find no study which specifically addressed the outcomes and associated variables of frequency of parent-child conversation. For this reason, it is a valuable addition to the present study.
The same is true for teaching specific things to the child. There were no studies found that examined the frequency of this parent-child interaction and its associated outcomes. However, as long as the teaching is done at an age-appropriate level for the child, and the parent does not force learning on the child, it would seem to be a valuable interaction similar to playing and talking together.

Reading to one's child is somewhat similar to playing with one's child in that there is a large body of literature available to support its importance in the development of child competence (Bus & Van Ijzendoorn, 1995; Bus, Van Ijzendoorn, & Pellegrini, 1995; Senechal, LeFevre, Hudson, & Lawson, 1996). Again, it represents time spent together, with all of its associated benefits for the child.

In the area of parent-child reading, specific benefits to the child were found, especially in the social and communicative areas. In the social competence domain, Bus and Van Ijzendoorn (1995) found that the mother-child dyads who read together less frequently scored lower on measures of attachment security than did dyads who read more frequently. Considering the global importance of attachment in the development of children, it would seem that parent-child reading could be an important positive parenting strategy.

In the area of communicative competence, Bus et al., in a 1995 meta-analysis on the subject, found that parent-preschooler book reading was associated with such child outcomes as "language growth, emergent literacy, and reading achievement." An additional finding which associated parent-child reading with positive child outcomes by
Senechal et al. (1996) was that knowledge of storybooks in 3- to 4-year-olds predicted their degree of vocabulary development.

As demonstrated, there is a good deal of support for the idea that reading to one's child is beneficial for the child's development of competence. It is interesting to examine the relationship between parent perception of child competence and frequency of parent-child reading together because reading with one's child is a definite attempt to enhance child competence. It is also interesting to learn whether a parent who does more to foster child competence will see that competence as being greater.

The relation between development of child competence and frequent child television viewing has been demonstrated to be as negative as the relation between development of competence and parent-child reading has been shown to be positive. Television itself has many positive effects on children. Coates, Pusser, and Goodman (1976) found that children who viewed educational programs such as Sesame Street and Mister Roger's Neighborhood derived cognitive and social benefits from these programs that were not available to children who did not watch them.

In general, the agreement among experts on the subject is, however, that children, especially young children, spend a disproportionately large amount of time in front of the television. Associations have been found between less frequent television viewing and certain positive child competence outcomes. For example, children who watch less TV, and whose parents talk with them about what they see were found to be "less hyperactive, more imaginative, less aggressive," and had a better grasp of the plots that they saw enacted on the television screen than children who watch more TV (Singer & Benton,
1989). By the same token, negative relations have been found between eye-hand coordination and duration of television viewing for preschoolers (Haines, 1984). In examining correlations between frequency of television viewing and parent perception of child competence, the present researcher hopes to learn more about parent regulation (or lack of regulation) of child television viewing and how that may be associated with parents' perceptions of their children.

The items that tap parent frequency of allowing child to choose her own clothes and food are specific examples of a parent allowing a child a certain amount of age-appropriate autonomy. Although they cannot measure any sort of general granting of autonomy, they do allow the researcher to glimpse purposeful attempts (or the lack thereof) on the part of the parent to foster child competence. The researcher hypothesizes that there may be a link between parent perception of child competence and parent-promoted autonomy. It would be logical to assume that a parent who takes the time to let the child exercise growing competence would also recognize the existence of that competence to a greater degree.

Parenting Strategies and Mother Perception

The present reviewer was not able to find any literature which specifically discussed the relations between the specific parenting strategies discussed above and parent perception of child competence. In consequence of this, it appears that inquiry into the relations between specific strategies and parent characteristics may be somewhat innovative (and therefore valuable).
Although there does not appear to be a body of literature relating specific parenting actions to parent perception of child competence, there are studies that suggest a link between these two concepts in general (Clare et al., 1998). For example, Hunt and Paraskevopoulos (1980) and Price and Gillingham (1985) obtained results suggesting that mothers who were less able to accurately gauge their child's abilities were also less likely to provide optimal support and stimulation.

Parenting Stress

Parenting stress is a factor that is associated with specific parenting actions. Stress can affect a parents' behavior, which, in turn, may affect child outcomes. Research has demonstrated many associations between level of parenting stress and quality of parenting. On a positive note, an intervention with abusive mothers in treatment programs showed that after a stress management course, these mothers behaved towards their children in a more positive fashion (Egan, 1983). Most of the research, however, has not been so focused on the positive. In fact, as shown below, the aggregate evidences are alarmingly negative.

One of the more significant effects of parenting stress on parenting behavior seems to be a decrease in maternal responsiveness (Hadadian & Merbler, 1996). Along with increased parenting stress come interactions which tend to be colder (Bigras & LaFrenière, 1994), more distant, less nurturing (Belle, 1980), and more inattentive (Bigras & LaFrenière, 1994). Not surprisingly, mother-child interactions become less positive (Noppe, Noppe, & Hughes, 1991) and less effective (Heinze & Grisso, 1996; Rodd, 1993)
when a mother is highly stressed. Mothers who are highly stressed have been shown to have lower quality parent-child interactions (McKay, Pickens, & Stewart, 1996) and to use more negative commands, hostile behaviors (Belsky, 1984; Forehand, Lautenschlager, Faust, & Graziano, 1986), and mutual coercion (Patterson, 1983) towards their children than do mothers with less stress.

Mothers who are impacted by significant stressors (economic hardship, for example) are more likely to use inconsistent discipline techniques (Lempers, Clark-Lempers, & Simons, 1989). This sets the mother-child dyad up for a negative cycle. When a mother is stressed, there may be an increased risk of maternal depression, poor socio-emotional well-being (LaFrenière & Dumas, 1995), external locus of control (Mouton & Tuma, 1988), and negligent mothering (Éthier, Lacharité, & Couture, 1995), as well as increased child aggressiveness, which is likely to be an additional stressor for an already stressed parent (Éthier & LaFrenière, 1993).

Children of highly stressed mothers have been shown to have an increased probability of experiencing problems in general (Heinze & Grisso, 1996) as well as specific social (Creasey & Jarvis, 1994; Downey & Coyne, 1990; LaFrenière & Dumas, 1995), emotional (Downey & Coyne, 1990; LaFrenière & Dumas, 1995), cognitive (Robbins, Dunlap, & Plienis, 1991), and behavioral deficits (Creasey & Jarvis, 1994; Creasey & Reese, 1996; LaFrenière & Dumas, 1995). An especially important association has been documented between high parenting stress and low attachment security (Hadadian & Merbler, 1996; Jarvis & Creasey, 1991; Pederson et al., 1990; Milgrom & McCloud, 1996; Teti, Nakagawa, Das, & Wirth, 1991), which is presently thought to underscore a
child's relationship formation in later life as well as affecting many other areas of child growth and development.

Children of highly stressed mothers are less likely to engage in pretend play (a hallmark of child cognitive development) and less likely to assert themselves appropriately (Creasey & Jarvis, 1994). Their increased risk for behavior problems can only exacerbate the mother's stress level. In addition to these examples, parenting stress has also been shown to be consistently "associated with other risk factors" (LaFrenière & Dumas, 1995), not the least of which is increased risk of physical abuse (Rodriguez & Green, 1997).

Parenting Stress and Mother Perception

In addition to parenting stress affecting parent behavior, parent-child interaction, and child outcomes, parenting stress appears to affect parents' perceptions of their children, which appear to be more negative when a parent is stressed. LaFrenière and Dumas (1995, p. 86) stated that "a clear danger signal from a highly stressed parent is a consistent negative attributional bias regarding their child." In support of this observation, LaFrenière and Dumas (1995) reported that parents who were very highly stressed rated their children as having more than twice as many behavior problems as their children's teachers reported. They also rated their children as exhibiting twice as many behavior problems as low-stressed mothers thought their children exhibited.

It must be remembered that when a parent is reporting child characteristics or behavior, it is difficult if not impossible to separate the parent's perception (or subjective
description of the child) from the "actual" characteristics of the child. Bearing this in mind, Telleen, Herzog, and Kilbane (1989) and Egan (1983) documented connections between alleviated parenting stress and a corresponding increase in positivity in the mothers' reports concerning their families, especially their children. Telleen et al. (1989) explained the following outcomes of their stress-reducing intervention, "[I]t was the mother's perception of the child that changed; the change included the mother's perception of the child's responsiveness to her, her perceptions of a more positive mood in the child, and a view of the child as being less demanding or irritating" (p. 417). Egan (1983) also documented improvements in parent perceptions of the level of conflict in their families when stress levels became more tolerable. These included a more positive maternal affect towards the child and a corresponding increase in positive child affect. If a parent's perception of child behavior and affect are related to a parent's stress levels, it is possible that this association may also extend to parent perception of child competence (although no literature was found which dealt with perceptions of competence specifically).

**Psychological Well-Being**

A parent's psychological well-being may be related to her level of parenting stress as well as to her parenting behaviors (Ethier & LaFrenière, 1993). More specifically, greater maternal psychological problems have been shown to be associated with elevated levels of parenting stress (Anastopoulos, Guevremont, Shelton, & DuPaul, 1992; Lavee, Sharlin, & Katz, 1996). Psychological well-being has a definite link with parent behavior,
because it is hardly likely that a parent would use the same parenting strategies when psychologically healthy as when there is a psychological problem.

Psychological well-being, including being able to be in tune with the child and responsive to the child's needs, is related to implementing positive parenting practices (McGaughey, 1986), and optimal child well-being (Heinze & Grisso, 1996; McGaughey, 1986). Conversely, children of parents who have psychological problems have been found to score lower on "attentional, verbal, coping, and social abilities" (Teti et al., 1991, p. 442) as well as being at risk for developing psychological problems themselves in the future (McKay et al., 1996). Finally, as is the focus of this study, parents' perceptions of their children can be affected by parents' psychological well-being (or the lack of it) (Forehand, Wells, McMahon, Griest, & Rogers, 1982). The two particular components of psychological well-being that will be included in the present study are depression and a feeling of mastery in life. Each of these and their association with parental perceptions will be presented separately.

