Associations among mothers' reports of family daily hassles and family resources and children's cognitive ability: an exploratory study

Troy D. Stuart

Louisiana State University and Agricultural and Mechanical College

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ASSOCIATIONS AMONG MOTHERS' REPORTS OF FAMILY DAILY HASSLES AND FAMILY RESOURCES AND CHILDREN'S COGNITIVE ABILITY: AN EXPLORATORY STUDY

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in School of Human Ecology

by Troy D. Stuart
B.A., Louisiana State University, 1995
M.A., Abilene Christian University, 1998
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ABSTRACT

The purpose of this study was to examine the relationships among daily hassles, family resources, and children’s cognitive ability. Particular emphasis was placed on examining the relationships among the variables by family structure.

A total of 205 children in first-grade and third-grade and their mothers participated in the study. There were 120 children from intact families and 85 children from single mother families in the study.

All mothers completed assessments on family level variables and all children completed the BIA test of cognitive ability. Multiple regression analyses were utilized to examine the relationships among the variables.

Daily hassles and cohesion were related to the cognitive ability scores of children living in intact families. Family hardiness was related to the cognitive ability scores of children living in single mother families. The findings indicated the existence of potentially important relationships among daily hassles, family resources, and children’s cognitive ability. The findings also indicated that the relationships among the variables differed by family structure.
INTRODUCTION

It is widely recognized that quality family interactions play a primary role in individuals’ physical and psychological development. The centrality of the family as a primary context for individual development has been documented for children (Bronfenbrenner, 1990) and adults (Stinnett, Walters, & Stinnett, 1991).

It is also widely recognized that over the last half century a greater diversity of family forms has emerged in U.S. culture. This presents both opportunities and challenges for families as they face the demands of contemporary family life. Recent scholarship in family social science is dedicated to understanding the impact of these diverse family forms on society and on individual well being (e.g., Demo, Allen, & Fine, 2000; Sussman, Steinmetz, & Peterson, 1999).

Researchers have focused their attention on children’s development in light of this greater diversity of family forms. Research has examined outcomes related to children’s behaviors and academic achievements, particularly as these outcomes are related to family structure and income/poverty (Danzinger, Sandefur, & Weinberg, 1994; Duncan & Brooks-Gunn, 1997; McLanahan & Sandefur, 1994).

In recent decades, stress research and theory has been useful as an approach to understanding individual and family life in contemporary society. Scholars conducting research from a stress theory paradigm have examined the relationship between major stressor events and minor daily stressors and individual and family outcomes (e.g., Boss, 2002; Burr & Klein, 1994; Kanner, Coyne, Schaefer, & Lazarus, 1981; McKenry & Price, 1994; Thoits, 1995). Scholars conducting research from stress theory have
also examined resources that contribute to individual and family well being as they experience the stressors of life (Boss, 1999; Kobasa, Maddi, & Kahn, 1982; Lazarus & Folkman, 1984; McCubbin, Thompson, Thompson, & Fromer, 1998; Olson & McCubbin, 1983).

The current study proposes to utilize family stress theory in exploring the relationship between a family’s daily hassles and children’s cognitive ability. In light of the diversity of family forms that have emerged in recent decades, specific attention will be given to differences in the stress process in various family structures. The relationship between the family’s resources of adaptability, cohesion, and hardiness, and children’s cognitive ability will also be examined. Additionally, socio-demographic characteristics of the family such as income, race, and mothers’ education will be accounted for in analyses of the data.

In this chapter, a justification for the current study is provided followed by definitions of relevant terms. Next a discussion of the major features of psychological and family stress theories is provided followed by a discussion of how aspects of these theories guided this study. The chapter concludes with objectives and hypotheses that guided the study.

Justification

Often the lines of stress research being conducted by family stress theorists have remained fairly segregated from stress research being conducting by scholars in the medical and psychology fields. While a few scholars (e.g., Boss, 1992; Boss & Mulligan, 2003; Hobfoll, 1992; Kazak, 1992; Olson & McCubbin, 1983) have
attempted some level of integration, by and large these domains of inquiry have remained fairly distinct. Especially noteworthy has been the lack of integration of research on daily hassles in the family stress literature. Daily hassles have become the focus of research and investigation by scholars in medicine and psychology over the last two decades. The current study is an attempt to link concepts from the two bodies of knowledge by (a) utilizing a family stress perspective, (b) focusing on daily hassles rather than major stressor events, and (c) incorporating measures of important family resources (family hardiness, adaptability, and cohesion).

Cognitive abilities are important in that they are consistently related to a number of outcomes including educational attainment and income earned in the workplace (Jencks & Phillips, 1998; Johnson & Neal, 1998; Teachman, Paasch, Day, & Carver, 1997). An emerging theme in the literature is the importance of a child’s home environment to his or her development of cognitive abilities (Phillips, Brooks-Gunn, Duncan, Klebanov, & Crane, 1998; Brooks-Gunn, Klebanov, & Duncan, 1996). Jencks and Phillips (1998) state that successful theories concerning the black-white test score gap will pay more attention to families’ environment and interpersonal interactions. The current study attempts to explore aspects of children’s family environment (stressors and resources) that might be associated with their cognitive ability.

Many researchers study individual and family development over the life cycle. From an individual standpoint, preadolescent school-age children have been the focus of less research than infants, toddlers, and adolescents. Families with preadolescent school-age children have also received less attention than those at other stages of the
family life cycle (e.g., birth of first child, launching). Banez and Compas (1990) stated that stress research has lagged behind in studying the effects of daily hassles on preadolescent school-age children. Thus, the current study focuses on this population.

Definitions of Terms

In this section five key terms examined in the study are defined: daily hassles, family hardiness, family adaptability, family cohesion, and cognitive ability. Daily hassles are minor stressors that involve common activities (driving in traffic, pet care, interpersonal relationships) that occur relatively frequently. Daily hassles are defined as “experiences and conditions of daily living that have been appraised as salient and harmful or threatening to the endorser’s well being” (Lazarus, 1984, p. 376).

Family hardiness refers to a family’s dispositional style that functions as a resistance resource enabling families to manage stressors. Some researchers use the word hardiness interchangeably with the word resilience. This study does not focus on resilience or use the word hardiness in that way. In this study, hardiness refers to a family level resource. Family hardiness is characterized by four components: co-oriented commitment (active orientation in adapting to stressful situations), confidence (ability to endure stressors with a sense of interest and meaning), challenge (perceive change as an opportunity to grow), and control (sense of control over events) (McCubbin, McCubbin, & Thompson, 1991).

In addition to family hardiness, family adaptability and family cohesion are key resistance resources enabling families to manage stressors. Family adaptability refers to the ability of the family system to change. Families that are more adaptable
demonstrate greater capacity to change; whereas, families that are less adaptable tend to maintain homeostasis. Family adaptability is defined as “the ability of a marital or family system to change its power structure, role relationships, and relationship rules to situational and developmental stress” (Olson & McCubbin, 1982, p. 51).

Family cohesion refers to the level of closeness among family members. Members of families high in cohesion tend to be less differentiated; whereas, members of families low in cohesion tend to be relatively disengaged. Family cohesion is defined as “the bonding that family members have toward one another and the degree of individual autonomy they experience” (Olson & McCubbin, 1982, p. 49).

Cognitive ability is defined in this study as developed mental skill. This definition reflects the view that cognitive abilities are developed rather than innate although it is recognized that developed abilities may depend on both the environment and genes. This definition seeks to avoid the labeling bias that has previously been associated with defining cognitive and intelligence tests as measuring innate potential (Jencks, 1998).

**Theoretical Framework**

Stress is an amorphous concept that entails many definitions in popular and scholarly writings. The theoretical framework for this study is guided by family stress theory. This section addresses the manifold ways in which scholars have defined stress and have examined stress in individuals and families.

The following are several definitions of stress from preeminent scholars in the field. “Family stress is change in the family’s equilibrium” (Boss, 2002, p. 61).
“Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being” (Lazarus & Folkman, 1984, p. 19). “Family stress occurs when feedback indicates the system does not have the requisite variety of rules to transform comfortably inputs into outputs that meet desirable standards” (Burr & Klein, 1994, p. 34). “Stress occurs when (1) resources are threatened with loss, (2) resources are actually lost, or (3) there is a failure to adequately gain resources following significant resource investment” (Hobfoll, 1998, p. 55). “Stress refers to that quality of experience, produced through a person-environment transaction, that, through either overarousal or underarousal, results in psychological or physiological distress” (Aldwin, 1994, p. 22).

It is readily apparent from reading the stress literature that various scholars and streams of scholarship have overlapping yet distinct views of the nature of stress. Important variations in the stress literatures are centered on several themes. First, the unit of analysis is either the individual or the family depending on the discipline. Second, some of the debate is centered on the role of resources versus perceptions/meaning/appraisals in the stress process. Third, differences emerge depending on whether the stressors of focus are major catastrophes, minor everyday hassles, chronic strains, or major life events. Fourth, differences emerge depending on the outcome of interest such as family adaptation or physical or psychological health. The nature of these themes is discussed below as they pertain to stress theory.
Psychology and Medical Perspectives

Two major areas of theoretical thinking about stress processes are relevant for this study. The first is research and theory building that comes from the psychology and medical literatures. The second is research and theory building on family stress management that comes from the family social science disciplines. While these two trajectories of stress research have generally remained separated from one another, there has been movement over the last several years to attempt to build more links between these disciplines (Boss, 1992; Hobfoll, 1992; Kazak, 1992).

Stress research in the psychological and medical literatures focuses primarily on individual stress and health. Therefore, the individual is the primary unit of analysis. Typically, research and theory building in this literature is concerned with mental and physical health outcomes and the role of the stress process in individual well-being. An example of this type of research and theory building is the study of the interrelationships among stressors, emotions, neuroendocrine systems, immunological functions, and health outcomes (Aldwin, 1994).

Although this line of research is very different than family stress research in its focus on the individual, health outcomes, emotions, and neurological and immunological processes, there is overlap between the perspectives. A number of scholars in the psychology literature focus on appraisal processes. Lazarus and Folkman (1984) wrote one of the most influential works on the concept of appraisal in stress and coping processes. “Cognitive appraisal is an evaluative process that
determines why and to what extent a particular transaction or series of transactions between the person and the environment is stressful” (p. 19).

These scholars posit that the subjective meaning or interpretation individuals have of a potentially stressful situation plays a major role in why or even whether a given situation leads to a stress experience. The concept of appraisal is very relevant to family stress theory especially in relation to the “C” factor (definition of the situation) in the ABC-X model of family stress. This concept is discussed more fully in the section below.

Family Stress Theory

A primary difference between family stress theory and stress theory emerging from psychological and medical literatures is that the family is the unit of analysis. Family stress research has roots in the work of Angell's (1936) and Cavan and Rank’s (1938) studies of family experiences during the depression and in Koos’ (1946) study of low-income working class families. However, the study of family stress and its development as an important theoretical perspective emerged through the research of Reuben Hill (1949; 1958) in his work with family separation and reunification during World War II. It was through this research that Hill developed the ABC-X model of family stress, which still serves as an important heuristic device (although it has been revised) for prominent researchers today. The ABC-X model is utilized below as a framework for discussing the major components involved in family stress processes.

The “A” factor refers to stressors that the family encounters. As mentioned above, an important theme for stress theory is to observe the nature of the stressors
families face. A stressor is “an occurrence of significant magnitude to provoke change in the family system” (Boss, 2002, p. 47). Stressors can originate from within the family or can come from sources external to the family. Boss (1988), Thoits (1983), and Wheaton (1994) are among several scholars who have carefully distinguished among different types of stressors. Important features of stressors include intensity (e.g., major catastrophe vs. minor everyday stressors), duration (acute vs. chronic), volition (volitional vs. non-volitional), and desirability (wanted vs. unwanted).

The “B” factor refers to a family’s resources that are at its disposal for resisting and managing stress. These include numerous factors such as a family’s adaptability and cohesion, family hardiness, a family’s sense of coherence, social support, income, and education. More will be said about resources, especially those that have been of particular importance in family stress research in the review of literature chapter.

The “C” factor refers to the meaning a family ascribes to a stressor event. It is this aspect of family stress theory that is analogous to appraisal in the psychology literature. Pauline Boss is the foremost family stress scholar to explore the “C” factor. This factor has received attention in her work on boundary ambiguity (1987) and on ambiguous loss (1999). When individuals or families encounter stressors, they react or do not react to that stressor. A number of theorists believe that one of the important differences among individuals and families in how they cope with or manage stressors is found in how they appraise given situations. For example, a family that recognizes its child has developmental disabilities is likely to respond differently than a family that is in denial. However, not all scholars are in agreement about how central perceptions
and appraisals are in the stress process (Hobfoll, 1992; 1998). The nature of this
disagreement in perspective is addressed below.

The “X” factor refers to whether and to what extent the family experienced
crisis. Basically, this is the outcome variable of interest in the model. This examines
what happened to the family in its functioning following a stressor event.

Walker (1985) criticized research and theory building that has emanated from
this model (and subsequent models) for focusing on major life events to the virtual
exclusion of studying chronic strains and daily hassles. “Emphasis on life events,
however, has led researchers to overlook everyday stress-related behavior and to expect
uniform responses to given occurrences” (Walker, 1985, p. 829). This focus on single
stressor events is not consistent with her contextual model which views stress and
change as constant.

Stress as Change

One of the ongoing debates among stress theorists is whether stress is change or
whether stress must be negative. Boss (1992) equates stress with change. Stress occurs
when there is a disturbance in the steady state of the family. However, according to this
view, stress is neutral. Change or stress can result in either a positive or negative
outcome.

Walker (1985) also views change and stress as equal. However, she challenges
the perspective of family homeostasis that undergirds much of the thinking in family
stress theory. This event-focused perspective tends to view family patterns and
interactions as stable or homeostatic until the family encounters a stressor or stressors
that are capable of producing change in the steady state of the family. The encounter with such a stressor or event then requires coping or managing activity by the family. Walker (1985) takes the view that change is constant and that families are always being required to cope with the stressors of everyday life. While it is true that some events will require more intense coping efforts, there is a hidden assumption of a no change baseline in family functioning during periods in which families do not face a major event. Unlike a number of family stress theorists, she places as much or more focus on everyday stressors and strains as she does on the impact of major life events.

Hobfoll and Spielberger (1992) argue that change in itself is not stressful. Rather, they contend that it is negative or undesirable events that are stressful and that are related to potentially harmful outcomes. Central to this perspective is that stress occurs when an individual or family is threatened with or actually experiences the loss of either resources or valued goals. “Stress is a state in which individuals’ resources are challenged by the environment in a way that overtaxes their coping ability and endangers their well-being” (Hobfoll & Spielberger, 1992, p. 100).

This view is consistent with Thoits’ (1983) review of literature, which found that there is virtually no relationship between desirable events and negative outcomes in the research literature. It is the negative, undesirable events and experiences that have association with adverse outcomes. Similarly, Lazarus (1984) noted that his prior work with hassles had proven much more fruitful than research on uplifts (positive aspects of daily living). Macnee and McCabe (2000) also found that hassles have a much more consistent and clear relationship with health outcomes than uplifts in their review of
literature. However, they also note that while the role of uplifts in the stress process remains unclear and findings on the relationship between uplifts and health have been inconsistent, a few studies have found some positive associations between uplifts and health outcomes.

Perceptions

Scholars also debate the centrality of perceptions in the stress process. Family stress theory has roots in symbolic interaction theory (Boss, 2002). Symbolic interaction theorists examine how human beings create meaning in the course of social interaction. Understanding how individuals are shaped and their construction of reality is shaped through interacting with others is of primary importance to symbolic interaction theorists. One of the major concepts from symbolic interaction theory that is relevant for family stress theory is the definition of the situation. This concept embodies the idea that if people define a situation as real the consequences are real (LaRossa & Reitzes, 1993). Thus, family stress theorists are concerned with understanding how individuals' perceptions of situations or events shape their responses. Additionally, as discussed above scholars from the field of psychology also emphasize the role of appraisals and perceptions in the family stress process.

Hobfoll (1998) questions this emphasis on cognitive appraisals. He places a greater emphasis on resources than on perceptions, which puts him at variance with scholars such as Aldwin, Lazarus, Folkman, and Boss. Although neither side neglects either resources or perceptions, there is a much different emphasis placed on them in these scholars’ works. For example, Hobfoll (1998) and Moos and Schaefer (1993) do
believe perceptions matter. However, they believe that an individual’s perceptions are deeply rooted in socially based norms and standards. Other scholars tend to emphasize personal experience more than social and cultural factors.

While currently there has been no resolution to this debate, these scholars have discussed one major factor that seems to be relevant for their differing views. Lazarus and Folkman (1984) and Hobfoll (1998) both present cogent arguments that individual appraisals seem to be more relevant for stressors that are high in ambiguity. Perceptions tend to be somewhat more similar and related to cultural norms when stressors are less ambiguous. This may also help explain why Boss (1999) views perceptions as central because much of her work centers on ambiguous losses.

Family Structure

Many of the ideas and concepts in family stress theory are shaped by ideas from General Systems Theory. One of the key concepts from systems theory relevant for family stress theory is boundaries. Boundaries help identify who is in the family system and who is not in the family system. The nature of the system is affected by the people who are inside or outside the family unit. For example, a family unit that has two parents is potentially different than a family unit that has one parent.

Systems theory not only helps in identifying who is inside the family system (clarifying boundaries) but also helps clarify the nature of the relationships and interactive processes in the family unit. A family system consists of the individuals in the family plus all of their interactions and the results of those interactions. The theoretical insights provided by systems theory suggests the possibility that the nature
of the interactions in two parent families may be different than that nature of the
interactions in single parent families. Salvador Minuchin's (1974) application of
corcepts from systems theory in his structural family therapy provides an example of
the different web of interactions that are likely to take place in various family systems.
For example, in a single parent family there is no marital dyad and the accompanying
dynamics from the spousal relationship. Also, in two parent families there are bi-
directional relationships between children and two parents. In single parent families
there is a bi-directional relationship with only one parent.

Although systems theory has had a major influence on family stress theory,
much research in this area has failed to explore the ways in which the stress process
might operate differently in different family forms. Theoretically, it at least seems
possible that stressors and resources that are of utmost importance for one type of
family structure (e.g. intact families) are not important for another type of family
structure (e.g. single mother families).

A few scholars in the stress field have called attention to this issue in their
writings. McCallum, Arnold, and Bolland (2002) and Watts-Jones (1990) have studied
stress in the lives of low-income African American women. They have criticized
research in the field for (a) focusing too much on samples in which the participants are
predominately white or middle income and (b) not giving attention to subgroups within
a study that has a diverse sample. Their research indicates that the chronic nature of the
stressors faced by the population they study differs from the nature of the stressors
faced by higher income families. Greef and Human (2004) and Heath and Orthner
(1999) have also noted the need for more research on the stress and adaptation process in single parent families.

Given the emergence of various family forms over the last several decades, there appears to be a great opportunity for and need for understanding variations in the intra family processes of different family forms. Unfortunately, most studies in the family stress field continue to either include only one type of family structure or treat family structure as a control variable.

Developmental Issues

Stress theorists are sensitive to individual and family developmental issues. Normal developmental tasks and transitions can be a stressor in their own right. For example, Boss (1980a) has written on the issues families face in boundary maintenance and organization when faced with normative and developmental junctures in the family life cycle. Aldwin (1994) also notes the importance of taking individual development into account. This is seen in her exploration of how coping develops over the life course. For example, she reviews research that indicates children’s strategies shift over time from external, behavioral coping to internal, cognitive coping. Olson and McCubbin (1983) emphasize the importance of being sensitive to a family’s life cycle stage when conducting research. They have paid special attention to family variations in the stress process as a function of life cycle stage.

Summary

Family stress theory provided the theoretical framework for this research study. For the purposes of this study the following definition of family stress was adopted.
Family stress is a process in which families attempt to manage stressors and organize themselves in such a way that individual well-being is maintained at a high level and that the family unit adapts successfully over time.

Perceptions also play a key role in this study. Perceptions are especially relevant as they relate to how much time and energy and how negatively mothers view minor aspects of daily stressors. The view adopted in this study is that the extent to which daily stressors are viewed as demanding time and energy is more salient than the actual time and energy invested. The current study also adopts the view of Boss (1992) that perceptions are of primary importance in the study of family stress. Although Hobfoll (1998) makes very cogent arguments supporting a more resource based perspective, this study takes the view that perceptions are likely to become highly important to families whose resources are most depleted. If families lack important tangible resources (e.g., money, transportation, adequate housing), their primary hope for improvement might lie in their perceptions or outlook on the stressors of life.

In this study, the negative aspects of a stressor are viewed as more important than the positive aspects. This is similar to the views of Thoits (1983), Hobfoll (1998), and Lazarus (1984) that undesirable, negative events are much more problematic for individuals and families than are desirable, positive events. While positive aspects of stress or uplifts may still hold some utility in research, it is readily apparent that stressors that are appraised as negative are much more strongly related to outcomes than are uplifts.
This study takes the position that resources (the “B” factor) are important in helping families and individuals adapt successfully in the stress process. While perceptions are important, family stress theory does point to a number of resources that can aid in family stress management. As discussed above, most scholars recognize the importance of both factors in the stress process.

This study also takes the view that the stress process might operate differently in various family structures. McCallum et al. (2002) have suggested that the stressors that are salient for low-income African American women are different from the stressors that are salient for middle and upper-income families. Therefore, the current study adopts the view that the stressors viewed as salient and as harmful or threatening may vary by family structure. It is also suggested that the resources used to adapt successfully in the stress process may vary by family structure.

This study adopts the viewpoint of Walker (1985) that stress and change are constant for families. More understanding is needed regarding family experiences with daily stressors and it is argued in this study that this micro level of analysis may hold much utility for understanding family stress processes.

Objectives and Hypotheses

The purpose of this study is to explore the relationships among families’ daily hassles, families’ resources (hardiness, adaptability, and cohesion), and children’s cognitive ability. Specific objectives included: (a) examine if living in a family environment characterized by more frequent and more negative daily hassles is related to children’s cognitive ability, (b) examine if family resources, specifically family
hardiness, family adaptability, and family cohesion are related to children’s cognitive ability, and (c) examine if the relationship of daily hassles and family resources to children’s cognitive ability are similar or different in first marriage families as compared with single mother families. Given the purpose and objectives of this study, the following were hypotheses developed for this study for intact families:

1) Family daily hassles are negatively related to children’s cognitive ability.
2) Family resources are related to children’s cognitive ability.
2a) Family hardiness is positively related to children’s cognitive ability.
2b) Family cohesion is positively related to children’s cognitive ability.
2c) Family adaptability is related to children’s cognitive ability.

Given the purpose and objectives of this study the following hypotheses were developed for this study for single mother families:

1) Family daily hassles are negatively related to children’s cognitive ability.
2) Family resources are related to children’s cognitive ability.
2a) Family hardiness is positively related to children’s cognitive ability.
2b) Family cohesion is positively related to children’s cognitive ability.
2c) Family adaptability is related to children’s cognitive ability.

Limitations and Assumptions

The following are limitations relevant for interpretation of the findings from this study:

1. The data in this study are cross-sectional.
2. The data selection procedures did not use a true random selection procedure.
3. Data collected on family measures utilized in this study are based only on mothers’ reports.

The following are assumptions relevant to this study:

1. It is assumed that all responses to all measures are valid and reliable.

2. It is assumed that participants completed the questionnaires and assessments for this study in a forthright and honest manner.
REVIEW OF LITERATURE

Scholars who study the stress process in individuals and families have an interest in how stressors (both major and minor) are related to individual and family well-being and an interest in characteristics or resources individuals and families possess that help them combat the often adverse consequences of stressors on well-being. The following themes relevant for this study emerged from a review of the stress literature. First, major life events have been studied much more frequently than daily hassles. Second, research on daily hassles and hardiness has been utilized much more frequently in studies focusing on psychosomatic health in comparison to studies focusing on non-health related family or child outcomes. Third, virtually no studies exist that have examined the relationship between daily hassles and children’s cognitive ability or between family hardiness and children’s cognitive ability.

Based on these themes, the organization of this chapter is as follows. First, research on stressors is discussed. An overview of the relationship between stressors and health is provided, as is an overview of events oriented research in the family stress field. A more detailed analysis is then provided from the scant research that has focused on daily hassles with family and child outcomes as the unit of analysis. These studies have generally focused on children’s behavioral problems and marital tension and spillover. Next, research on family resources is discussed. A brief overview of the early research and historical development of hardiness, adaptability, and cohesion is provided. A more detailed analysis is provided of research focusing on family and child
outcomes. Finally, the chapter concludes with a discussion of research on children’s
cognitive ability that has utilized constructs related to the purpose of this study.