Depression

Depression is closely associated with parenting stress (Éthier et al., 1995), parenting strategies, and contingent child outcomes. In fact, mothers under high levels of stress seem to be experiencing challenges and effects similar to those experienced by depressed mothers (Downey & Coyne, 1990). According to Downey and Coyne (1990), these similarities may be due to a mediating effect of stress on the mother-child relationship when the mother is depressed.
Common sense would suggest the possibility that parent depression is associated with parenting strategies because depression effects parent behavior. The sort of home environment created by a depressed mother is likely to be restrictive (Rickel, Williams, & Loigman, 1988), poorly structured, both physically and emotionally (Goodman & Brumley, 1990), hostile (Downey & Coyne, 1990; Susman, Trickett, Iannotti, Hollenbeck, & Zahn-Waxler, 1985; Weissman & Paykel, 1974, p. 121), resentful (Weissman & Paykel, 1974, p. 107), critical (Conrad & Hammen, 1989), and negative (Downey & Coyne, 1990). Effective mothering is impaired by depressive traits such as lack of emotional involvement (Weissman & Paykel, 1974, p. 106), impaired communication with the child (Weissman & Paykel, 1974, p. 106), and inconsistent disciplining of the child (Susman et al., 1985). Depressed mothers are more likely to respond to their children in ways that fail to support, and may even undermine, optimal child development. In addition to the effects already listed, depressed mothers tend to respond to their children's needs less quickly, less often, and less positively than do nondepressed mothers (Downey & Coyne, 1990).

Depression is associated with negative child outcomes, and it seems likely that the pathway by which this association operates is through the negative parenting strategies and effects just mentioned. These effects can be seen in children at a very young age, as infants whose mothers are depressed have been found to exhibit less overall activity, more looking away from the mother (Field, 1992; Field et al., 1988), less mother-directed behavior (Field, Healy, Goldstein, & Guthertz, 1990), flatter affect, and fewer vocalizations (Field, 1992). They also appear more irritable, unhappy, and fussy, and
show less interest in dyadic interaction than do children of nondepressed mothers (Field, 1992; Field et al., 1988; Pickens & Field, 1993).

In view of the child emotional and behavioral effects listed, and in view of the fact that they are exhibited so early in life, it is not surprising that mother depression has been found to be associated with security of infant attachment, infant affect, and infant developmental competence (Cummings & Cicchetti, 1990; Lyons-Ruth, Connell, Grunebaum, & Botein, 1990; Reid & Morrison, 1983; Teti, Gelfand, Messinger, & Isabella, 1995; Teti et al., 1991). There is a large body of literature to show that parental depression also increases a child's risk of developing depression (Bemesderfer & Cohler, 1983) and of displaying attentional deficits (Reid & Morrison, 1983).

Depression and Mother Perception

In addition to being related to parenting stress, parenting strategies, and child outcomes, parental depression is also related to maternal report of more negative child behavior (Lovejoy, 1991). In a study that looked specifically at mothers with postnatal depression (PND) symptoms, Milgrom and McCloud (1996) summarized that depressed women "view their world and their future in an unrealistically negative manner" (p. 177). For some depressed mothers, this negative perceptual bias can affect their views of themselves as well as the outer world, with PND mothers rating themselves as having low competence and low emotional attachment to their children (Milgrom & McCloud, 1996).

Unfortunately, this negative attributional bias not only affects depressed mothers' views of themselves, but of their children as well. More specifically, depression's effects
on perceptions of child behavior have been the focus of several studies. Panaccione and Wahler (1986) found mother depression and other mother states to be stronger predictors of mother observational judgments about their children's behavior than the behavior itself was. Forehand et al. (1982) posited and subsequently demonstrated that a parent's psychological problems, particularly depression, may influence a parent's perception of her child's behavior. Milgrom and McCloud (1996) in their above-mentioned study on PND found that PND mothers perceived their children as being "less reinforcing, less acceptable, less adaptable, more moody, and more demanding" (p. 177).

Webster-Stratton and Hammond (1988) found that depressed mothers, compared to their husbands or nondepressed mothers, reported their children as having more behavior problems. They also found that there were statistically significant paths between mother depression and perception of child maladjustment. Field, Morrow, and Adlestein (1993) found that depressed mothers perceived their babies' behavior as being even more negative than independent observers' already negative ratings. Depressed mothers may see their babies as being hard to parent (Campbell, Cohn, Flanagan, Popper, & Meyers, 1992).

Mothers' negative perceptions have been shown to extend to perceptions of child competence, at least in the area of social development, as depressed mothers may rate their babies as being less competent in social interactions (Field et al., 1993). Many of the examples already cited have implications for perceptions of child competence in some way or other, although the associations may not be direct. For example, if depressed parents see their children as having more behavioral problems as mentioned above, it would seem that one could make a link between behavioral problems and socioemotional competence.
because of the relation between socioemotional maturity and self-regulatory ability. By the same token, a mother's report of greater child maladjustment could be argued to reflect her perception of a lack of developmental competence of some sort. Thus, even more so than with parenting stress, it could be said that research and theory are heading towards establishing a link between mother depression and mother perception of child competence.

Mastery

Mastery is a concept that is closely associated with both locus of control (Rotter, 1966) and parenting self-efficacy (Grusec & Mammone, 1995). The Pearlin Mastery Scale measures some aspects of coping attitudes which have been shown to be associated with successful outcomes such as higher levels of education and socioeconomic status (Pearlin & Schooler, 1978). Belief in one's own mastery or control over life is cited along with self-esteem as being a valuable psychological coping resource (Kurtz & Derevensky, 1994), and is associated with higher levels of confidence in one's ability to parent (Teti & Gelfand, 1991). Parenting self-efficacy, like mastery, has to do with increased levels of parenting confidence. A parent who is self-efficacious feels as if she has a certain amount of power as a parent. She attributes successes to her own abilities and actions rather than to outside or incidental influences. She attributes failures to specific factors, which she believes she may have power to influence or even change (Grusec & Mammone, 1995). Not surprisingly, a belief in one's own self-efficacy has the tendency to be self-fulfilling (Grusec & Mammone, 1995).
Mastery, as well as self-efficacy and locus of control, is associated with depression, stress, and parenting strategies. In a study by Roggman, Moe, and Hart (1993), high parenting stress was strongly predicted by low mastery and high levels of depression. Depressed mothers in Milgram and McCloud's (1996) PND study and in Webster-Stratton and Hammond's (1988) study on depressed, mothers reported feeling a lack of competence in their roles as parents. Having a low sense of competence is what low mastery is all about. Indeed, both empirical studies and theoretical works show much evidence that these two concepts are closely associated (Bandura, 1989; Kochanska, Radke-Yarrow, Kuczynski, & Friedman, 1987, Teti & Gelfand, 1991).

Mastery's relation to stress seems in some ways very similar to its relation to depression. Mouton and Tuma (1988) found that parenting stress varied concomitantly with locus of control. A parent with higher levels of mastery has a greater feeling of control over her life, while a parent with lower levels of mastery has a feeling of a lack of control over her life. Thus, it is not surprising that Noppe et al. (1991) proposed that parents' perception of having less control than their infants in the parent-child relationship could be a significant stressor.

A feeling of mastery or self-efficacy is strongly related to a parent's strategies or behaviors. In fact, locus of control has been singled out as a major factor in determining parenting behavior (Rodgers, 1993). It is quite natural that a belief in the effectiveness of one's own influence and actions tends to affect those actions. A parent who feels a great deal of mastery (particularly in the parenting role) will doubtless be more motivated to be the best parent she can be, more so than if she believes that what she does is not effective
Mothers who feel that they have little control have a greater tendency to use abusive physical disciplining strategies (Grusec & Mamone, 1995). They are also prone to using inconsistent and confusing communicative strategies, especially with children who have behavior problems (Bugenthal, Mantyla, & Lewis, 1989).

The effects of low mastery on depression, stress, and especially on parenting strategies often result in negative child outcomes. In a 4-year prediction of child adjustment based on mothers' ratings of their children, the most important predictor found by McGaughey (1986) was the mothers' level of self-reported parenting competence. McKay et al., (1996) found that a parent's sense of competence was also the major predictor (after SES) of the quality of parent-child interaction. Finally, parents of less securely attached children, along with feeling depressed, may feel more incompetent as parents than do parents of more securely attached children (Teti et al., 1991).

Central to the purpose of the present study is the question of whether or not mastery (with all of its associations with the variables just discussed) is specifically related to parent perceptions of child competence. Unfortunately, substantial support for relations between mastery and parent perception of child competence was not found in the present review.

As far as the relations between mastery and mothers' perceptions in general are concerned, several statements can be made based on associated research. Most generally, in a study of women's overall satisfaction with life, satisfaction has been found to be
associated with a woman's feelings of mastery across the many roles she plays (Christensen, Stephens, & Townsend, 1998). Satisfaction with life can be thought of as an individual's perception of her present life. That individual's perception of her future life, specifically of future success, is also related to her perceptions of mastery or self-efficacy. This is supported by the research of Grusec and Mammone (1995), who found that self-efficacious individuals made "global attributions for success and specific ones for failure." In other words, self-efficacious individuals, or individuals with higher degrees of mastery in their lives, feel that their successes are more often due to stable, controllable characteristics of themselves. Therefore, they feel a greater control over the future and their future successes than do individuals with a lesser degree of mastery.

Given the fact that individuals with lower mastery seem less positive about their abilities and their forecasts for the future, it is not surprising to learn that in certain situations mothers who feel lower control over their lives have been shown to exhibit more sadness and negative thoughts when interacting with children who have behavior problems (Grusec & Mammone, 1995). It may be safely assumed that the saddened affect and negativity of these mothers in these situations are tied to their negative perceptions of life, of themselves and their own abilities, and of their children.