Stressors

Life Events, Daily Hassles, and Health

Research from the mental and physical health literatures has generally examined
the effects of life events and daily hassles on individual well-being (physical and
psychological). The unit of analysis (individual vs. family) and outcomes of interest
(health vs. cognitive ability) in this literature are different than the focus of the current
study. However, a brief history of life events and daily hassles research from these
areas is given because it was in this literature that these concepts and measures
developed.

Life events are major stressors (death of a spouse, getting fired from work,
divorce) that occur infrequently and are generally of substantial intensity. Scholars
focusing on life events research have often used the scale devised by Holmes and Rahe
(1967) or derivatives of that scale. Daily hassles are minor stressors that occur
frequently in comparison to life events.

Stress research has consistently produced findings that link both life events and
daily hassles with adverse physical and mental health outcomes in adults, adolescents,
and children (for comprehensive reviews of life events research on adults, see Thoits,
1983; 1995; for a review of life events research on children and adolescents, see
Compas, 1987; for a review of daily hassles research, see Macnee & McCabe, 2000).
However, some researchers have found daily hassles to be better predictors of both
psychological well-being (Chamberlain & Zika, 1990; Monroe, 1983) and physical health status (Ruffin, 1993; Weinberger, Hiner, & Tierney, 1987) than life events. Several studies have found relationships between daily hassles and physical health status that span a wide range of contexts and participant samples (DeLongis, Folkman, & Lazarus, 1988; Landreville & Vezina, 1992; Stuart & Garrison, 2002; Weinberger et al., 1987; Zarski, 1984).

Events-Focused Research from Family Stress Field

In family stress research, the family is the primary unit of analysis. Scholars working within the family stress research perspective have primarily focused on major stressors or life events and individual or family adaptation. The following are studies indicative of the type of research being conducted in this area.

The development of family stress research owes much of its history to studies centered on the effects of war related stressors on the family. As discussed previously, many theoretical ideas grew out of Reuben Hill’s (1949) foundational work on war separation and reunion as a stressor event that potentially precipitated a crisis (and subsequent adjustment) in the family. This field of study was heavily influenced in the 1970s and 1980s by studies on families with a family member who was a Prisoner of War (POW) or Missing in Action (MIA) during the Vietnam War. This stressor event was a major focus of prominent scholars such as Hamilton McCubbin (McCubbin, Hunter, & Dahl, 1975) and Pauline Boss (Boss, 1977; 1980b). Studies of the effects of this traumatic event continue today (Campbell & Demi, 2000).
Research on Alzheimer’s disease has been prolific in the last decade and has also had a major influence on the field. Beyond understanding the effects of this particular stressor, contributions have been made to the field as a whole particularly through clarifying further the concepts of boundary ambiguity and ambiguous loss (Boss, Caron, Horbal, & Mortimer, 1990; Caron, Boss, & Mortimer, 1999).

The study of economic stressors on family life has a long history in family stress research as well. Some of the earliest studies of family stress focused on hardships families faced during the Great Depression (Angell, 1936; Cavan & Rank, 1938). In recent years, Conger, Elder, and colleagues (Conger, et al., 1992; Conger, Rueter, & Elder, 1999; Elder, Conger, Foster, & Ardelt, 1992) have made a significant contribution to the field’s understanding of the effects of economic hardships on families through their longitudinal studies of families in Iowa.

A noteworthy contribution to family stress research was the study by Olson and McCubbin (1983) with over 1,100 families. Most of these families were intact couples in their first marriage and they were predominately white. In this study the researchers implemented measures of life events and strains as the stressors of interest. While they were not measuring daily hassles per se, they did note some findings relevant for this study. They found that couples in the stage of having preadolescent school-aged children were particularly challenged with intra-family strains (father’s time away, husband-wife conflict, and chores not getting done) and with strains associated with increased responsibilities. They also found a fairly strong relationship between life events and strains and dissatisfaction with marital and family life. In their summary, the
authors state that “while major social and family stressors (death of a family member, unemployment) were important, it was often the day-to-day hassles that appear to be of importance as these events have a cumulative impact” (Olson & McCubbin, 1983, p. 236).

To summarize, researchers have given very little attention to daily hassles and their effects on families. A review of the literature also indicates that children’s outcomes, particularly preadolescent school-aged children, have not often been studied. The next section examines a small line of research that has been generated that utilizes daily hassles, focuses on families, and examines children’s outcomes.

Daily Hassles in Relation to Child and Family Outcomes

Researchers who have focused on family stress and children’s outcomes have generally used life events as the stressor of interest. Life events have been related to a number of child outcomes including lower self-esteem (Nelson, 1993), social competence (Crnic & Greenberg, 1990), behavior problems (Campbell & Ewing, 1990; Campbell, Pierce, Moore, Marakovitz, & Newby, 1996; Myers, Taylor, Alvy, Arrington, & Richardson, 1992; Rossman & Rosenberg, 1992), and interactions with peers at school (Poag, Cohen, Henggeler, Summerville, & Ray, 1992).

Few researchers have studied the effects of daily hassles (whether children’s or parents’) on children’s outcomes. In 1990, Banez and Compas noted that one of the primary ways stress research on children has lagged behind research on adults and adolescents is in studying the role of daily hassles. Unfortunately, little progress has been made in this area, especially research that has focused on outcomes other than
mental and physical health. Particularly rare are studies of how children are affected by parental reports of daily hassles. Below, I highlight a few studies that have focused on child outcomes other than psychosomatic health. The few studies that do exist have generally focused on children’s behavior problems.

Thomson and Vaux (1986) did not find a direct relationship between parents’ daily hassles and their children’s emotional problems. Compas, Howell, Phares, and Williams (1989) found partial support for their model in which parental daily hassles affected parental symptoms, which in turn affected children’s behavior problems. Compas and Williams (1990) found that mothers’ daily stress was correlated with their reports of children’s behavior problems in both single parent and dual parent families. Banez and Compas (1990) found that mothers’ daily hassles were associated with children’s anxiety (reported by the child) and children’s internalizing problems (reported by the fathers). Creasey, Mitts, and Catanzaro (1995) found that children’s self-reported daily hassles were related to parents’ reports of their children’s behavior problems (externalizing and total).

Belsky, Woodworth, and Crnic (1996) found that mothers high in daily stress (as measured by a combination of a hassles scale and hassles of parenting scale) were more likely to have toddlers with more externalizing behavior problems. A similar finding was also reported in Belsky, Crnic, and Gable (1995). Black and Jodorkovsky (1994) found that mothers’ reports of environmental stress (their measure is somewhat akin to general daily hassles) were related to their toddlers’ behavior problems.
A few scholars have studied the role daily hassles play in marital tension and spillover from the marital dyad to the parent-child dyad. These studies demonstrate how a contextual environment in which hassles are prevalent could be related to child outcomes and how one family members’ experience of daily hassles (e.g., parent) can transfer to other members of the family system (e.g., child). Some of these studies have utilized daily diary methods as a measure of daily hassles.

Almeida, Wethington, and Chandler (1999) found that in families in which the mothers worked full-time, both mothers and fathers were more likely to have intense interactions with their child on days when they experienced other minor stressors as opposed to relatively hassle-free days. Bolger, DeLongis, Kessler, and Wethington (1989) found that couples experienced more marital tension on days when they had experienced another daily stressor. In a study of fathers with a child in Head Start, Fagan (2000) found that fathers’ involvement with their children decreased on days in which they experienced increased daily hassles. Pett, Vaughan-Cole, and Wampold (1994) found that mothers’ daily hassles were associated with poorer mother-child interactions. Taken together, these studies indicate that parents’ experiences of daily hassles can have adverse effects on both the marital dyad and the parent-child dyad.

Resources

Individual and Family Hardiness

As noted in the previous section researchers have consistently found that individuals and families that experience greater amounts of stress tend to have more negative outcomes whether the stress measure has been life events or daily hassles.
research in the stress-outcome area has developed, greater emphasis has been placed on finding resistance resources that help protect individuals and families from the adverse effects of stressors.

Hardiness has been conceptualized as a potentially important resistance resource that might enhance individual and family well-being. In the research areas that have focused on stress and individual and psychosomatic health outcomes, Kobasa (1979) viewed hardiness as a constellation of individual personality characteristics and identified commitment, challenge, and control as three components of the hardiness construct. Commitment is “a tendency to involve oneself in whatever one is doing or encounters” (Kobasa, Maddi, & Kahn, 1982, p. 169). Commitment also involves finding events meaningful and having an active, rather than passive, involvement in the situations and events of life.

Control is “a tendency to feel and act as if one is influential in the face of the varied contingencies of life” (Kobasa et al., 1982, p. 169). The control category captures the idea that people can take action and influence events. Helplessness is the opposite of control.

Challenge is “the belief that change rather than stability is normal in life and that the anticipation of changes are interesting incentives to growth rather than threats to security” (Kobasa et al., 1982, p. 170). Challenge is related to one’s perceptions and appraisals of events. Being high on challenge is associated with viewing events as more stimulating or in a more positive light than being low on challenge.
McCubbin, McCubbin, and Thompson (1991) have extended the work of Kobasa and associates beyond the individual level of assessment to the family level. They view hardiness as a dispositional style that can characterize an entire family. These researchers added the concept of confidence to the hardiness construct in their development of the Family Hardiness Index. Confidence refers to the family’s ability to endure stressors with a sense of interest and meaning.

Early research focused on the relationship between individual hardiness and psychosomatic health outcomes and was generated in the psychology literature. Fairly consistent support was found for a direct relationship between hardiness and health outcomes such as mental and physical illness (Kobasa et al., 1982; Roth, Wiebe, Fillingim, & Shay, 1989) and depression (Hull, Van Treuren, & Virnelli, 1987; Ganellen & Blaney, 1984; Rhodewalt & Zone, 1989).

This early research produced inconclusive results on whether hardiness functioned as a moderator of the stress-illness relationship. Bigbee (1992) found some support for hardiness as a moderator of stress to illness. Kosaba et al. (1982) found that hardiness had a main effect on health and moderated the stress-illness relationship in their study. Nowack (1986) found that hardiness had a protective function against psychological distress and that hardiness helped buffer type A individuals from experiencing burnout. Funk and Houston (1987) and Roth, Wiebe, Fillingim, and Shay (1989) found no hardiness moderator effects in their studies. Hull, Van Treuren, and Virnelli (1987) suggested that if hardiness does provide buffering effects, they are weak and situation specific.
In the 1990s both individual and family hardiness began receiving attention in nursing research. Scholars conducting research in the nursing field have found consistent although modest relationships between hardiness and health outcomes (for a review of nursing research see, Ford-Gilboe & Cohen, 2000). There is growing evidence that family hardiness is a particularly important resistance resource for families that have a member with a chronic illness or disability (Huang, 1995).

Failla and Jones (1991) found that the positive association between coping skills and family hardiness helped strengthen family functioning in these families. Clark (2002) examined individual and family hardiness among caregivers of disabled older adults. Clark found that individual hardiness was negatively associated with fatigue and both individual and family hardiness were related to depression among caregivers. Family hardiness was also related to fewer memory problems and behavior problems for the disabled adult who was receiving care. In a study of American and Icelandic parents providing care for children with chronic asthma, Svavarsdottir and Rayens (2003) found that family hardiness mediated the relationship between family demands and mothers’ perceptions of their children’s health status.

Judge (1998) explored the relationship among various aspects of coping and the four components of family hardiness in families with a child with a disability. Although Judge was not examining family hardiness in terms of a resistance resource buffering the effects of stress on outcomes, the author did find that parents who proactively sought informational and social support tended to be stronger in components of family hardiness. It appears that for families that have a member with a disability,
family hardiness is especially relevant as it relates to the family’s use of effective coping skills.

Family hardiness has emerged as a potentially important resistance resource in the family stress literature. However, it has only received a modest amount of attention in empirical studies to date. Theoretically, some scholars have incorporated hardiness into research using the concepts of sense of coherence and family schema. Antonovsky (1998) has developed the concept of sense of coherence in his work on the salutogenic model of health. His work in this area focuses on what makes people healthy or well as opposed to focusing on what causes or prevents a particular disease (pathogenesis). The sense of coherence is a dispositional orientation that expresses an individual’s or family’s view that the world is comprehensible (extent to which the problem is clear), manageable (requisite resources are available), and meaningful (extent to which demands are worth coping with). Antonovsky connects the meaningfulness component with the commitment dimension of Kobasa’s hardiness construct.