Finally, possible associations of mastery with perceptions can be seen because of the cognitive difficulty when faced with new tasks which has been exhibited by low control mothers (Grusec & Mammone, 1995). Grusec and Mammone proposed that this cognitive difficulty could be due to the fact that the individual's perceptions are so tied up in negative emotions and cognitions that there is little mental power left with which to
concentrate on a novel cognitive task. If a mother's mental powers can truly become that occupied with negative perceptions, it seems difficult to believe that she could give a child all of the attention which his developmental needs require.

A mother with low mastery will have little motivation to be an active force in her child's social, emotional, cognitive, and practical growth (Noppe et al., 1991). Even if a low mastery mother is somehow motivated in these areas, she will likely lack the mental and emotional resources to be an optimal mother. These first two conditions may also hamper a woman's ability to perceive her child's abilities accurately. For example, a relation has been demonstrated between mother parenting self-efficacy and mother perceptions of child vulnerability, and even disagreement with the pediatrician as to the degree of child competence (Estroff, Yando, Burke, & Snyder, 1994).

Synthesis of the Literature

This review has outlined findings associated with parent perceptions of child competence as well as child competence outcomes. Both theoretical and empirical connections between these two variables have been explored. Three specific factors related to both parent perceptions and child outcomes have been reviewed: parenting strategies, parenting stress, and parent psychological well-being. Relations among these three factors have been delineated. The research predictions of this study are related to each of these areas, and are listed in the next chapter. The rationale behind the inclusion of each of these predictions comes from the preceding literature review.
CHAPTER III
RESEARCH PREDICTIONS

The following five predictions were generated by the five research questions listed earlier.

Prediction #1

*Scores in the four domains of child competence (communication, socialization, motor skills, and daily living skills) will covary.* Prediction #1 investigated the interrelatedness or lack of interrelatedness between competence in separate domains. Determining to what degree the four domains of child competence in the present study covary was substantively instructive, but also methodologically crucial. Correlations between total Self Help-Social Profile scores and total Parenting Stress Index, Center for Epidemiological Studies-Depression Scale, and Pearlin Mastery Scale scores could be interpreted differently depending on the amount of variation among the four domains which made up the overall child competence score. It was also interesting to see whether high scores in all four domains of competence might constitute a sort of "halo effect" of overall competence. Although, as will be explained later, intercorrelations between the child competence domains were high, in each of the predictions they were used together as well as separately to learn about the more specific relations which might exist.
Prediction #2

**Parenting strategies, parenting stress, and parent psychological well-being will covary.** Evidence for the covariation of these three major variables was presented at the beginning of each section in the literature review. Parenting stress and depression seemed to share particularly close relations, as they tapped largely similar domains of parental emotion. Although it is always dangerous to make assumptions about direction of effect, it would appear that stress, depression, and mastery all influence parenting strategies to a great degree. It is logical to assume that because strategies, stress, and well-being seem to co-appear in the literature, they may covary in the present study. Although this prediction deals with the hypothesis that parenting strategies, stress, and psychological well-being will covary, Predictions #3 - #5 investigate further possibilities by dealing with each of these three variables separately.

Prediction #3

**Positive parenting strategies will be positively correlated with parent ratings of child competence.** Positive parenting strategies are those discussed in the review of the literature, and are those which are generally agreed upon to be beneficial to the development of child competence. Specifically, in the present study they are frequent parent play with child, frequently taking time out to talk with the child, frequently spending time teaching age-appropriate activities to the child, frequent parent-child
Although it has been amply demonstrated in this review of the literature that strategies influence child competence outcomes, fairly little literature was found to support the prediction that parenting strategies and parent perceptions of child competence are correlated. It would seem that this is a gap in the literature that needs to be filled. Hopefully, the present study will contribute needed evidence in this area.

Prediction #4

*Parenting stress will be negatively correlated with parent ratings of child competence.* There appears to be some solid evidence in support of the existence of a link between mother perception of child competence and level of parenting stress. LaFrenière and Dumas (1995) reported a tendency of highly stressed mothers to view their children more negatively. Even stronger support for Prediction #2 comes from the results of interventions in which the mother's attributions about the child (Telleen et al., 1989) and family (Egan, 1983) became more positive as their stress levels decreased. The fact that decreased stress levels have, in the past, been associated with a more positive view of the child makes it seem reasonable to expect that low parenting stress scores in the present study will be positively associated with high child competence ratings.
Prediction #5

*Parent psychological well-being will be positively correlated with parent ratings of child competence.* Ample evidence has been cited in this review in support of the existence of a positive relation between high parent psychological well-being and an increased likelihood of high parent-rated child competence. Most of the studies reviewed support the idea that increased depression is associated negatively with both child competence outcomes and mother perceptions of child competence (Forehand et al., 1982; Webster-Stratton & Hammond, 1988). The present study hypothesized that because there appears to be a connection between depression and mastery, increased levels of mastery will be associated positively with child competence outcomes and mother perceptions of child competence as well. It is therefore expected that higher parental well-being will yield parent-assigned scores of greater child competence.
CHAPTER IV

METHOD

Participants

The population from which this nonrepresentative sample was taken was that of all low-income families with preschool children in the Northern Utah area served by Bear River Head Start. The sample consisted of mothers of (N = 82) Head Start children. These mothers comprised a nonrandom, nonrepresentative sample of those who were assigned a case manager through the Family Service Center (FSC) as part of a federal demonstration project during the years 1992 to 1994.

The families in this sample applied for Head Start, met the poverty criterion for enrollment, and were subsequently identified as having multiple risk factors which might be detrimental to their children's development. Participants in the FSC were those identified as among the hardest to serve families with a child enrolled in Head Start during the project years. Significant effort was expended by Dr. Roggman's research team during the Family Service Center Project Evaluation to identify and interview all FSC participants (both fathers and mothers).

Procedure

This correlational study utilized archival data collected from mothers of Head Start children. Data for two of the constructs (parenting stress and psychological well-being) were collected during pre- and post-service telephone interviews by Dr. Lori Roggman.
and her research team as part of a federally funded program evaluation of the Bear River Head Start Family Service Center which serves the families of Head Start children. These self-report interviews were conducted by phone. If the participant did not have access to a phone the interviewer traveled to meet the participant and conduct the interview in person.

These data are stored confidentially with only ID numbers attached to information. All names linked with ID numbers are stored in Dr. Roggman's office. This project has received official approval of the Institutional Review Board of Utah State University (see appendix for approval documentation).

Data for the other variables (parenting strategies and parent perception of child competence) were collected by the Head Start staff at or near the time of child intake as part of the normal educational process. These data were self-report data provided by the mother (in some cases with the help of Head Start personnel). The investigator obtained permission from Bear River Head Start to access these files, and signed a confidentiality agreement with Head Start. These data were kept in locked file cabinets in Head Start's storage room. The investigator copied the data sheets without removing them from the room (covering all identifying information so that it was not transferred to the copies). Arbitrary ID numbers were assigned to the copies to preserve confidentiality.

The FSC staff supplied the researcher with a list of child names and parent ID numbers for (N = 148) children whose parents were participating in the FSC. They also provided a list of (N = 259) mother and father names and ID numbers with child names written next to many of them. Some of the child names on the two lists were found on
both lists, while other child names were found only on one of the lists. Using these lists and the records kept by the FSC Project Evaluation team, the present researcher went through the Head Start file cabinets drawer by drawer, matching the child names on the file folders with the names on the lists (N = 158 successful matches).

Of the file folders found, 128 were complete enough to be useful, which meant that they contained a "Self Help Social Profile" (SHSP) and a "Home Survey" (HS). Of the files with complete SHSP and HS data, 24 were unusable (e.g., data supplied by an unspecified person or someone other than the child's mother), leaving 104 complete and usable child file folders. Many of these children were siblings (it was very common for a family to have two children in Head Start during the target time period). The sibling with the examination dates closest to the date of the mother's interview was chosen. In the case of twins, one child was chosen for inclusion by the flip of a coin. The result was an electronic data file with only one child per mother ID number (N = 88). Finally, in the computer, the child file was matched with the mother file, resulting in 82 successful mother-child matches. Thus, the analyses are based on a sample of 82 Head Start children whose mothers participated in the Family Service Center. As with the FSC interview data, these data are stored in Dr. Roggman's office.

Measurement

Instruments used in this study are described in the following sections.
Parenting Strategies

The parenting strategy variables were operationalized as parents' responses to seven selected items of the "Home Survey" section of the American Guidance Services (AGS) Early Screening Profiles "Home-Health Questionnaire" (Harrison, 1990). The "Home Survey" is a collection of 12 ordinal level items which gauge the extent to which the physical and psychological climate of the home is structured by the parent with the child in mind. Some items on the "Home Survey" are "How often do you read to your child?" and "How often do you or your spouse find time to play with your child?"

According to its authors, the "Home Survey" has concurrent validity with similar measures (Harrison, 1990). In the initial norming sample of 220, alpha was .39 (Harrison, 1990). The authors speculate that this low reliability is probably due to the fact that it is a collection of a wide variety of items (Harrison, 1990). Therefore, the investigator in the present study selected seven items to be used as distinct indices rather than using a composite score from the scale as a whole.

Items were selected for use in the current study because of their applicability to the constructs of interest to the researcher, centrality to the hypotheses at hand, and specificity in reference to parenting actions. The items were #3) frequency of parent play with child, #4) frequency of having a long conversation with child, #7) frequency of time spent in age-appropriate teaching activities, #9) frequency of parent-child reading, #10) frequency of child television watching, #11) frequency of allowing the child to make food choices, and #12) frequency of allowing the child to make clothing choices. Incidentally, alpha for
the current study was much higher than for the norming sample: .65 for the seven items
used in this study (n = 81), and .48 for the full 12-item measure (n = 80).

**Parenting Stress**

The variable parenting stress was operationalized as an individual's score on the
Parenting Stress Index-Short Form (PSI-SF; Abidin, 1990). The PSI-SF is a shortened
version of Abidin's original Parenting Stress Index. Approximately 200 studies have
utilized all or part of the full PSI (Heinze & Grisso, 1996).

The PSI-SF's 36 items measure the level of parental psychological discomfort as a
direct result of the parenting experience. It has three subscales of 12 items each, "parental
distress," "parent-child dysfunctional interaction," and "difficult child". Each item is an
ordinal level 5-point Likert-type statement with responses ranging from "strongly agree"
to "strongly disagree." A few examples of items on the scale are "I feel that my child is
very moody and upset," and "I feel trapped by my responsibilities as a parent."

The full PSI has high test-retest reliability and internal consistency (Heinze &
Grisso, 1996). The PSI-SF has been demonstrated by Abidin (1990) as having a 6-month
test-retest reliability coefficient of .84 for the initial sample of 800 and a coefficient alpha
of .91. Coefficient alphas for the subscales were .87 for parental distress, .80 for
parent-child dysfunctional interaction, and .85 for difficult child (Abidin, 1990). Thus, the
PSI-SF has been previously shown to possess a very high degree of internal consistency.

In the Family Service Center evaluation, a subsample from year 2 (N = 103) yielded alphas
at the beginning and end of the year, respectively, of .90 and .91 for the PSI-SF
Coefficient alphas for the PSI-SF in the present study were .89 for the whole set of items (n = 78), .70 for the three subscales making up the instrument (n = 78), .83 for parental distress (n = 78), .81 for parent-child dysfunctional interaction (n = 82), and .78 for difficult child (n = 82).

The PSI-SF, as a derivation of the complete PSI, has a large body of validity research behind it (Heinze & Grisso, 1996). The content of the original PSI has been thoroughly evaluated and has been shown to have concurrent, predictive, and discriminant validity (Heinze & Grisso, 1996). Items in this scale were constructed based on an "extensive review of the literature relative to infant development, parent-child interaction, child attachment, child abuse and neglect, child psychopathology, child management practices, and stress" (Abidin, 1990). Two panels of six clinicians and six professionals "rated each item for relevance of content and adequacy of construction. The items were subsequently field tested" (Abidin, 1990). Factor analyses have shown the subscales to be valid for use with the women they are typically used to assess (Heinze & Grisso, 1996). The total scores of the two measures (the full PSI and the PSI-SF) have been shown to have a correlation of .94 (Abidin, 1990). The PSI-SF is a selection of items from the original PSI which retain the wording of the original items. This makes a very good case for the PSI-SF having a high degree of concurrent and construct validity.

**Psychological Well-Being**

The variable psychological well-being was operationalized as the mean of the means of two variables, the CES-D "Center for Epidemiological Studies Depression
Scale" (Radloff, 1977), and the Pearlin Mastery Scale (Pearlin & Schooler, 1978). Alpha for this variable (composed of two items, the CES-D mean score and the Pearlin mean score) was .72 in the present study ($n = 80$).

The CES-D is a generalized measure of depression. The scale contains statements such as "I felt lonely" and "I was happy." Four-point Likert response data are obtained for each item by asking the respondent to indicate how true the statement was for her during the past week.

The CES-D is a valid and reliable measure. Originally, the CES-D was cited by Radloff (1977) as having a coefficient alpha of .90 for a sample of psychiatric patients ($n = 70$). During the Family Service Center Evaluation, the CES-D yielded a reliability coefficient alpha of .89 for the beginning of the year and .92 for the end of the year (Roggman et al., 1994). In the present study, the CES-D demonstrated a coefficient alpha of .90 ($n = 81$).

The CES-D has high content validity because it is a collection of items drawn from longer, already validated, scales. Items were selected based on their relatively high content validity (Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977). In addition, Weissman et al. (1977) presented ample evidence for its concurrent and discriminant validity.

The Pearlin Mastery Scale is a seven-item measure of "mastery," a person's perception of his own degree of control over his life and circumstances. As with the CES-D, each item yields a 4-point Likert response by asking the respondent to indicate the degree of agreement with statements such as "I have little control over the things that
happen to me." Marshall and Lang (1990) reported an internal consistency alpha of .77 for the Pearlin. The Pearlin Mastery Scale also yielded a reliability coefficient alpha of .71 for the beginning of the year and .73 for the end of the year during the Family Service Center Evaluation (Roggman et al., 1994). In the present study, alpha was .74 for the Pearlin (n = 81).

**Parent Perception of Child Competence**

The variable parent perception of child competence was operationalized as the scores mothers gave their children on the AGS Early Screening Profiles "Self-Help Social Profile" (Harrison, 1990). The four subscales of the SHSP are communication, socialization, motor skills, and daily living skills. Each subscale consists of 15 items such as "Blows nose" (daily living skills domain) and "Follows rules of simple games" (socialization domain). Parents were asked to indicate how often their child does these tasks. Answers are ordinal, ranging from 0 "never" to 2 "almost always."

The SHSP has been demonstrated as having a reliability coefficient alpha of .92 for the original norming sample (n = 190) with parents as respondents (Harrison, 1990). In the present study, alpha for the raw scores was .84 (n = 82). For the original norming sample, point score (non-age-based scores derived from raw scores) correlations between each of the four domain scores of the SHSP and the total SHSP score were as follows: communication, .73; socialization, .79; motor skills, .73; and daily living skills, .68 (Harrison, 1990). The test manual gives an extensive review of the method of item and
scale construction, showing the test's high content, concurrent, and construct validity (Harrison, 1990).
CHAPTER V
RESULTS

Description of Sample

As was stated before, this nonrepresentative sample was taken from a population of northern Utah Bear River Head Start Family Service Center participants for whom data from both mother and child files were available. For an overall description of the sample, see Tables 1 and 2.

Racially, the sample was very homogeneous (79% Caucasian). Families were relatively large, with a mean family size of five people (three children). Families headed by single mothers tended to be smaller than two-parent families. The correlation between marital status and family size was relatively high ( \( r = .56, \ P < .01, df = 77 \) ). Mothers' levels of education were relatively high for a Head Start sample, with 61% of the sample being at least high school graduates. Half of the mothers had been employed at some time during the past 12 months, and 22% of them had received Aid to Families with Dependent Children (AFDC) during the past 12 months.

Research Predictions

The five research predictions of this study were explored using Pearson product-moment correlation coefficients (\( r \)), which show the strength and direction of bivariate relations. Although the measures used are composed of ordinal level Likert-type
Table 1

Description of Sample (N = 82): Categorical Variables

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</table>
Table 2

Description of Sample (N = 82): Continuous Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child age</td>
<td>82</td>
<td>3.7</td>
<td>5.2</td>
<td>4.4</td>
<td>.35</td>
</tr>
<tr>
<td>Family size</td>
<td>78</td>
<td>2</td>
<td>9</td>
<td>5.4</td>
<td>1.55</td>
</tr>
<tr>
<td>Number of children in household</td>
<td>77</td>
<td>1</td>
<td>7</td>
<td>3.3</td>
<td>1.26</td>
</tr>
<tr>
<td>Annual income</td>
<td>73</td>
<td>&lt; $3,000</td>
<td>&gt;$50,000</td>
<td>$12,000</td>
<td>2.22</td>
</tr>
<tr>
<td>Mother education (in years)</td>
<td>78</td>
<td>6</td>
<td>17</td>
<td>12.9</td>
<td>2.56</td>
</tr>
</tbody>
</table>

items, it is acceptable to perform Pearson r correlations using summed or mean scores for those measures, because summed or mean scores may be treated as interval level data (Borg & Gall, 1989).

All missing data were treated as "system missing" by SPSS. For cases missing a data point required to calculate another data point, the calculation was performed as long as most of the scores needed for the calculation were there. All reported results are statistically significant at least at the p ≤ .05 level, unless otherwise stated. Also, with the exception of the parenting strategy of TV time, larger values of a variable indicate that more of the construct is present. For TV time, higher scores indicated less time spent by the child watching television.

For measures which had both total and subscale scores (the PSI-SF and SHSP), total scores were used in the initial correlations, and subscales were explored where
necessary to specify which dimensions of parent and child functioning were most likely to be interrelated. Descriptives including means, ranges, and standard deviations for each research variable are shown in Table 3.

Scores in the four domains of child competence had similar distributions. Communication, socialization, and daily living skills had comparable means. While all of the standard deviations for competence domains are larger than would be expected for a normal distribution, socialization and motor skills had larger standard deviations than communication and daily living skills. Total child competence scores covered a wide range, indicating that some children scored both very low and very high in all domains. For the parenting strategies, a high mean for teach child and low mean for TV watching were evident while the means for the other strategies formed a relatively tight cluster in a middle range of values.

Scores in the three domains of parenting stress appear to have similar distributions. All three domains have large standard deviations as does the total parenting stress score. Total psychological well-being and mastery scores appear very similar to one another in range, means, and standard deviations.