Patterson and Garwick (1998) view Kobasa’s construct of hardiness (individual level) as similar to their own family level construct of family worldview (level 3). Also, they find some similarity among the dimensions of the family global meanings construct and the dimensions of hardiness. Specifically, the authors compare shared purpose with commitment, frameability with challenge, and shared control with control.

McCubbin, Thompson, Thompson, Elver, and McCubbin (1998) reported findings on the research they have conducted with Hawaiian families. They found family hardiness to be an important explanatory resistance resource in family
dysfunction. Some of their results suggested that family schema and coherence affect
dysfunction indirectly through hardiness. They also suggested that the family’s schema
might help shape resistance resources such as hardiness.

Greeff and Human (2004) studied adaptation in families that had experienced
the death of a parent. They found family hardiness to be an important factor in
families’ adjustment to the loss of a parent. They also found family hardiness to be
associated with families’ sense of coherence.

Campbell and Demi (2000) examined emotional distress in adult children with a
missing in action father. The authors found that some components of the Family
Hardiness Index were related to grief and distress among these adult children.
Specifically, commitment and control were related to thoughts of the deceased and
avoidance. Feelings of existential loss were related to challenge and control.

Stephenson and Henry (1996) utilized family stress theory in their study of high
school students’ substance use patterns. Their study incorporated a number of family
characteristic variables. Only paternal substance use and family hardiness (as measured
by the Family Hardiness Index) were related to lower substance use by these
adolescents. The authors contend that family hardiness provides an important buffering
effect.

Carson, Araquistain, Ide, Quoss, and Weigel (1994) studied hardiness in farm
and ranch families in Idaho. They found that family hardiness was negatively related to
husbands and wives’ reports of marital discord and distress. Family hardiness was
positively related to their reports of quality of life in the family.
To summarize, most studies incorporating individual and family hardness have focused on individual health outcomes. Researchers have consistently found evidence of a direct effect of hardness on health; however, researchers have found inconclusive and weak evidence that hardness has a buffering effect on the stress-illness relationship. Family stress scholars have begun incorporating family hardness in empirical research and have found family hardness to be related to outcomes such as family dysfunction, marital discord, adjustment to the death of a parent, emotional distress, and adolescent substance use.

Family Adaptability and Cohesion

Olson and colleagues (Olson, Sprenkle, & Russell, 1979; Olson, Russell, & Sprenkle, 1983) utilized the adaptability and cohesion dimensions of family behavior as encompassing constructs under which they subsumed dozens of central concepts in family systems theory. Family cohesion is “the bonding that family members have toward one another and the degree of individual autonomy they experience” (Olson & McCubbin 1982, p. 49). Family adaptability is “the ability of a marital or family system to change its power structure, role relationships, and relationship rules to situational and developmental stress” (Olson & McCubbin, 1982, p. 51).

Olson and McCubbin (1983) examined adaptability and cohesion extensively in their large research project. They studied these concepts separately and together as they related to a construction of family types (balanced, mid-range, and extreme). One of the important findings in their research was that the relationship between family type and outcome varied by life cycle stage. Whereas the balanced family type was most
functional for families with and adolescent, more extreme (probably mid-range for this non-clinical family sample) types were most functional for young married couples without children. Other important findings included fairly strong correlations between family type and marital and family satisfaction and between adaptability and cohesion and marital and family satisfaction (examined independently, not as family type).

Lavee, McCubbin, and Patterson (1985) studied the role of adaptability and cohesion in an empirical test of the Double ABC-X model. In examining the effects of overseas relocation on Army families, they found that adaptability and cohesion had a positive effect on the level of family adaptation. The authors found that the effects were direct for these resources; they did not find that these resources buffered the stressor-adaptation relationship.

Regarding child outcomes several scholars have found cohesion and adaptability to be important resources. Dreman and Ronen-Eliav (1997) found a negative relationship between both adaptability and cohesion and mothers’ reports of adolescent behavior problems. In a study of inner-city youth, Kliwer and Kung (1998) found that cohesion moderated the relationship between children’s self-reported hassles and both internalizing and externalizing behavior problems, whereas adaptability moderated the effects of hassles on externalizing behavior problems only. Smith, Prinz, Dumas, and Laughlin (2001) found a relationship between cohesion and children’s behaviors in a sample of African-American kindergarten children. Weist, Freedman, Paskewitz, and Proescher (1995) found cohesion to buffer the effects of stress on adolescent boys’ discipline problems at school. Weiss and Sneed (2002) found a relationship between
adaptability and cohesion and toddler's behavior problems. However, Weiss, Goebel, Page, Wilson, and Warda (1998) did not find a relationship between adaptability and cohesion and the behavioral problems of preschool Latino children. On an individual level, Amerikaner and Genevieve (1994) found cohesion to be a key interaction variable related to individual psychological health among a sample of college students.

To summarize, adaptability and cohesion are broad constructs that have had much utility in the family stress field. In relation to children's outcomes, several studies have found adaptability and cohesion to be related to children's behavior problems.

Family Structure

As discussed in chapter one, investigating variations in the stress process by family structure may be a fruitful area of exploration. Some previous research relevant to the current study indicates that this may be the case.

Prior research has found effects of family structure on children's outcomes (McLanahan & Sandefur, 1994). In an analysis of the results of 12 empirical studies contained in the edited book Consequences of Growing Up Poor (Duncan & Brooks-Gunn, 1997), McLanahan (1997) found that parental absence was consistently negatively related to children's school achievement, behavioral problems, and psychological problems. Amato's (2000) review of the divorce literature also found consistent negative relationships between divorce and children's academic success, conduct, and psychological adjustment.

Peters and Mullis (1997) found that children in stepfamilies had worse academic outcomes than children living with both biological parents; however, children in single
parent families did not. McLanahan (1997) and McLanahan and Sandefur (1994) found a relationship between family structure and children's outcomes even when controlling for income. They also found almost no effect on outcomes for children in widowed families. Additionally, they found that children in stepfamilies do somewhat better than children in single parent families in educational attainment, but somewhat worse in behavioral and psychological problems.

Biller and Kimpton's (1997) review of research on elementary school-aged children suggests that children benefit from having involved and nurturing parents. It also appears that fathers provide a unique contribution to their children's cognitive development. Their summary of the research indicates that children who experience the presence and involvement of their fathers and who have fathers that display positive parenting practices such as warmth tend to have higher levels of academic competence and are better adjusted at school.

The study by McCallum et al. (2002) indicates that the stress experiences for low-income African American women differ from the stress experiences of white families and non-poor families. Specifically, the sources of stress experienced by these families tend to be chronic in nature and tend to center around a lack of adequate resources and problems in role functioning. These scholars contend that these sources of stress are much more salient to everyday life and outcomes for these families than is indicated in research that utilizes traditional measures of life events and daily hassles. They also found that three themes ran across all categories of stressors discussed by the women in their study. They found that the participants' conveyed a sense of lacking
control over events in their lives, of viewing the circumstances of their lives as undesirable, and of feeling alienated from other people and the larger society.

As discussed previously, prior research has found hardiness to be an important family resource for various types of family structures. However, McCubbin et al. (1998) found that hardiness was of more central importance in predicting family dysfunction for single parent families than it was for predicting family dysfunction for two parent families. These researchers suggest that single parent households may be required to be more self-sufficient than two parent households. Greef and Human (2004) also found that hardiness was an important resource for single parent families in their adjustment to the death of a spouse/parent.

Cognitive Ability

Researchers have conducted voluminous studies on stress and outcomes; yet, virtually no stress researchers have examined the relationship between stressors and children’s cognitive ability. Plante, Goldfarb, and Wadley (1993) noted a decade ago that “our literature review of studies published since 1980 . . . revealed very few studies that had systematically examined the association between stress and coping variables and aptitude/achievement testing performance” (p. 260). These scholars examined the relationship between stressful events (measured by DSM III-R Axis IV) and testing performance (as measured by Woodcock-Johnson Test - Revised) in a sample of 100 children ages 6 to 16. They found that this measure of stress was associated with children’s testing performance. They found the strongest associations between test performance and physical and sexual abuse and parental separation and divorce.
Cunningham, Hurley, Foney, and Hayes (2002) examined the relationship between life events and academic achievement in a sample of 84 African American high school students. Life events were self-reported by the adolescents. The authors found a negative relationship between these students’ self-reported life events and their grade point average in high school.

Weist et al. (1995) examined the relationship between stress (measured by a combination of life events items and daily hassles) and several child outcomes. They found that life events in interaction with social supports were related to girls’ grades (social supports actually increased girls’ vulnerability). They also found that life events in interaction with family cohesion were related to negative teacher comments on girls’ report cards (cohesion actually increased girls’ vulnerability).

A few studies have examined the relationship between family adaptability and cohesion and academic achievement. Smith et al. (2001) did not find a relationship between family cohesion and kindergarten students’ reading achievement. Masselam and Marcus (1990) did find a more balanced family type (adaptability and cohesion) present in families of youth who were successfully progressing in public schools as compared with youth who were in alternative schools because of their lack of success in public schools. When examined separately, cohesion, not adaptability, distinguished the two groups. Unger, McLeod, Brown, and Tressell (2000) found that cohesion mediated the relationship between parental conflict and grade point average for adolescent girls. While not examining cognitive ability directly, the studies by
Masselam and Marcus (1990) and Unger et al. (2000) suggest that a cohesive family environment might be an important resource in the development of cognitive abilities.

Prior research has found effects of family socio-demographic characteristics on children's outcomes. Research on the effects of income and poverty on children has received scholarly attention (Danzinger, Sandefur, & Weinberg, 1994; Duncan & Brooks-Gunn, 1997). Scholars have found relationships between income and intelligence and achievement test scores (Brooks-Gunn, Klebanov, & Duncan, 1996; Peters & Mullis, 1997) and educational attainment (Teachman, Paasch, Day, & Carver, 1997).

Racial differences in test scores and educational attainment has been well documented and often debated (e.g., Herrnstein & Murray, 1994; Jencks & Phillips, 1998). A discussion of the possible causes of this gap is well beyond the scope of the current study. However, because such a gap has consistently been found, the mothers' race is included as a control variable in this study.

Summary

The following is a summary of cogent findings from the literature. First, daily hassles are consistently related to psychosomatic health. Second, hardiness has consistently had a direct relationship with psychosomatic health; however, there is only weak evidence that hardiness acts as a buffer in the stress-illness relationship. Third, some studies have found that adaptability and cohesion are associated with satisfaction and children's behavior problems. Evidence that adaptability and cohesion have a buffering effect has been inconsistent and inconclusive. Fourth, only a modest number
of studies have examined the relationship between daily hassles and family hardiness and non-health related outcomes. In studies that have examined other outcomes, daily hassles have been associated with children's behavior problems and tension in the marital and parent-child dyads; whereas, family hardiness has been related to family dysfunction, marital discord, emotional distress, adjustment to a parent's death, and adolescent substance use. Fifth, more clarity is needed on how stressors and resources operate differently among various family forms.

Finally, scholars have conducted scant research on the relationships between the constructs of interest in this study (daily hassles, family hardiness, adaptability, and cohesion) and children's cognitive ability. A few studies have examined the relationship between adaptability, cohesion, and academic outcomes with mixed results. Of relevance to this study, the socio-demographic variables included in this study have been associated with cognitive ability.
METHODOLOGY

The purpose of this study was to explore the relationships among families’ daily hassles, families’ resources (hardiness, adaptability, and cohesion), and children’s cognitive ability. This study was a component of a larger research project by Dr. Garrison investigating “family stress and children’s development within and across time,” for the Louisiana Agricultural Experiment Station and Louisiana State University. This larger study longitudinally examined the dynamic nature of family stress and children’s cognitive development. In the following chapter, the participants and data collection procedures, measures, and a description of the statistical analyses employed for the current study are described.

Participants and Sampling

The data for this study were collected in the first wave of the larger longitudinal study. Prior to data collection, approval for the study was received from the Institutional Review Board, and permission was solicited from various school boards to contact principals regarding the research project. Of the principals who were contacted (n = 63), 22 agreed to participate with 19 of those schools actually participating in the first wave of the study. In late 2000, consent forms were sent home with first and third grade children in each of the participating schools. From these 19 schools, parental permission was received from approximately 431 families. In January 2001, surveys were sent to these consenting families with mothers and fathers receiving separate surveys. The surveys included socioeconomic-demographic characteristics, assessments of family stress and parenting styles, as well as stamped return envelopes
for the completed surveys. Families were offered $25.00 for their participation in the study. Of these 431 families, parental surveys were returned from 290 families for a response rate of 67%.

The children from these 290 families were interviewed at their schools during the spring of 2001. Participating students accompanied research assistants to a quiet location designated by the principal where a standardized assessment of cognitive ability was administered on an individual basis. Children were shown various words, pictures, or figures and were asked questions pertaining to the visual figures. The research assistant marked the child’s answers on a separate form that was not shared with the child. The assessment was administered according to the rigorous protocol established by Woodcock and colleagues (2001). Time limits on various sections were observed in a uniform fashion and children were not informed of their performance on the assessment. This assessment was administered to children in the morning (prior to 12:00 PM) in order to maintain some consistency in respondent concentration and alertness. Nine of the 290 children were not interviewed because they either moved out of the area, transferred to a school that was not included in the study, or did not meet the sampling criteria (e.g., they were too old or had a disability).

Focusing on families with a child in first grade or third grade has the advantage of providing some controls when considering developmental issues. On the individual level, this is generally considered a less dramatic developmental stage for children than the early years and adolescence. From the family standpoint, families in the young couples without children, empty nest, and retirement stages are excluded. While there
is certainly overlap among stages in many families with children (e.g., a family could have a newborn and adolescent at the same time), this study does allow for an examination of a particular stage in the family life cycle (families with preadolescent school-age children) as it relates to the age of the target children in the study. Generally speaking, this stage in the life cycle is somewhat less tumultuous than the stages associated with the acquisition of a newborn or the adolescent and launching stages. Because the transitions and tasks associated with each stage of the individual and family life cycles can produce stressors of their own, this particular age and family stage are viewed as optimal because of their relative “calm” as compared to other stages.

In order to test the objectives of this study, only mothers who were in their first marriages (intact families) or mothers who were divorced, never married, or separated (single mother families) were included in the study. Children whose mothers reported being remarried, living together but not legally married, or widowed were excluded from this study. Although these family structures are of interest, there was an insufficient number of these families to utilize the appropriate statistical techniques. The decision was made not to combine remarried families with first marriage families because the research of scholars such as Peters and Mullis (1997), McLanahan and Sandefur (1994), and Biller and Klimpton (1997) indicates that the stepfamily structure is associated with unique dynamics and outcomes for children as compared with first marriage families.

It is not clear that similar differences exist for various single parent structures. Amato (2000) contends that differences exist within categories of single parent families
in relation to child outcomes. However, McLanahan (1997) reports that the parent's absence is more important than the cause of the absence and that the outcomes are similar for children whether their single parent is never married, divorced, or separated. Both scholars note that widowhood is exception. Therefore, the decision was made to combine divorced, separated, and never married mothers into one group, while widows were dropped from the study. Mothers who were in the category of living together, not legally married were deemed to be in a unique family structure as compared with intact families (Waite & Gallagher, 2000) and were not included in the study.

This procedure provided a sample of 129 mothers from intact families and 103 mothers from single parent households. Nine mothers from intact families were excluded from the study because of incomplete data. Eighteen mothers from single parent households were excluded from the study because of incomplete data. This yielded a final sample of 120 mothers from intact families and 85 mothers from single parent households.

The mothers from intact families indicated that their races were white (n = 67), African American (n = 45), Hispanic (n = 4) and other (n = 4). The average income for these families was in the range of $40,000 to $59,999. The average education for the mothers was some college or trade or technical school.

The mothers from single parent families indicated that their races were white (n = 17), African American (n = 63), Hispanic (n = 1), American Indian (n = 1), other (n = 2), and one mother's race was missing. The average income for these families was in the range of $10,000 to $19,999. The average education was split between the
categories "completed high school or GED equivalent" and "some college or trade or technical school."

Measures

Family Daily Hassles

The family’s experiences of daily hassles were obtained by the mothers in this study. Data were obtained by the Family Daily Hassles Inventory (FDHI) (Garrison et al., 1998). The FDHI was developed as a refinement of an earlier unidimensional version of a family daily hassles assessment instrument (Lee, 1986). The FDHI contrasts with all of the other assessments of daily hassles in that the family rather than the individual is the unit of interest. The FDHI assess each item on three dimensions: time and energy, negative influence, and positive influence.

The FDHI contains 23 items that represent aspects of daily family life: child care or school-related matters, pet care, household chores, meal preparation, errands, home repairs, yard work, car care, transportation, traffic, family financial matters, household paperwork, work duties, use of leisure time, community and church involvement, and relationships with one’s spouse, children, parents, in-laws, siblings, friends, neighbors, and people at work. It should be noted that each of these aspects of family daily life are neutral as they are presented to the participants. Compas (1987) remarked that a good measure should obtain some form of subjective appraisal from respondents. Therefore, respondents completing the FDHI in this study indicated their perceptions of the degree to which the daily life of their family is affected by each item’s dimension: time and energy, negative influence, and positive influence. The five
possible responses for each dimension are (1) "none", (2) "slight", (3) "moderate", (4) "a lot", and (5) "a great deal".

In the current study only the time and energy and negative influence dimensions are utilized. This approach is in accordance with the perspective discussed in the first chapter that negatively appraised stressors are more strongly associated with outcomes than positively appraised stressors. The items from both dimensions were summed to create a single variable. The assessment has adequate reliability with the Cronbach's alpha ranging from .77 to .88 (Rollins, Garrison, & Pierce, 2002). The assessment was found to be as valid as the more commonly used Hassles Scale (Kanner et al., 1981).

Family Hardiness

The Family Hardiness Index (McCubbin, McCubbin, & Thompson, 1991) is a 20 item assessment that measures a family's hardiness with a “we” rather than an “I” orientation. Hardiness is characterized by four components: co-oriented commitment (the family’s sense of internal strengths, dependability, and ability to work together), confidence (sense of being able to plan ahead, being appreciated for efforts, ability to endure hardships and experience life with interest and meaningfulness), challenge (effort to be innovative and active, to experience new things, and to learn), and control (sense of being in control of family life rather than shaped by outside events and circumstances).

The five possible responses for each item are "not applicable", "false", "mostly false", "mostly true" and "true". Items were calculated according to the computations recommended by the authors of the index. McCubbin et al. (1987) reported a
Cronbach's alpha of .82 and Stephenson and Henry (1996) reported a Cronbach's alpha of .87.

Family Adaptability and Cohesion

Data on family adaptability and cohesion were obtained by the Family Adaptability and Cohesion Evaluation Scale-II (FACES-II) (Olson, Porter, & Bell, 1982). The authors recommend using this version of the FACES assessments for research purposes.

FACES-II consists of 30 items rated on a 5-point Likert-type scale, indicating how often a stated behavior was used. Response choices range from almost never to almost always. FACES-II has 14 items that assess the level of family adaptability and 16 items that assess the level of family cohesion. A few examples of these items are (a) "family members are supportive of each other during difficult times," (b) "our family does things together," (c) "it is difficult to get a rule changed in my family," and (d) "we shift household responsibilities from person to person." Items were calculated according to the computations recommended by the authors of the scales.

Higher scores on the cohesion measure indicate a higher level of bonding or closeness among the family members. According to the nomenclature of Olson and McCubbin (1982) the categories of cohesion proceed from disengaged to separated to connected, to enmeshed. Higher scores on the adaptability measure indicate a higher level of flexibility in the family system. According to Olson and McCubbin's (1982) nomenclature the categories of adaptability proceed from rigid to structured to flexible to chaotic.
FACES-II has demonstrated good validity with a variety of populations (Olson, 1986). Cronbach's alpha for FACES-II typically ranges from .78 to .92 (Olson et al., 1982).

Children’s Cognitive Ability

Children’s cognitive ability was assessed using the Brief Intellectual Ability (BIA) portion of the well-established Woodcock-Johnson Tests of Cognitive Ability (Woodcock, McGrew, & Mather, 2001). The Woodcock-Johnson (W-J) measures the cognitive ability of persons from kindergarten through adulthood. The BIA is the recommended portion of the W-J battery for research rather than diagnostic purposes, and includes cognitive tests of verbal comprehension, concept formation, and visual matching.

The test of verbal comprehension included sections on naming pictured objects (ranging in difficulty from a picture of a “cat” to a picture of a “spire”); providing synonyms and antonyms (“Tell me another word for ‘yard,’” or “Tell me the opposite of ‘sit’”); and completing analogies (“Pencil is to lead, as pen is to…”). Children were given an indefinite amount of time to answer each question. The questions increased in difficulty as the exam proceeded and children continued until they incorrectly answered three questions in a row. If a child chose to “pass” on a certain question, that question was counted as an incorrect answer.

The test of concept formation involved identifying and stating what was different about drawings that were inside a box from those that were outside a box. For example, a child may be shown a picture of a triangle on the left side of the page and
another triangle inside a box on the right side of the page. Children must identify that the drawing inside the box is different because is small and green, rather than large and yellow. Children were given one minute to ponder each question and then were prompted by the research assistant. The questions increased in difficulty as the exam progressed and children continued until they incorrectly answered three questions in a row.

The test of visual matching included a task where children matched two identical numbers in a row. The test increased in difficulty as children proceeded down the columns. For example, line one may contain the sequence, “2 6 7 2 9” whereas line 45 may contain the sequence, “513 315 153 315 531.” Children were instructed to complete as many lines as possible in three minutes. The three separate sections were computed into a single Standard Score (SS) based upon the mean score of all three tests. The median reliability coefficient for the BIA is .95, with a range of .94 to .98 across ages (McGrew & Woodcock, 2001).

Family Demographic Variables

Three family demographic variables were controlled for in this study. The data presented some complexities for the race variable because there were more than two races represented for each type of family structure. However, by far most of the participants in each family structure were either white or African American. For intact families, 67 mothers reported being white and 45 mothers reported being African American. For single parent families, 63 mothers reported being African American and
17 mothers reported being white. Therefore, the following decisions were made concerning the groupings for this variable.

The focus of this study was on family stress and was not focused on racial differences in test scores. Analyses of the data indicated that for both family structures white children's total BIA scores were significantly higher than the scores of African American children. For intact families, white children scored 109.37 whereas African American children scored 100.84. For single parent families white children scored 104.76 whereas African American children scored 97.29. The BIA scores for each child from races other than white or African American were then assessed. If the children's scores from other races were similar to those of African American children, they were combined with that group. If the children's scores from other races were similar to that of white children, they were combined with that group. This was done to help maximize the strength of the association between race and the dependent variable. Combining the variables in some other manner could have led to an inflation of the regression coefficients of the independent variables of interest in this study (Gujarati, 1995).

The following groupings emerged for the purposes of dummy coding the race variable. For intact families, "other" (n = 4) was combined with white because their mean BIA total score was 109.00. Hispanic (n = 4) was combined with African American because their mean BIA total score was 98.00. This produced the dummy coded variable 0 = African American + Hispanic, 1 = white + other.
For single mother families, all races other than white were combined with African American scores. Two mothers reported their race as "other" (mean BIA total score = 100.00), one mother was Hispanic (BIA total score = 94.00), one mother was American Indian (BIA total score = 94.00), and one mother's race was missing (BIA total score = 92). The dummy variable was coded as 0 = African American + all other races, 1 = white.

Mothers’ education was measured as highest level of school completed in one of eight possible categories: (1) Less than 7th grade, (2) 7th or 8th grade, (3) 9th grade, (4) 10th or 11th grade, (5) high school, (6) some college or trade or technical school, (7) college degree, and (8) graduate degree. The family’s income was assessed as the family’s total yearly income (before taxes and other deductions) for 2000, including wages and salaries, interest and dividends, and any other monies received by members of the household. Respondents could choose one of eight categories: (1) less than $5,000, (2) $5,000 to $9,999, (3) $10,000 to $19,999, (4) $20,000 to $39,999, (5) $40,000 to $59,999, (6) $60,000 to $79,999, (7) $80,000 to $99,999, and (8) $100,000 and above.