To test for the possibility that hypothesized correlational outcomes might be explained in purely demographic terms, grouped t tests and correlations were used to test the interactions of research variables with demographic variables. In the results section for each prediction, partial correlations were also used for the same purpose. Results for t tests are shown in Table 4. Results for correlations are found in Table 5.
Table 3

Descriptive Statistics for Research Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother-rated child competence score:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>82</td>
<td>7</td>
<td>23</td>
<td>16.94</td>
<td>3.18</td>
</tr>
<tr>
<td>Socialization</td>
<td>82</td>
<td>7</td>
<td>28</td>
<td>18.79</td>
<td>4.79</td>
</tr>
<tr>
<td>Motor skills</td>
<td>82</td>
<td>8</td>
<td>30</td>
<td>23.83</td>
<td>4.20</td>
</tr>
<tr>
<td>Daily living skills</td>
<td>82</td>
<td>9</td>
<td>26</td>
<td>16.76</td>
<td>3.61</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>46</td>
<td>101</td>
<td>76.32</td>
<td>13.16</td>
</tr>
<tr>
<td>Parenting strategies:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play with child</td>
<td>82</td>
<td>1</td>
<td>3</td>
<td>2.74</td>
<td>.52</td>
</tr>
<tr>
<td>Talk with child</td>
<td>81</td>
<td>1</td>
<td>3</td>
<td>2.57</td>
<td>.59</td>
</tr>
<tr>
<td>Teach child (songs, nursery rhymes, colors, etc.)</td>
<td>81</td>
<td>1</td>
<td>5</td>
<td>3.67</td>
<td>.97</td>
</tr>
<tr>
<td>Read to child</td>
<td>81</td>
<td>0</td>
<td>3</td>
<td>2.05</td>
<td>.93</td>
</tr>
<tr>
<td>Number of hours child spends watching TV</td>
<td>82</td>
<td>0</td>
<td>3</td>
<td>1.72</td>
<td>.72</td>
</tr>
<tr>
<td>Allow child to choose food</td>
<td>81</td>
<td>0</td>
<td>3</td>
<td>2.16</td>
<td>.81</td>
</tr>
<tr>
<td>Allow child to choose clothes</td>
<td>81</td>
<td>0</td>
<td>3</td>
<td>2.40</td>
<td>.94</td>
</tr>
<tr>
<td>Parental distress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent/child dysfunctional interaction</td>
<td>82</td>
<td>14</td>
<td>48</td>
<td>29.33</td>
<td>8.50</td>
</tr>
<tr>
<td>Difficult child</td>
<td>82</td>
<td>14</td>
<td>48</td>
<td>28.41</td>
<td>6.77</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>49</td>
<td>127</td>
<td>80.66</td>
<td>17.79</td>
</tr>
<tr>
<td>Psychological well-being:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>82</td>
<td>1</td>
<td>3.35</td>
<td>1.83</td>
<td>.59</td>
</tr>
<tr>
<td>Mastery</td>
<td>82</td>
<td>1.71</td>
<td>4</td>
<td>3.09</td>
<td>.55</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>2</td>
<td>4</td>
<td>3.13</td>
<td>.50</td>
</tr>
</tbody>
</table>
Table 4

**Statistically Significant t Tests Comparing Groups Based on Categorical Demographic Criteria**

<table>
<thead>
<tr>
<th>t tests</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression by marital status</td>
<td>Married/living with someone</td>
<td>56</td>
<td>1.71</td>
<td>.51</td>
<td>-3.30</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>22</td>
<td>2.15</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological well-being by marital status</td>
<td>Married/living with someone</td>
<td>56</td>
<td>3.21</td>
<td>.47</td>
<td>2.35</td>
<td>.021</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>22</td>
<td>2.93</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teach child by child sex</td>
<td>Male</td>
<td>42</td>
<td>3.33</td>
<td>1.12</td>
<td>-3.47</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>39</td>
<td>4.03</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5

**Statistically Significant Correlations Based on Continuous Demographic Criteria**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Communication</th>
<th>Daily living skills</th>
<th>Overall competence</th>
<th>Reading to child</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child age</td>
<td>.25*</td>
<td>.28*</td>
<td>.26*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.26*</td>
</tr>
<tr>
<td>Family size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.23*</td>
</tr>
</tbody>
</table>

*p ≤ .05
Five demographic effects emerged. First, single were mothers were more depressed and psychologically unwell than married mothers. Second, mothers of daughters were more likely to teach age-appropriate material (such as nursery rhymes, colors, numbers, etc) than mothers of sons. Third, older children were rated higher on communication, daily living skills, and overall competence than younger children. Fourth, mothers with more education were more likely to spend time reading with their children than mothers with less education. Fifth, mothers with smaller families were more depressed than mothers with larger families.

Following is a summary of results obtained for each prediction. Finally, in an attempt to arrive at a "best guess" model of how the variables involved in this study operate in relation to one another as a whole, multiple regression models were tested using the SAS statistical software package's "all possible regressions procedure" and the SPSS statistical software package's "enter" procedure.

Prediction #1

Scores in the four domains of child competence (communication, socialization, motor skills, and daily living skills) will covary.

Analyses for Prediction #1. Correlations were calculated among the raw domain scores of the SHSP: communication, socialization, motor skills, and daily living skills.

Results for Prediction #1. Intercorrelations among the four domain scores are shown in Table 6. All of these correlations were statistically significant at the $p \leq .01$ level.
Table 6

Child Competence Intercorrelations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Daily living</td>
<td></td>
<td></td>
<td></td>
<td>.60**</td>
</tr>
<tr>
<td>skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Socialization</td>
<td>.63**</td>
<td></td>
<td>.60**</td>
<td></td>
</tr>
<tr>
<td>4. Motor skills</td>
<td>.56**</td>
<td>.54**</td>
<td>.60**</td>
<td></td>
</tr>
</tbody>
</table>

** p ≤ .01

In an effort to ascertain whether certain demographic variables could explain the correlations obtained for this prediction, key demographic variables (age of child, sex of child, marital status of mother, mother education, family income, and family size) were partialed out in an additional stage of analysis. First-order partial correlation coefficients controlling for each of the five demographic variables above remained statistically significant at the p ≤ .01 level.

In view of these results, there appears to be ample evidence that there are strong relations among the four domains of the Self Help/Social Profile, which are communication, socialization, motor skills, and daily living skills.

As explained earlier, part of the rationale behind investigating competence domain covariation was to know how to use the data in later analyses. If there had not been a great deal of covariation or internal consistency among the four domain scores, then it would not have made sense to use a total score for child competence in subsequent analyses. Because alpha is high enough (.84) to indicate the presence of an overarching
construct of competence, the total SHSP score will be used in subsequent analyses as planned.

Prediction #2

Parenting strategies, parenting stress, and parent psychological well-being will covary.

Analyses for Prediction #2. Correlations were calculated among the following variables: specific parenting strategies from the AGS Home Survey, the variable parenting stress (the PSI-SF total and subscale scores), and the variable parent psychological well-being (the CES-D depression and Pearlin mastery mean scores combined).

Depression and mastery scores were combined to produce the variable called psychological well-being in the following manner. First, the CES-D was recoded, because depression and mastery reflect opposite extremes of psychological well-being. Higher CES-D scores mean greater levels of depression, and higher Pearlin scores mean greater levels of mastery. Recoding the CES-D meant that higher scores would reflect lower levels of depression. Mean scores for mastery and the recoded CES-D were calculated, and the mean of these two scores was computed, yielding the parent psychological well-being score. When the variable "depression" is referred to in the tables, the original CES-D score is used instead of the recoded CES-D score, so that higher scores mean greater levels of depression.

Results for Prediction #2. Correlations among parenting strategies, parenting stress, and parent psychological well-being were calculated. As with Prediction #1, partial
correlations controlling for demographic variables were also calculated to investigate the possibility that they might explain the correlations yielded.

Parenting strategies and parenting stress appear to be only somewhat related.

Results for these correlations are shown in Table 7.

The total score for the PSI-SF was not itself correlated with any of the parenting strategies. However, specific parenting strategies and certain components of parenting stress were correlated in two ways. First, frequency of parent-child play showed a positive relation to the difficult child subscale of the PSI-SF. Second, frequency of reading to child and the parental distress subscale of the PSI-SF showed a negative relation with one another.

Table 7

<table>
<thead>
<tr>
<th>Variable</th>
<th>Play w/ child</th>
<th>Talk w/ child</th>
<th>Teach child</th>
<th>Read to child</th>
<th>TV time</th>
<th>Choose food</th>
<th>Choose clothes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI total score</td>
<td>.12</td>
<td>-.13</td>
<td>-.02</td>
<td>-.19</td>
<td>-.11</td>
<td>-.15</td>
<td>-.04</td>
</tr>
<tr>
<td>Parental distress subscale</td>
<td>-.07</td>
<td>-.10</td>
<td>-.13</td>
<td>-.26*</td>
<td>.003</td>
<td>-.18</td>
<td>-.05</td>
</tr>
<tr>
<td>Parent-child dysfunctional interaction subscale</td>
<td>.17</td>
<td>-.07</td>
<td>.01</td>
<td>-.14</td>
<td>-.17</td>
<td>-.07</td>
<td>-.03</td>
</tr>
<tr>
<td>Difficult child subscale</td>
<td>.24*</td>
<td>-.15</td>
<td>.01</td>
<td>-.01</td>
<td>-.13</td>
<td>-.08</td>
<td>.002</td>
</tr>
</tbody>
</table>

*p ≤ .05
Partial correlations controlling for each of the six demographic variables showed that the relation between frequency of play with child and difficult child lost statistical significance while the relation between reading to child and parental distress remained. None of the partial correlations showed additional relations between parenting stress and parenting strategies, which were not statistically significant in the original correlation matrix.

These results show substantial evidence of a relation between reading to child and the parental distress aspect of parenting stress. Weaker support is evidenced for relations between playing with child and the difficult child aspect of parenting stress, because the relation lost statistical significance as soon as any one of the demographic variables was partialed out.

Correlations between parenting strategies and psychological well-being are shown in Table 8.

Table 8
Correlations Between Positive Parenting Strategies and Psychological Well-Being

<table>
<thead>
<tr>
<th>Variable</th>
<th>Play w/ child</th>
<th>Talk w/ child</th>
<th>Teach child</th>
<th>Read to child</th>
<th>TV time</th>
<th>Choose food</th>
<th>Choose clothes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological well-being</td>
<td>.21*</td>
<td>.01</td>
<td>.10</td>
<td>.18</td>
<td>.05</td>
<td>.18</td>
<td>.06</td>
</tr>
<tr>
<td>Depression</td>
<td>-.20</td>
<td>-.05</td>
<td>-.09</td>
<td>-.08</td>
<td>-.04</td>
<td>-.11</td>
<td>-.05</td>
</tr>
<tr>
<td>Mastery</td>
<td>.18</td>
<td>.07</td>
<td>.09</td>
<td>.25*</td>
<td>.04</td>
<td>.21</td>
<td>.06</td>
</tr>
</tbody>
</table>

*p ≤ .05
Parenting strategies and psychological well-being initially shared two correlations: parent-child reading with mastery and parent-child play with overall psychological well-being. No relations were initially found between depression and any of the parenting strategies. The relation between reading and mastery remained when each of the demographic variables except for mother education was partialed out.

The relation between parent-child play and overall psychological well-being lost statistical significance when each of the demographic variables except for family size was partialed out. When family size was partialed out, the relation between parent-child play and depression also gained statistical significance. The correlation between allowing the child to choose food and mastery also gained statistical significance when mother marital status was partialed out.

There appears to be solid evidence in support of relations between parent-child reading and mastery, with weaker evidence of relations between parent play with child and parent psychological well-being. There are also slight indications of other possible relations between parenting strategies and psychological well-being which are strongly influenced by demographic factors.

Correlations between psychological well-being and parenting stress are shown in Table 9.

Parent psychological well-being and parenting stress appear to be highly correlated. In fact, only three of the correlations shown in Table 9 lack statistical significance. Overall psychological well-being shares relations with total parenting stress and with all of its subscales. Likewise, parenting stress shares relations with psychological
Table 9

Correlations Between Psychological Well-Being and Parenting Stress

<table>
<thead>
<tr>
<th>Variable</th>
<th>Psychological well-being</th>
<th>Depression</th>
<th>Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI total score</td>
<td>-.44***</td>
<td>.34**</td>
<td>-.44***</td>
</tr>
<tr>
<td>Parental distress subscale</td>
<td>-.56***</td>
<td>.47***</td>
<td>-.53***</td>
</tr>
<tr>
<td>Parent-child dysfunctional interaction subscale</td>
<td>-.21*</td>
<td>.10</td>
<td>-.28**</td>
</tr>
<tr>
<td>Difficult child subscale</td>
<td>-.23*</td>
<td>.19</td>
<td>.21</td>
</tr>
</tbody>
</table>

*p ≤ .05, ** p ≤ .01, *** p ≤ .001

Well-being and both of its component scores (depression and mastery). The parental distress subscale of the PSI-SF shares relations with both depression and mastery as well as with overall psychological well-being. The parent-child dysfunctional interaction subscale shares relations with mastery and overall well-being, but not with depression. The difficult child subscale is correlated with psychological well-being, but not with either of its components, depression or mastery.

When each of the demographic variables was partialed out, correlations for every relation in this part of Prediction #2 were statistically significant except for the correlation between depression and the parent/child dysfunctional interaction.

In summary, results for Prediction #2 show strong relations between parent psychological well-being and parenting stress. Results suggest that certain parenting strategies share relations with certain aspects of both parenting stress and psychological well-being. The two parenting strategies which appear to share the most solid relations
with the stress and well-being variables are reading to child and playing with child. Strong relations were evident for reading to child with both the parental distress subscale of the PSI-SF and mastery. Slightly weaker relations were evident for parent-child play with the difficult child subscale of the PSI-SF and overall psychological well-being.

Prediction #3

Positive parenting strategies will be positively correlated with parent ratings of child competence.

Analyses for Prediction #3. Correlations were calculated between the child competence variables (the SHSP total score for overall competence and each domain score) and the parenting strategy variables from the Home Survey.

Results for Prediction #3. Results for Prediction #3 are shown in Table 10. Partial correlations were also calculated to control for the demographic variables.

Correlations with overall child competence were found for three of the parenting strategies: teaching child, reading to child, and allowing child to choose food. The parent strategy of teaching the child nursery rhymes, colors, counting, and so forth, was correlated with social and overall competence, even after partialing out each demographic variable (except that when child sex was partialed out, teaching was only correlated with social competence). When mother marital status, mother education, or family size were partialed out, parent teaching was also correlated with child communication.

Reading to the child was correlated with both communication and overall competence. These relations lost significance only when any of the demographic variables
Table 10

Correlations Between Positive Parenting Strategies and Parent Ratings of Child

<table>
<thead>
<tr>
<th>Variable</th>
<th>Play w/ child</th>
<th>Talk w/ child</th>
<th>Teach child</th>
<th>Read to child</th>
<th>TV time</th>
<th>Choose food</th>
<th>Choose clothes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>-.09</td>
<td>-.13</td>
<td>.20</td>
<td>.24*</td>
<td>.12</td>
<td>.18</td>
<td>.15</td>
</tr>
<tr>
<td>Daily living</td>
<td>-.05</td>
<td>-.17</td>
<td>.14</td>
<td>.11</td>
<td>.12</td>
<td>.16</td>
<td>.04</td>
</tr>
<tr>
<td>Socialization</td>
<td>.03</td>
<td>-.06</td>
<td>.23*</td>
<td>.21</td>
<td>.08</td>
<td>.29**</td>
<td>.05</td>
</tr>
<tr>
<td>Motor skills</td>
<td>-.08</td>
<td>-.03</td>
<td>.19</td>
<td>.20</td>
<td>.09</td>
<td>.35**</td>
<td>.15</td>
</tr>
<tr>
<td>Total competence</td>
<td>-.05</td>
<td>-.11</td>
<td>.23*</td>
<td>.23*</td>
<td>.12</td>
<td>.30**</td>
<td>.11</td>
</tr>
</tbody>
</table>

* p ≤ .05, ** p ≤ .01

other than income or family size were partialed out. Also, with each demographic variable except for child age and child sex partialed out, the relation between reading to child and social competence gained significance even though it had originally been nonsignificant. Allowing the child to make food choices was correlated with social, motor, and overall competence, even when each of the demographic variables was partialed out.

In short, there appear to be three parenting strategies that are related to mother ratings of child competence. Effort spent teaching a child age-appropriate material is related to the mother's rating of the child's social and overall (and possibly communicative) competence. Frequency of reading to the child is related to the mother's rating of the child's communicative and overall (and possibly social) competence. Allowing the child
autonomy in making food choices is related to the mother's rating of the child's social, motor, and overall competence.

**Prediction #4**

Parenting stress will be negatively correlated with parent ratings of child competence.

**Analyses for Prediction #4.** Correlations were calculated between the variable parent perception of child competence (the SHSP total score for overall competence and each domain score) and the variable parenting stress (PSI-SF total and subscale scores).

**Results for Prediction #4.** Results for Prediction #4 can be seen in Table 11. Demographic variables were also partialed out to determine whether they might explain any relations between the variables being examined.

Initially, none of the correlations among overall competence, competence domains, overall parenting stress or parenting stress subscales were statistically significant. When each demographic variable was partialed out, however, four correlations consistently emerged. Correlations of child overall and social competence with total parenting stress and the parental distress subscale became evident. When child sex and mother education were partialed out, an additional correlation between parental distress and child motor competence also emerged.

Altogether, there is an interesting relation between parenting stress and mother-rated child competence largely due to parental distress and child social competence. This relation appears to be heavily tied to family demographic characteristics.
Table 11

Correlations Between Parenting Stress and Parent Ratings of Child Competence

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Parenting Stress</th>
<th>Parental Distress</th>
<th>Dysfunctional Interaction</th>
<th>Difficult Child</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>-.15</td>
<td>-.09</td>
<td>-.11</td>
<td>-.17</td>
</tr>
<tr>
<td>Daily living skills</td>
<td>-.10</td>
<td>-.07</td>
<td>-.10</td>
<td>-.07</td>
</tr>
<tr>
<td>Socialization</td>
<td>-.19</td>
<td>-.19</td>
<td>-.11</td>
<td>-.15</td>
</tr>
<tr>
<td>Motor skills</td>
<td>-.21</td>
<td>-.21</td>
<td>-.15</td>
<td>-.13</td>
</tr>
<tr>
<td>Total competence</td>
<td>-.20</td>
<td>-.18</td>
<td>-.14</td>
<td>-.16</td>
</tr>
</tbody>
</table>

Prediction #5

Parent psychological well-being will be positively correlated with parent ratings of child competence.

Analyses for Prediction #5. Correlations were calculated between the variable parent perception of child competence (the overall child competence and domain scores) and the variable parent psychological well-being (the mean of the CES-D mean and Pearlin Mastery Scale mean scores). Partial correlations were calculated, controlling for the demographic variables.

Results for Prediction #5. Results for Prediction #5 can be seen in Table 12. None of the correlations among overall child competence, competence domains, overall psychological well-being, depression, or mastery were statistically significant. No relations emerged when the demographic variables were partialed out.
Table 12

Correlations Between Parent Psychological Well-Being and Parent Ratings of Child Competence

<table>
<thead>
<tr>
<th>Variable</th>
<th>Psychological well-being</th>
<th>Depression</th>
<th>Mastery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>-.01</td>
<td>.01</td>
<td>-.01</td>
</tr>
<tr>
<td>Daily living skills</td>
<td>-.04</td>
<td>.04</td>
<td>-.03</td>
</tr>
<tr>
<td>Socialization</td>
<td>-.03</td>
<td>.07</td>
<td>.02</td>
</tr>
<tr>
<td>Motor skills</td>
<td>.11</td>
<td>-.06</td>
<td>.13</td>
</tr>
<tr>
<td>Total competence</td>
<td>.01</td>
<td>.02</td>
<td>.04</td>
</tr>
</tbody>
</table>

Multiple Regression Model

In an attempt to arrive at a "best guess" model of how the variables in this study operate in relation to one another as a whole, multiple regression models were tested with the assistance of Drs. Jill Lundell and Richard Cutler of Utah State University's Statistical Consulting Service. The "all possible regressions" procedure (Kleinbaum, Kupper, & Muller, 1988) was used to compare all possible linear regression models predicting child competence scores with at least one of the following predictor variables: playing with child, talking with child, teaching child, reading to child, limiting time spent watching TV, allowing autonomy in choosing food, and allowing child autonomy in choosing clothes. Criteria for model selection were adjusted R-square, Mallow's Cp, and goodness of fit with the underlying hypothesis of this study.
Table 13

Summary Table of Multiple Regression Analysis to Predict Mother-Rated Child Competence

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose food</td>
<td>3.98</td>
<td>1.78</td>
<td>.25</td>
<td>.03</td>
</tr>
<tr>
<td>Read to child</td>
<td>2.68</td>
<td>1.84</td>
<td>.19</td>
<td>.15</td>
</tr>
<tr>
<td>Teach child</td>
<td>2.26</td>
<td>1.64</td>
<td>.17</td>
<td>.17</td>
</tr>
<tr>
<td>Talk with child</td>
<td>-6.95</td>
<td>2.55</td>
<td>-.31</td>
<td>.01</td>
</tr>
<tr>
<td>Total parenting stress</td>
<td>-.17</td>
<td>.08</td>
<td>-.24</td>
<td>.05</td>
</tr>
<tr>
<td>Psychological well-being</td>
<td>-4.80</td>
<td>3.08</td>
<td>-1.56</td>
<td>.12</td>
</tr>
</tbody>
</table>

The model chosen was: Four Strategies + Stress + Psychological well-being = Child Competence Ratings. R-square for this model was .23, adjusted R-square was .17, and Mallow's Cp was 4.82. See Table 13 for the results of this model.