Data Analysis

The Statistical Package for Social Sciences (SPSS) was utilized in all analyses of the data in this study. The data were analyzed separately for intact families and single mother families. The relationship among daily hassles, family resources, and children's cognitive ability was assessed for each family structure.
Descriptive statistics were calculated for all variables and correlational analyses were conducted to examine bi-variate relationships among the variables. Multiple regression analyses were used to examine the relationships among the independent variables and the dependent variables.

Four regression models were utilized for each family structure. In each model, the independent variables were income, race, mother's education, daily hassles, hardiness, adaptability, and cohesion. The dependent variables examined were children's BIA total score, verbal ability score, concept formation score, and visual matching score. These analyses allowed for the testing of each hypothesis for each family structure.

For all regression models reported in the study, the adjusted $R^2$ is reported. The adjusted $R^2$ is an appropriate statistic for studies that have smaller sample sizes. In this study there are 85 single mother families and 120 intact families. The $R^2$ statistic is often inflated for smaller samples. The adjusted $R^2$ accounts for the size of the sample and the number of independent variables in the regression model. Thus, it provides a more conservative estimate of the amount of variance in the dependent variable explained by the independent variables (Agresti & Finlay, 1997).
RESULTS

The purpose of this study was to explore the relationships among families’ daily hassles, families’ resources (hardiness, adaptability, and cohesion), and children’s cognitive ability. Specific objectives included: (a) examine if living in a family environment characterized by more frequent and more negative daily hassles is related to children’s cognitive ability, (b) examine if family resources, specifically family hardiness, family adaptability, and family cohesion are related to children’s cognitive ability, and (c) examine if the relationship of daily hassles and family resources to children’s cognitive ability are similar or different in first marriage families as compared with single mother families.

Given the purpose and objectives of this study, the following hypotheses were developed for this study for both intact families and single parent families. One, family daily hassles are negatively related to children’s cognitive ability. Two, family hardiness is positively related to children’s cognitive ability. Three, family cohesion is positively related to children’s cognitive ability. Four, family adaptability is related to children’s cognitive ability.

Descriptive Statistics

Daily Hassles

Family Daily Hassles Inventory (FDHI; Garrison, et al., 1998). For both intact and single parent families, mothers’ daily hassles scores as measured by the FDHI were normally distributed on both the time and energy dimension and the negative influence dimension. The total hassles scores were also normally distributed. Scores for mothers
from intact families on the time and energy dimension of the hassles inventory ranged from 47 to 105 (M = 73.8, SD = 13.1). Scores on the negative influence dimension of the hassles inventory ranged from 20 to 106 (M = 45.0, SD = 20.6). Mothers’ total hassles scores ranged from 80 to 210 (M = 118.9, SD = 26.4).

Single mothers’ scores on the time and energy dimension of the hassles inventory ranged from 39 to 107 (M = 68.2, SD = 14.9). Scores on the negative influence dimension of the hassles inventory ranged from 10 to 99 (M = 49.5, SD = 23.5). Mothers’ total hassles scores ranged from 73 to 183 (M = 117.7, SD = 28.5).

An examination of the individual items from the total scores on the hassles measure indicated that “relationship with children” and “family financial matters” received the highest scores from mothers in both intact and single parent families. “Household chores” and “childcare or school related matters” were both in the top five for each family structure as well. “Relationship with brothers/sisters” was scored in the top five by mothers in single parent families; whereas, “work duties” scored in the top five for mothers in intact families. The only individual items that were substantively different were “relationship with spouse” (intact M = 5.85, single M = 2.74) and “relationship with in-laws” (intact M = 5.12, single M = 2.79). Only “pet care” received lower scores from single mothers than these two items. Given the nature of these different family structures this finding is not surprising. Means and standard deviations for each item in the FDHI are presented in Tables 1 to 3.
Table 1. Descriptive Statistics for Items in FDHI (Negative Influence)

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact</th>
<th></th>
<th>Single Mother</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1. Household chores</td>
<td>2.53</td>
<td>1.19</td>
<td>2.75</td>
<td>1.45</td>
</tr>
<tr>
<td>2. Meal preparation</td>
<td>2.09</td>
<td>1.23</td>
<td>2.56</td>
<td>1.56</td>
</tr>
<tr>
<td>3. Errands</td>
<td>2.10</td>
<td>1.04</td>
<td>2.44</td>
<td>1.26</td>
</tr>
<tr>
<td>4. Home repairs</td>
<td>2.03</td>
<td>1.11</td>
<td>1.98</td>
<td>1.41</td>
</tr>
<tr>
<td>5. Yard work</td>
<td>1.85</td>
<td>1.19</td>
<td>1.73</td>
<td>1.43</td>
</tr>
<tr>
<td>6. Housing</td>
<td>1.82</td>
<td>1.29</td>
<td>1.95</td>
<td>1.46</td>
</tr>
<tr>
<td>7. Car care</td>
<td>1.93</td>
<td>1.11</td>
<td>2.07</td>
<td>1.40</td>
</tr>
<tr>
<td>8. Transportation and traffic</td>
<td>2.27</td>
<td>1.26</td>
<td>2.43</td>
<td>1.55</td>
</tr>
<tr>
<td>9. Family financial matters</td>
<td>2.80</td>
<td>1.19</td>
<td>3.03</td>
<td>1.38</td>
</tr>
<tr>
<td>10. Household paperwork</td>
<td>2.08</td>
<td>1.04</td>
<td>2.24</td>
<td>1.30</td>
</tr>
<tr>
<td>11. Child care or school related matters</td>
<td>2.24</td>
<td>1.39</td>
<td>2.60</td>
<td>1.58</td>
</tr>
<tr>
<td>12. Pet care</td>
<td>1.48</td>
<td>1.28</td>
<td>0.96</td>
<td>1.31</td>
</tr>
<tr>
<td>13. Work duties</td>
<td>2.44</td>
<td>1.33</td>
<td>2.40</td>
<td>1.51</td>
</tr>
<tr>
<td>14. Use of leisure time</td>
<td>1.84</td>
<td>1.07</td>
<td>2.31</td>
<td>1.26</td>
</tr>
<tr>
<td>15. Community and church involvement</td>
<td>1.60</td>
<td>1.08</td>
<td>2.20</td>
<td>1.57</td>
</tr>
<tr>
<td>16. Relationship with spouse</td>
<td>1.93</td>
<td>1.51</td>
<td>1.22</td>
<td>1.65</td>
</tr>
<tr>
<td>17. Relationship with children</td>
<td>1.95</td>
<td>1.62</td>
<td>2.72</td>
<td>1.79</td>
</tr>
<tr>
<td>18. Relationship with parents</td>
<td>1.73</td>
<td>1.41</td>
<td>2.24</td>
<td>1.79</td>
</tr>
<tr>
<td>19. Relationship with in-laws</td>
<td>1.83</td>
<td>1.31</td>
<td>1.25</td>
<td>1.46</td>
</tr>
<tr>
<td>20. Relationship with brothers/sisters</td>
<td>1.81</td>
<td>1.35</td>
<td>2.45</td>
<td>1.68</td>
</tr>
<tr>
<td>21. Relationship with friends</td>
<td>1.62</td>
<td>1.13</td>
<td>2.26</td>
<td>1.34</td>
</tr>
<tr>
<td>22. Relationship with neighbors</td>
<td>1.48</td>
<td>1.02</td>
<td>1.89</td>
<td>1.29</td>
</tr>
<tr>
<td>23. Relationships at work</td>
<td>1.71</td>
<td>1.21</td>
<td>1.94</td>
<td>1.41</td>
</tr>
</tbody>
</table>

Table 2. Descriptive Statistics for Items in FDHI (Time and Energy)

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact</th>
<th></th>
<th>Single Mother</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1. Household chores</td>
<td>3.50</td>
<td>0.89</td>
<td>3.62</td>
<td>1.06</td>
</tr>
<tr>
<td>2. Meal preparation</td>
<td>3.28</td>
<td>0.85</td>
<td>3.39</td>
<td>1.04</td>
</tr>
<tr>
<td>3. Errands</td>
<td>3.22</td>
<td>0.88</td>
<td>3.25</td>
<td>1.23</td>
</tr>
<tr>
<td>4. Home repairs</td>
<td>2.68</td>
<td>1.15</td>
<td>2.18</td>
<td>1.31</td>
</tr>
<tr>
<td>5. Yard work</td>
<td>2.72</td>
<td>1.19</td>
<td>2.22</td>
<td>1.56</td>
</tr>
<tr>
<td>6. Housing</td>
<td>3.00</td>
<td>1.37</td>
<td>3.14</td>
<td>1.49</td>
</tr>
</tbody>
</table>
(table continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact M</th>
<th>Intact SD</th>
<th>Single Mother M</th>
<th>Single Mother SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Car care</td>
<td>2.62</td>
<td>0.93</td>
<td>2.60</td>
<td>1.38</td>
</tr>
<tr>
<td>8. Transportation and traffic</td>
<td>3.19</td>
<td>1.21</td>
<td>3.01</td>
<td>1.62</td>
</tr>
<tr>
<td>9. Family financial matters</td>
<td>3.26</td>
<td>1.05</td>
<td>3.41</td>
<td>1.41</td>
</tr>
<tr>
<td>10. Household paperwork</td>
<td>2.95</td>
<td>1.02</td>
<td>2.89</td>
<td>1.41</td>
</tr>
<tr>
<td>11. Child care or school related matters</td>
<td>3.75</td>
<td>1.06</td>
<td>3.79</td>
<td>1.37</td>
</tr>
<tr>
<td>12. Pet care</td>
<td>2.26</td>
<td>1.59</td>
<td>1.34</td>
<td>1.57</td>
</tr>
<tr>
<td>13. Work duties</td>
<td>3.57</td>
<td>1.04</td>
<td>3.33</td>
<td>1.40</td>
</tr>
<tr>
<td>14. Use of leisure time</td>
<td>3.34</td>
<td>0.91</td>
<td>3.29</td>
<td>1.03</td>
</tr>
<tr>
<td>15. Community and church involvement</td>
<td>3.38</td>
<td>1.16</td>
<td>3.29</td>
<td>1.43</td>
</tr>
<tr>
<td>16. Relationship with spouse</td>
<td>3.92</td>
<td>0.91</td>
<td>1.52</td>
<td>2.07</td>
</tr>
<tr>
<td>17. Relationship with children</td>
<td>4.42</td>
<td>0.73</td>
<td>4.64</td>
<td>0.69</td>
</tr>
<tr>
<td>18. Relationship with parents</td>
<td>3.56</td>
<td>1.37</td>
<td>3.62</td>
<td>1.72</td>
</tr>
<tr>
<td>19. Relationship with in-laws</td>
<td>3.28</td>
<td>1.17</td>
<td>1.54</td>
<td>1.74</td>
</tr>
<tr>
<td>20. Relationship with brothers/sisters</td>
<td>3.49</td>
<td>1.13</td>
<td>3.55</td>
<td>1.41</td>
</tr>
<tr>
<td>21. Relationship with friends</td>
<td>3.23</td>
<td>0.94</td>
<td>3.40</td>
<td>0.95</td>
</tr>
<tr>
<td>22. Relationship with neighbors</td>
<td>2.59</td>
<td>1.07</td>
<td>2.52</td>
<td>1.17</td>
</tr>
<tr>
<td>23. Relationships at work</td>
<td>2.91</td>
<td>1.29</td>
<td>2.90</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Table 3. Descriptive Statistics for Items in FDHI (Total Hassles Score)

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact M</th>
<th>Intact SD</th>
<th>Single Mother M</th>
<th>Single Mother SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Household chores</td>
<td>6.05</td>
<td>1.64</td>
<td>6.38</td>
<td>1.88</td>
</tr>
<tr>
<td>2. Meal preparation</td>
<td>5.38</td>
<td>1.61</td>
<td>5.94</td>
<td>1.97</td>
</tr>
<tr>
<td>3. Errands</td>
<td>5.32</td>
<td>1.52</td>
<td>5.68</td>
<td>1.69</td>
</tr>
<tr>
<td>4. Home repairs</td>
<td>4.71</td>
<td>1.87</td>
<td>4.18</td>
<td>2.11</td>
</tr>
<tr>
<td>5. Yard work</td>
<td>4.57</td>
<td>2.06</td>
<td>3.95</td>
<td>2.51</td>
</tr>
<tr>
<td>6. Housing</td>
<td>4.81</td>
<td>2.11</td>
<td>5.11</td>
<td>2.26</td>
</tr>
<tr>
<td>7. Car care</td>
<td>4.55</td>
<td>1.68</td>
<td>4.67</td>
<td>2.11</td>
</tr>
<tr>
<td>8. Transportation and traffic</td>
<td>5.46</td>
<td>2.05</td>
<td>5.44</td>
<td>2.63</td>
</tr>
<tr>
<td>9. Family financial matters</td>
<td>6.06</td>
<td>1.80</td>
<td>6.44</td>
<td>2.11</td>
</tr>
<tr>
<td>10. Household paperwork</td>
<td>5.03</td>
<td>1.62</td>
<td>5.11</td>
<td>2.08</td>
</tr>
<tr>
<td>11. Child care or school related matters</td>
<td>5.99</td>
<td>1.90</td>
<td>6.39</td>
<td>2.09</td>
</tr>
<tr>
<td>12. Pet care</td>
<td>3.74</td>
<td>2.55</td>
<td>2.31</td>
<td>2.61</td>
</tr>
<tr>
<td>13. Work duties</td>
<td>6.01</td>
<td>2.04</td>
<td>5.76</td>
<td>2.38</td>
</tr>
</tbody>
</table>
Family Resources

Family Hardiness Index (FHI; McCubbin, McCubbin, & Thompson, 1991).

Mothers’ scores as measured by the FHI were normally distributed. Scores on the hardiness index ranged from 40 to 79 (M = 65.8, SD = 6.8) for mothers in intact families. Scores on the hardiness index for single parents ranged from 38 to 79 (M = 66.0, SD = 7.9). Means and standard deviations for each item in the FHI are presented in Table 4.

Table 4. Descriptive Statistics for Items in FHI

<table>
<thead>
<tr>
<th>Item</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>14. Use of leisure time</td>
<td>5.18</td>
<td>1.42</td>
</tr>
<tr>
<td>15. Community and church involvement</td>
<td>4.96</td>
<td>1.59</td>
</tr>
<tr>
<td>16. Relationship with spouse</td>
<td>5.86</td>
<td>1.75</td>
</tr>
<tr>
<td>17. Relationship with children</td>
<td>6.37</td>
<td>1.91</td>
</tr>
<tr>
<td>18. Relationship with parents</td>
<td>5.30</td>
<td>2.27</td>
</tr>
<tr>
<td>19. Relationship with in-laws</td>
<td>5.12</td>
<td>1.81</td>
</tr>
<tr>
<td>20. Relationship with brothers/sisters</td>
<td>5.30</td>
<td>2.02</td>
</tr>
<tr>
<td>21. Relationship with friends</td>
<td>4.84</td>
<td>1.67</td>
</tr>
<tr>
<td>22. Relationship with neighbors</td>
<td>4.07</td>
<td>1.78</td>
</tr>
<tr>
<td>23. Relationships at work</td>
<td>4.62</td>
<td>2.05</td>
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(table continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact M</th>
<th>SD</th>
<th>Single Mother M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. In the long run, the bad things that happen to us are balanced by the good things that happen</td>
<td>2.95</td>
<td>1.06</td>
<td>2.94</td>
<td>1.02</td>
</tr>
<tr>
<td>5. We have a sense of being strong even when we face big problems</td>
<td>3.50</td>
<td>0.58</td>
<td>3.62</td>
<td>0.56</td>
</tr>
<tr>
<td>6. Many times I feel I can trust that even in difficult times things will work out</td>
<td>3.65</td>
<td>0.53</td>
<td>3.62</td>
<td>0.51</td>
</tr>
<tr>
<td>7. While we don’t always agree, we can count on each other to stand by us in times of need</td>
<td>3.67</td>
<td>0.61</td>
<td>3.66</td>
<td>0.55</td>
</tr>
<tr>
<td>8. We do not feel we can survive if another problem hits us</td>
<td>3.46</td>
<td>0.99</td>
<td>3.39</td>
<td>0.99</td>
</tr>
<tr>
<td>9. We believe that things will work out for the better if we work together as a family</td>
<td>3.75</td>
<td>0.46</td>
<td>3.72</td>
<td>0.65</td>
</tr>
<tr>
<td>10. Life seems dull and meaningless</td>
<td>3.66</td>
<td>0.83</td>
<td>3.36</td>
<td>1.15</td>
</tr>
<tr>
<td>11. We strive together to help each other no matter what</td>
<td>3.53</td>
<td>0.65</td>
<td>3.52</td>
<td>0.72</td>
</tr>
<tr>
<td>12. When our family plans activities, we try new and exciting things</td>
<td>2.95</td>
<td>0.78</td>
<td>3.12</td>
<td>0.92</td>
</tr>
<tr>
<td>13. We listen to each others’ problems, hurts, and fears</td>
<td>3.58</td>
<td>0.63</td>
<td>3.49</td>
<td>0.74</td>
</tr>
<tr>
<td>14. We tend to do the same things over and over . . . it’s boring</td>
<td>2.95</td>
<td>0.85</td>
<td>3.01</td>
<td>0.99</td>
</tr>
<tr>
<td>15. We seem to encourage each other to try new things and new experiences</td>
<td>3.11</td>
<td>0.73</td>
<td>3.31</td>
<td>0.72</td>
</tr>
<tr>
<td>16. It is better to stay home than go out and do things with others</td>
<td>2.96</td>
<td>0.93</td>
<td>3.09</td>
<td>1.03</td>
</tr>
<tr>
<td>17. Being active and learning new things are encourages</td>
<td>3.52</td>
<td>0.66</td>
<td>3.67</td>
<td>0.61</td>
</tr>
<tr>
<td>18. We work together to solve problems</td>
<td>3.45</td>
<td>0.74</td>
<td>3.46</td>
<td>0.68</td>
</tr>
<tr>
<td>19. Most of the unhappy things that happen are due to bad luck</td>
<td>3.27</td>
<td>0.93</td>
<td>3.25</td>
<td>1.09</td>
</tr>
<tr>
<td>20. We realize our lives are controlled by accidents and luck</td>
<td>3.47</td>
<td>1.05</td>
<td>3.39</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Family Adaptability and Cohesion Evaluation Scale-II (FACES-II) (Olson, Porter, & Bell, 1982). Mothers’ scores for both cohesion and adaptability were
normally distributed. For mothers in intact families, scores on the cohesion dimension ranged from 28 to 79 (M = 66.3, SD = 8.0). Mothers’ scores on the adaptability dimension ranged from 35 to 61 (M = 47.9, SD = 5.6).

For mothers in single parent families, scores on the cohesion dimension ranged from 40 to 80 (M = 63.9, SD = 8.6). Scores on the adaptability dimension ranged from 31 to 61 (M = 47.7, SD = 6.0). Means and standard deviations for each item in FACES are presented in Table 5.

Table 5. Descriptive Statistics for Items in FACES

<table>
<thead>
<tr>
<th>Item</th>
<th>Intact M</th>
<th>Intact SD</th>
<th>Single Moms M</th>
<th>Single Moms SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family members are supportive of each other during difficult times</td>
<td>4.64</td>
<td>0.71</td>
<td>4.46</td>
<td>0.85</td>
</tr>
<tr>
<td>2. In our family, it is easy for everyone to express his/her opinion</td>
<td>4.16</td>
<td>0.79</td>
<td>3.91</td>
<td>0.98</td>
</tr>
<tr>
<td>3. It is easier to discuss problems with people outside the family than with other family members</td>
<td>2.54</td>
<td>0.99</td>
<td>2.85</td>
<td>1.09</td>
</tr>
<tr>
<td>4. Each family member has input in major family decisions</td>
<td>3.81</td>
<td>1.02</td>
<td>3.73</td>
<td>1.03</td>
</tr>
<tr>
<td>5. Our family gathers together in the same room</td>
<td>4.16</td>
<td>0.93</td>
<td>4.31</td>
<td>0.89</td>
</tr>
<tr>
<td>6. Children have a say in their discipline</td>
<td>2.48</td>
<td>1.16</td>
<td>2.40</td>
<td>1.16</td>
</tr>
<tr>
<td>7. Our family does things together</td>
<td>4.31</td>
<td>0.79</td>
<td>4.38</td>
<td>0.83</td>
</tr>
<tr>
<td>8. Family members discuss problems and feel good about the solutions</td>
<td>3.62</td>
<td>0.86</td>
<td>3.59</td>
<td>0.95</td>
</tr>
<tr>
<td>9. In our family, everyone goes his/her own way</td>
<td>2.17</td>
<td>0.85</td>
<td>2.13</td>
<td>1.03</td>
</tr>
<tr>
<td>10. We shift household responsibilities from person to person</td>
<td>2.78</td>
<td>1.14</td>
<td>3.05</td>
<td>1.36</td>
</tr>
<tr>
<td>11. Family members know each other’s close friends</td>
<td>4.54</td>
<td>0.92</td>
<td>4.40</td>
<td>0.95</td>
</tr>
<tr>
<td>12. It is hard to know what the rules are in our family</td>
<td>1.67</td>
<td>1.01</td>
<td>1.95</td>
<td>1.30</td>
</tr>
<tr>
<td>13. Family members consult other family members on their decisions</td>
<td>3.58</td>
<td>1.02</td>
<td>3.33</td>
<td>1.19</td>
</tr>
<tr>
<td>14. Family members say what they want</td>
<td>3.81</td>
<td>1.06</td>
<td>3.65</td>
<td>1.15</td>
</tr>
<tr>
<td>15. We have difficulty thinking of things to do as a family</td>
<td>1.79</td>
<td>0.84</td>
<td>2.13</td>
<td>1.12</td>
</tr>
<tr>
<td>Item</td>
<td>Intact M</td>
<td>Intact SD</td>
<td>Single Moms M</td>
<td>Single Moms SD</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------</td>
<td>---------------</td>
<td>----------------</td>
</tr>
<tr>
<td>16. In solving problems, the children’s suggestions are followed</td>
<td>2.72</td>
<td>0.88</td>
<td>2.75</td>
<td>0.97</td>
</tr>
<tr>
<td>17. Family members feel very close to each other</td>
<td>4.64</td>
<td>0.71</td>
<td>4.41</td>
<td>0.94</td>
</tr>
<tr>
<td>18. Discipline is fair in our family</td>
<td>4.59</td>
<td>0.59</td>
<td>4.48</td>
<td>0.81</td>
</tr>
<tr>
<td>19. Family members feel closer to people outside the family than to</td>
<td>1.59</td>
<td>0.85</td>
<td>2.20</td>
<td>1.31</td>
</tr>
<tr>
<td>other family members</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Our family tries new ways of dealing with problems</td>
<td>3.14</td>
<td>0.87</td>
<td>3.39</td>
<td>1.11</td>
</tr>
<tr>
<td>21. Family members go along with what the family decides to do</td>
<td>4.28</td>
<td>0.82</td>
<td>4.00</td>
<td>0.83</td>
</tr>
<tr>
<td>22. In our family, everyone shares responsibilities</td>
<td>3.91</td>
<td>0.98</td>
<td>3.91</td>
<td>1.08</td>
</tr>
<tr>
<td>23. Family members like to spend their free time with each other</td>
<td>3.85</td>
<td>0.88</td>
<td>3.84</td>
<td>0.92</td>
</tr>
<tr>
<td>24. It is difficult to get a rule changed in our family</td>
<td>2.49</td>
<td>0.99</td>
<td>2.54</td>
<td>1.06</td>
</tr>
<tr>
<td>25. Family members avoid each other at home</td>
<td>1.43</td>
<td>0.69</td>
<td>1.64</td>
<td>0.99</td>
</tr>
<tr>
<td>26. When problems arise, we compromise</td>
<td>3.60</td>
<td>0.88</td>
<td>3.54</td>
<td>1.10</td>
</tr>
<tr>
<td>27. We approve of each other’s friends</td>
<td>3.97</td>
<td>1.00</td>
<td>3.62</td>
<td>1.01</td>
</tr>
<tr>
<td>28. Family members are afraid to say what is on their minds</td>
<td>1.81</td>
<td>0.99</td>
<td>1.95</td>
<td>1.00</td>
</tr>
<tr>
<td>29. Family members pair up rather than do things as a total family</td>
<td>1.95</td>
<td>1.05</td>
<td>1.69</td>
<td>0.98</td>
</tr>
<tr>
<td>30. Family members share interests and hobbies with each other</td>
<td>3.99</td>
<td>0.94</td>
<td>3.81</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Cognitive Ability

Woodcock-Johnson Tests of Cognitive Ability (Woodcock, McGrew, & Mather, 2001). Children’s cognitive ability scores were determined using the Brief Intellectual Ability portion of the W-J. Total scores for children living in intact families ranged from 71 to 148 (M = 105.8, SD = 12.8). Children’s scores on the test of verbal ability ranged from 67 to 157 (M = 104.0, SD = 13.6). Scores on the concept formation test ranged from 64 to 139 (M = 102.3, SD = 13.4) and scores on the visual matching test
ranged from 69 to 152 (M = 106.0, SD = 13.2). Means and standard deviations for intact families' scores on the tests of cognitive ability as well as means and standard deviations for each independent variable in the study are presented in Table 6.