For this six-variable model, three of the predictors were statistically significant (choose food, talk with child, and parenting stress), and three were not (read to child, teach child, and psychological well-being). Regardless of the lack of statistical significance of the latter three variables, Mallow's Cp and adjusted R-square indicate that their presence in the model is not extraneous, but contributes meaningfully to it.

Summary of Results

Certain demographic effects were found. Single mothers and mothers with smaller families had higher levels of depression than did married mothers and mothers of larger
families (and for single mothers, lower levels of overall psychological well-being).

Mothers engaged in more age-appropriate teaching with girls than with boys. Mothers of older children rated their children higher on overall competence, communication, and daily living skills than did mothers of younger children. Mothers with more education read to their children more often than did mothers with less education.

In answer to the five research questions of this study, the four domains of child competence (communication, socialization, motor, and daily living skills) are distinct but highly interrelated constructs. Two parenting strategies appear to share the most solid relations with the stress and well-being variables are parent-child reading (correlated with parental distress and mastery) and parent-child play (correlated with difficult child and overall psychological well-being). Three parenting strategies are correlated with mother ratings of certain aspects of child competence: teaching age-appropriate material, reading to the child, and allowing the child autonomy in making food choices. The multiple regression model chosen recognizes a fourth variable, talking to child, as a significant predictor of child competence. Parenting stress and mother-rated child competence (especially social competence) were related, but only when demographic variables were partialed out, suggesting that the relation is heavily related to child and family characteristics. There were no relations between mother psychological well-being and mother-rated child competence.
CHAPTER VI

DISCUSSION

Overview

The focus of this study has been on how mothers' evaluations of their children's competence are related to certain maternal characteristics. By using a contextual perspective of the parent-child relationship, an attempt has been made to show how competence is supported or eroded in one of the most intimate and significant relationships of a young child's life. In this section, the statistical results obtained are discussed and examined in light of their limitations and implications for further research and practice.

Interpretations

The three purposes of this study were to: (1) examine parent ratings in four domains of child competence, (2) investigate relations among parent strategies, stress, and psychological well-being, and (3) explore relations between maternal characteristics and ratings of child competence. As is appropriate with any study involving human populations, demographic variables and their possible contributions to the relations observed were taken into consideration.

While relations among research variables and demographic variables are undoubtedly more complex than can be easily elucidated, results indicate that single mothers were more depressed and more likely to be psychologically unwell than their
married counterparts, that mothers with smaller families were more depressed than mothers with larger families, that mothers with more education were more likely to read to their children, and that older children scored higher on child competence measures. For the most part, these relations of demographic variables with the research variables seem predictable and unexceptional, because mothers without a spouse in whom they can confide (Brown & Harris, 1978; Roy, 1978) are at increased risk for developing depression, mothers with low socioeconomic status and low IQ are more likely to have children with reading difficulties (Silva, McGee, & Williams, 1985), and common sense would indicate that child competence scores should go up as a child matures.

The one surprising demographic effect was between depression and family size, with mothers of smaller families being more depressed than mothers of larger families. This finding contradicts much of the available research, such as that done by Roy (1978) and by Brown and Harris (1978). One possible explanation for this could be that, as mentioned earlier, there was a high correlation between marital status and family size. It may be that singleness interacts with family size, with mothers of smaller families being more likely to be single mothers, and therefore at increased risk for depression (Brown & Harris, 1978; Roy, 1978).

Answers to some research questions are clearer than others. Strong positive intercorrelations were found among the four domains of mother-rated child competence. This would lend support to the idea of a construct of global competence in young children.

The fact that parenting stress (chiefly through parental distress) is correlated with child competence (chiefly through social competence), but only with demographic
variables partialed out, is interesting. Mothers with high parental distress rated their children lower on social competence items. More exploration of this phenomenon and its connections to family context is definitely warranted.

The lack of relations between psychological well-being and mother-rated child competence is surprising and somewhat puzzling, given that research by Teti et al. (1991) and McKay et al. (1996), suggests such a relation. Less depressed, more confident mothers did not rate their children any differently on the competence scales than did more depressed, less confident mothers. Together, these results provide only weak support for the hypothesis on which this study is based, that negative maternal psychological and emotional states are associated with a negative perceptional bias which influences perceptions of the child. Perhaps mothers are less biased by their own feelings and attitudes than expected.

Support was found for relations between some of the parenting strategies and some of the mother-rated child competence outcomes, but not for solid relations between the two constructs as a whole. This is not surprising because the Home Survey items used did not constitute a unitary scale, but were merely an assortment of things a mother might do with her child.

Certain parenting strategies appear to be connected with mother ratings of certain domains of child competence. This supports the idea that it matters what a mother does or does not do with her child. Some of these results are not surprising. For example, there is a large body of literature that supports the idea that parents reading to children is a good thing, especially for children's developing ability to communicate (Bus et al., 1995;
Senechal et al., 1996). The relations of teaching age-appropriate material and allowing age-appropriate autonomy with social and overall competence support the commonly held idea that parents who consciously foster competence in their children are making a difference.

The high positive correlation found between parenting stress and parent psychological well-being is entirely in line with the literature (Anastopoulos et al., 1992; Lavee et al., 1996) and suggests the existence of a psychological whole within the parent. The fact that certain parenting strategies and certain aspects of parenting stress are highly correlated is interesting in that it highlights the importance of parenting stress as a construct composed of distinct, but related subconstructs which may interact independently with other parenting constructs. It is also instructive to examine specific relations. The negative relation of parent-child reading with parental distress is not surprising, because it may be too much for the stressed mother to sit down with a child and read a story book. The relation between child difficulty and parent-child play is surprising to the investigator, but may occur because difficult children often require more interaction with parents. Playing often may be a way to engage a child constructively as a strategy for behavior management.

Certain parenting strategies relate to parent psychological well-being. Reading and playing with a child and allowing appropriate choice-making opportunities might be thought of as rather high-level fostering of competence. To do these kinds of things regularly with a child would seem to require a degree of maturity, interest, and respect on the part of the mother for the child. It makes sense that a mother with only a limited sense
of competence or control in life might find this more difficult to do than a more confident mother.

The multiple regression model developed for this study showed that all of the predictor variables (with the exception of three of the parenting strategies: play with child, tv time, and choosing own clothes) contributed meaningfully to mother-rated child competence. In short, mother actions, psychological health, and parenting stress level all contribute to child competence outcomes (at least mother rated child competence outcomes). This upholds the basic supposition underlying Bronfenbrenner's ecological theory of human development (1979), which emphasizes the importance of contextual, and especially proximal, factors in the development of the child.

Limitations

The primary limitation of this study is the nonrepresentativeness of the sample. These results apply only to the present sample of Northern Utah Head Start Family Service Center participants.

Another important concern is due to the use of archival data. Because the data were archival, the researcher was restricted to using the information available and did not have access to further information about these families. In some cases, mother ratings of child competence were collected as much as a year apart from mother mental and emotional state data. Because depression, mastery, and parenting stress may be states of the mother rather than permanent traits, it is not actually possible to assume that a
depressed mother, for example, was depressed at the time when she filled out her child's Self-Help Social Profile.

A final concern involves the small range of values possible for the Likert-type items. Answers for many items are restricted to a range between 1 and 4. A mean derived from such a range of values must also have a limited range. Correlations resulting from limited-range data may be less powerful or meaningful than results of similar magnitude derived from data with more variability. In addition to this restricted range of possibility, there is further lack of variability because on some items, responses tend to stack up on certain values. Very few people in this sample, for example, answered on the more depressed end of the scale for the depression items. The researcher is concerned about the possibility of a response bias in favor of social desirability, especially on the depression and parenting stress measures.

Further Directions for Research and Practice

Although, as emphasized above, these results may not be appropriately applied to any other population than that from which they have come, it is possible that they could be useful as a jumping off point for thought. More research should be done on the relations among mental states and traits and interpersonal correlates. Especially in the case of the powerful mother-child relationship, a better understanding of the influences of emotion and cognition must be reached. Other researchers who have found relations between mothers' depression and their ratings of their children recommend that, when attempting
to evaluate children, the states and qualities of the evaluator must always be considered
(Friedlander, Weiss, & Traylor, 1986).

Because the sample is nonrepresentative, the researcher would recommend more
research in this area rather than developing any intervention or practice as a result of these
findings. For instance, one might conclude that mothers must have a sense of mastery in
their own lives before they will sit down and read books with their children. One might
then design a mastery-enhancing intervention for target populations of mothers with the
outcome goal of more frequent parent-child reading. To do this would be premature
without first doing more and better research on diverse populations.

Because it is not possible to turn these findings into a sensible intervention scheme,
the recommendation of the researcher must be more research. Parent states and traits
must be better understood in the context of the parent-child relationship and the child's
developing competence. Further research is needed as to how mother assessments of child
ability help to shape the child's learning environment. Hunt and Paraskevopoulos (1980)
have posited that mothers who are less able to accurately gauge their child's ability are also
less likely to be able to provide optimal support and stimulation.

Some recommendations for further research focus on parsimony as well as speed
and method of data gathering. If a similar study is conducted, the researcher recommends
the use of a parenting strategies scale. The researcher also recommends parsimony of
constructs. For example, using mastery and depression together may clutter instead of
elucidate important effects of psychological well-being. Lastly, independent ratings by
independent raters of child competence allow comparisons between mothers' and others' ratings.

Conclusion

The development of competence in individuals of a society is necessary to maintain the integrity and competence of that society. Thus, the ability of our society to succeed in the future depends greatly on the social, emotional, practical, and intellectual competence of our children. It is important to try to better understand the factors that influence development, and one of the major influences on the child is the parent-child relationship. Parent-child relationships, in turn, are influenced by the qualities the parent brings into daily interactions. It appears that parent states do influence these interactions and their subsequent effects on the child. However, the directions of these effects appear to be complex, so further research efforts are needed to understand these dynamics.
REFERENCES


MEMORANDUM

TO:        Lori Roggman
           Teri Morrison

FROM:     True Rubal, Secretary to the IRB

SUBJECT:  The Relationships Among Parenting Strategies, Parent Psychological
          Well-Being, Parenting Stress, and Parent Perception of Child Competence
          at Age 4

The above-referenced proposal has been reviewed by this office and is exempt from further
review by the Institutional Review Board. The IRB appreciates researchers who recognize
the importance of ethical research conduct. While your research project does not require a signed
informed consent, you should consider (a) offering a general introduction to your research goals,
and (b) informing, in writing or through oral presentation, each participant as to the rights of the
subject to confidentiality, privacy or withdrawal at any time from the research activities.

The research activities listed below are exempt from IRB review based on the Department
of Health and Human Services (DHHS) regulations for the protection of human research
subjects, 45 CFR Part 46, as amended to include provisions of the Federal Policy for the

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude,
achievement), survey procedures, interview procedures or observation of public behavior,
unless: (a) information obtained is recorded in such a manner that human subjects can be
identified, directly or through the identifiers linked to the subjects: and (b) any disclosure
of human subjects' responses outside the research could reasonably place the subjects at
risk of criminal or civil liability or be damaging to the subjects' financial standing,
employability, or reputation.

Your research is exempt from further review based on exemption number 2. Please keep
the committee advised of any changes, adverse reactions or termination of the study. A yearly
review is required of all proposals submitted to the IRB. We request that you advise us when
this project is completed, otherwise we will contact you in one year from the date of this letter.
Statement of the PI to the IRB for Proposed Research Involving Human Subjects
(Part A)

Date: December 5, 1996

Proposal Title: Relationships among parenting strategies, parent psychological well-being, parenting stress, and parent perception of child competence: age four.

Principal Investigator: Dr. Lori A. Roggman Dept. FHD UMC 2905 Ext. 1545

Student Researcher: Tena A. Morrison Dept. FHD UMC 2905 Ext. 3578

A. Human subjects will participate in this research and be asked to do the following: Subjects have already given permission to be interviewed and have their Home Start and Family Service Center files accessed. That is all they are asked to do.

B. The potential benefits to be gained from the proposed research are: The proposed research will add to the existing body of knowledge concerning parenting.

C. The risk(s) to the rights and welfare of the subjects involved are: No risk is anticipated.

D. The following safeguards/measures to mitigate/minimize the identified risks will be taken: ____________

E. The informed consent procedures for subjects will be as follows: (Explain procedures to be followed and attach an example of the Informed Consent instrument. Consent to use the data was obtained during the Family Service Center Evaluation project. See enclosures.

F. The following measures regarding confidentiality of subjects will be taken: ID numbers instead of names will be used for identification. Group results only will be reported.

G. Other: (If, in your opinion, no risk or minimal risk exists to subjects, please explain) No risk is anticipated.

__________________________  __________________________
Principal Investigator Signature  Student Researcher Signature

(* A student researcher should name his/her advisor or chairman as the principal investigator. Both are required to sign this form.)

Return form to: True Rubal, UMC 1450
Human Subject Review Protocol
Part B

P.I.: Lori A. Ruggman, PhD  Student Researcher: Teri A. Morrison

Duration of Study: From: 1992  To: 1995

Is this a multi center study?  
(If yes, list other institutions participating and attach a page which explains the responsibilities and obligations of each center and/or each investigator.)

Will you be seeking external funding for this research?  
(If yes, please explain the responsibilities and duties of all investigators involved in the study on an attached page.)

Does this study involve subjects who are not fluent in English?  
(If yes, please submit both the English consent form and the translation in the appropriate language.)

Number of Subjects: 156  Gender of Subjects: M + F

Health Status of Subjects:

Are subjects healthy volunteers?  Yes  No
Are subjects mentally competent?  Yes  No
(If no, explain)

Vulnerability of Subjects:

Are subjects younger than 18 years of age?  Yes  No
Are subjects older than 65 years of age?  Yes  No
Are subjects pregnant women?  Yes  No
Are subjects prisoners?  Yes  No
Are subjects institutionalized?  Yes  No

(If yes on any of the above, explain rationale for selecting vulnerable subjects.)
Assurance Document
Part C

The attached protocol involves the use of human subjects. I understand that the University’s policy concerning research involving human subjects and I agree:

1. To obtain voluntary and written informed consent of subjects who are to participate in this project.

2. To report to the IRB any unanticipated effects on subjects which become apparent during the course of, or as a result of the experimentation and the actions taken.

3. To cooperate with members of the Committee charged with the continuing review of this project.

4. To obtain prior approval from the Committee before amending or altering the scope of the project or implementing changes in the approved consent form.

5. To maintain documentation of consent forms and progress reports as required by the IRB.

6. To protect confidentiality of research subjects and the data collected.

P.I. Signature  
Date Signed
MEMORANDUM

TO: Dr. Lori A. Roggman
FROM: Sydney Peterson
DATE: July 10, 1992
SUBJECT: Proposal titled, “Family Service Center Evaluation Project”

The above referenced proposal has been reviewed by this office and is exempt from further review by the Institutional Review Board. However, the IRB strongly recommends that you, as a researcher, continually recognize the importance of ethical research conduct.

The research activities listed below are exempt from IRB review based on HHS regulations published in the Federal Register, Volume 46, No. 16, January 26, 1981, p. 8387.

1. Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (a) research on regular and special education instructional strategies, or (b) instruction techniques, curricula, or classroom management methods.

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), if information taken from these sources is recorded in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

3. Research involving survey or interview procedures, except where all of the following conditions exist: (a) responses are recorded in such a manner that the human subjects can be identified, directly or through identifiers linked to the subjects, (b) the subject’s responses, if they became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damming to the subject’s financial standing or employability, and (c) the research deals with sensitive aspects of the subject’s own behavior, such as illegal conduct, drug use, sexual behavior, or use of alcohol. All research involving survey or interview procedures is exempt without exception, when the respondents are elected or appointed public officials or candidates for public office.
4. Research involving the observation (including observation by participants) of public behavior, except where all of the following conditions exist: (a) observations are recorded in such a manner that the human subjects can be identified, directly or through identifiers linked to the subjects, (b) the observations recorded about the individual, if they became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability, and (c) the research deals with sensitive aspects of the subject's own behavior such as illegal conduct, drug use, sexual behavior, or use of alcohol.

5. Research involving the collection or study of existing data, documents, records, pathological specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Your research is exempt from further review based on exemption number 3.

Signed
Sydney Peterson
Staff Assistant
Statement of the PI to the IRB for Proposed
Research Involving Human Subjects

Proposal Title  Family Service Center Evaluation Project

Principle Investigator  Lori A. Roggman  Dept.  FHD  UMC, 2905  Ext.  1545
Student Researcher

A. Human subjects will participate in this research and be asked to do the following:
Adults involved in the FSC are parents of children enrolled in the Bear River Head Start Program. They will be asked to allow access to their family files and answer interview questions.

B. The potential benefits to be gained from the proposed research are:
The purpose of the evaluation is to document the extent to which the FSC succeeds in providing literacy training, job training, and drug/alcohol education and treatment to enrolled parents.

C. The risk(s) to the rights and welfare of human subjects involved are:
There are no risks foreseen.

D. The following safeguards/measures to mitigate/minimize the identified risks will be taken:
There are no risks foreseen.

E. The informed consent procedures for subjects will be as follows: (Explain procedures to be followed and attach an example of the informed consent instrument)
Parents will be informed of the evaluation component of the project by project staff. The consent form will be read and explained to them.

F. The following measures regarding confidentiality of subjects will be taken:
All information used for the evaluation will be identified by ID number and not names. Results will be reported in terms of the whole group and not individuals, except for selected examples in which the names will be changed in any written reports.

G. Other: (If, in your opinion no, or minimal, risk to subjects exists, please explain in this section)
There are no risks foreseen.

Principal Investigator Signature
Dear Family Service Center Parent,

The Family Service Center is a new part of our Head Start program that will run for 3 years as a "demonstration" project. There are also several other demonstration projects like this across the country. If these programs are successful, then there may be more projects like this in the future. As part of the Family Service Center, you will be involved in seeing if the project is a success.

To see if the Family Service Center is successful, we will be interviewing everyone involved in the program and reviewing information that the program has on file. From this information we will be able to report what kinds of families are being served, what services they are getting, and how the services are affecting families.

All of that information will be labeled with an ID number and not names. Our reports about the project will be about the whole program and not specific persons. If we use individual information as an example or "case study" we will change the names of all family members in our report. Because this information is completely confidential, there will be no risk to you, but there will be benefits for Head Start.

Your participation in this project is voluntary and you may withdraw at any time. Furthermore, you have the right to refuse to answer any question during an interview.

Your signature indicates that you agree to an interview and access to your Head Start and Family Service Center files for evaluation and research purposes only. If you have any questions, please ask Glenna Markey at Head Start (753-0951) or Lori Roggman at Utah State University (750-1545).

Your signature: ___________________________

Your name (printed): __________________________

Today's date: __________________________

________________________
Glenna Markey, Head Start Director

________________________
Lori Roggman, Evaluator