Table 6. Descriptive Statistics for BIA Scores and Independent Variables (Intact Families)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total</td>
<td>105.78</td>
<td>12.84</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>104.01</td>
<td>13.60</td>
</tr>
<tr>
<td>Concept Formation</td>
<td>102.28</td>
<td>13.42</td>
</tr>
<tr>
<td>Visual Matching</td>
<td>106.01</td>
<td>13.17</td>
</tr>
<tr>
<td>Cohesion</td>
<td>66.23</td>
<td>8.01</td>
</tr>
<tr>
<td>Adaptability</td>
<td>47.88</td>
<td>5.59</td>
</tr>
<tr>
<td>Hardiness</td>
<td>65.84</td>
<td>6.76</td>
</tr>
<tr>
<td>Hassles</td>
<td>118.88</td>
<td>26.38</td>
</tr>
<tr>
<td>Mothers’ Education</td>
<td>6.05</td>
<td>1.04</td>
</tr>
<tr>
<td>Household Income</td>
<td>5.00</td>
<td>1.50</td>
</tr>
</tbody>
</table>

Total scores for children living in single mother households ranged from 66 to 131 (M=98.7, SD=11.7). Children’s scores on the test of verbal ability ranged from 59 to 124 (M=94.8, SD=12.6). Children’s scores on the concept formation test ranged from 59 to 121 (M=95.7, SD=11.5) and scores on the visual matching test ranged from 76 to 141 (M=103.8, SD=13.9). Means and standard deviations for single parent families' scores on the tests of cognitive ability as well as means and standard deviations for each predictor variable in the study are presented in Table 7.
Table 7. Descriptive Statistics for BIA Scores and Independent Variables (Single Mother Families)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total</td>
<td>98.71</td>
<td>11.73</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>94.79</td>
<td>12.57</td>
</tr>
<tr>
<td>Concept Formation</td>
<td>95.72</td>
<td>11.49</td>
</tr>
<tr>
<td>Visual Matching</td>
<td>103.75</td>
<td>13.89</td>
</tr>
<tr>
<td>Cohesion</td>
<td>63.92</td>
<td>8.60</td>
</tr>
<tr>
<td>Adaptability</td>
<td>47.72</td>
<td>5.98</td>
</tr>
<tr>
<td>Hardiness</td>
<td>65.99</td>
<td>7.86</td>
</tr>
<tr>
<td>Hassles</td>
<td>117.71</td>
<td>28.51</td>
</tr>
<tr>
<td>Mothers’ Education</td>
<td>5.64</td>
<td>1.16</td>
</tr>
<tr>
<td>Household Income</td>
<td>3.07</td>
<td>0.90</td>
</tr>
<tr>
<td>Race</td>
<td>N = 17 (White) N = 68 (African American &amp; other races)</td>
<td></td>
</tr>
</tbody>
</table>

Correlational and Regression Analyses

Results from correlational and regression analyses of the data are presented in the section that follows. The results from the correlational analysis are followed by the results from four regression analyses in which BIA total score, verbal ability score, concept formation score, and visual matching score are each the dependent variable in the model. VIF and tolerance scores indicated that multicollinearity was not an issue in any of the regression analyses.

Correlational Data

Intact Families. Several significant relationships between the independent variables and dependent variables of focus in this study were identified through correlational analysis. All three socio-demographic variables were significantly correlated with children’s total BIA score. Specifically, mothers’ education ($r = .22$), income ($r = .26$), and race ($r = .34$) were associated with children’s BIA total score.
Family cohesion \((r = .25)\) was positively related to BIA total score while daily hassles \((r = -.32)\) were negatively associated with BIA total score.

Mothers’ education \((r = .23)\), income \((r = .30)\), and race \((r = .35)\) were also significantly correlated with children’s verbal ability scores. Family cohesion \((r = .20)\) was positively correlated with children’s verbal ability score while daily hassles \((r = -.41)\) were negatively associated with verbal ability scores.

Mothers’ education \((r = .22)\), income \((r = .28)\), and race \((r = .45)\) were significantly associated with children’s concept formation scores. Family hardiness \((r = -.19)\) and daily hassles \((r = -.34)\) were negatively correlated with children’s concept formation scores.

None of the socio-demographic variables were significantly correlated with children’s visual matching scores. Family cohesion \((r = .23)\) and family hardiness \((r = .17)\) were positively associated with children’s concept formation scores. The correlations among the variables explored in this study for intact families are presented in Table 8.

Table 8. Intercorrelations for BIA Scores and Independent Variables (Intact Families)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total</td>
<td>.22*</td>
<td>.26*</td>
<td>.34*</td>
<td>.25*</td>
<td>.02</td>
<td>.02</td>
<td>-.32*</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>.23*</td>
<td>.30*</td>
<td>.35*</td>
<td>.20*</td>
<td>-.04</td>
<td>.05</td>
<td>-.41*</td>
</tr>
<tr>
<td>Concept Formation</td>
<td>.22*</td>
<td>.28*</td>
<td>.45*</td>
<td>.13</td>
<td>-.10</td>
<td>-.19*</td>
<td>-.34*</td>
</tr>
<tr>
<td>Visual Matching</td>
<td>.07</td>
<td>.04</td>
<td>.04</td>
<td>.23*</td>
<td>.11</td>
<td>.17*</td>
<td>-.08</td>
</tr>
</tbody>
</table>

Independent Variable

| 1. Mother’s Education | -    | .42* | .08  | .39* | .28* | .11  | -.18* |

62
(table continued)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.33*</td>
<td>.25*</td>
<td>.14</td>
<td>-.05</td>
<td>-.38*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.11</td>
<td>.05</td>
<td>-.09</td>
<td>-.37*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.47*</td>
<td>.37*</td>
<td>-.05</td>
<td></td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.23*</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Single Parent Families. Several significant relationships between the independent variables and dependent variables of focus for single parent families were identified through correlational analysis. All three socio-demographic variables were significantly correlated with children’s total BIA score. Specifically, mothers’ education (r = .21), income (r = .33), and race (r = .26) were associated with children’s BIA total score. Family cohesion (r = .28) and hardiness (r = .34) were positively related to BIA total score.

Mothers’ education (r = .20), income (r = .31), and race (r = .40) were also significantly correlated with children’s verbal ability scores. Hardiness (r = .28) was positively associated with verbal ability scores.

Income (r = .22), and race (r = .32) were significantly associated with children’s concept formation scores. Family cohesion (r = .19) and hardiness (r = .24) were positively associated with concept formation scores whereas daily hassles (r = -.21) were negatively correlated with children’s concept formation scores.
Mothers’ education (r = .21) and income (r = .26) were associated with children’s visual matching scores. Family cohesion (r = .25) and family hardiness (r = .27) were positively associated with children’s concept formation scores. The correlations among the variables explored in this study for single parent families are presented in Table 9.

Table 9. Intercorrelations for BIA Scores and Independent Variables (Single Mother Families)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total</td>
<td>.21*</td>
<td>.33*</td>
<td>.26*</td>
<td>.28*</td>
<td>.04</td>
<td>.34*</td>
<td>-.16</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>.20*</td>
<td>.31*</td>
<td>.40*</td>
<td>.16</td>
<td>-.14</td>
<td>.28*</td>
<td>-.17</td>
</tr>
<tr>
<td>Concept Formation</td>
<td>.11</td>
<td>.22*</td>
<td>.32*</td>
<td>.19*</td>
<td>.03</td>
<td>.24*</td>
<td>-.21*</td>
</tr>
<tr>
<td>Visual Matching</td>
<td>.21*</td>
<td>.26*</td>
<td>-.01</td>
<td>.25*</td>
<td>.11</td>
<td>.27*</td>
<td>-.02</td>
</tr>
</tbody>
</table>

Independent Variable

1. Mother’s Education    - .43* -.04 .32* -.09 .40* -.17
2. Household Income      - .40* .32* -.10 .31* -.16
3. Race                  - .16 .03 .06 -.17
4. Cohesion              - .48* .64* -.13
5. Adaptability          - .46* .15
6. Hardiness             - -.06
7. Hassles               -

*p < .05

Regression Analyses for Intact Families

BIA Total Score. For the first regression equation, children’s total score on the BIA was the dependent variable. The independent variables accounted for 17% (adjusted $R^2$) of the variance in children’s total BIA score and the model was significant.
(F = 4.55, p < .01). Race (β = .23, p < .01), cohesion (β = .24, p < .05), and hassles (β = -.18, p < .05) were all significantly related to BIA total score in the regression model.

Verbal Ability Score. For the second regression equation, children’s scores on the verbal ability test on the BIA was the dependent variable. The independent variables accounted for 22% (adjusted R²) of the variance in children’s verbal ability score and the model was significant (F = 5.82, p < .01). Race (β = .22, p < .01) and hassles (β = -.25, p < .01) were significantly related to verbal ability score in the regression model.

Concept Formation Score. For the third regression equation, children’s score on the concept formation test on the BIA was the dependent variable. The independent variables accounted for 29% (adjusted R²) of the variance in children’s concept formation score and the model was significant (F = 7.94, p < .01). Mothers’ education (β = .16, p < .05), race (β = .35, p < .01), cohesion (β = .20, p < .05), adaptability (β = -.19, p < .02), hardiness (β = -.21, p < .01), and hassles (β = -.16, p < .05) were significantly related to concept formation score in the regression model.

Visual Matching Score. For the fourth regression equation, children’s score on the visual matching test on the BIA was the dependent variable. The independent variables accounted for only 1% (adjusted R²) of the variance in children’s visual matching score. The model was not significant (F = 1.16, p > .05). Cohesion (β = .21, p < .05) was significantly related to visual matching score in the regression model.

Results from each of the regression models for intact families are presented in Table 10.
Table 10. Regression Analyses for Intact Families

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>B</th>
<th>SEB</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIA Total Score</strong></td>
<td>.17*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Education</td>
<td>1.24</td>
<td>1.22</td>
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</tr>
<tr>
<td>Household Income</td>
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<td>.88</td>
<td>.02</td>
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<tr>
<td>Race</td>
<td>5.97</td>
<td>2.43</td>
<td>.23*</td>
<td></td>
</tr>
<tr>
<td>Cohesion</td>
<td>.38</td>
<td>.17</td>
<td>.24*</td>
<td></td>
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<tr>
<td>Adaptability</td>
<td>-.26</td>
<td>.22</td>
<td>-.11</td>
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</tr>
<tr>
<td>Hardiness</td>
<td>-.07</td>
<td>.18</td>
<td>-.04</td>
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<tr>
<td>Hassles</td>
<td>-.09</td>
<td>.05</td>
<td>-.18*</td>
<td></td>
</tr>
<tr>
<td><strong>Verbal Ability</strong></td>
<td>.22*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Education</td>
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<td>1.25</td>
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<tr>
<td>Household Income</td>
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<td>.07</td>
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<td>Race</td>
<td>6.12</td>
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<tr>
<td>Cohesion</td>
<td>.27</td>
<td>.17</td>
<td>.16</td>
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<tr>
<td>Adaptability</td>
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<td>.23</td>
<td>-.14</td>
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<tr>
<td>Hardiness</td>
<td>.05</td>
<td>.18</td>
<td>-.03</td>
<td></td>
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<tr>
<td>Hassles</td>
<td>-.13</td>
<td>.05</td>
<td>-.25*</td>
<td></td>
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<tr>
<td><strong>Concept Formation</strong></td>
<td>.29*</td>
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<tr>
<td>Mother’s Education</td>
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<td>1.18</td>
<td>.16*</td>
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<tr>
<td>Household Income</td>
<td>.05</td>
<td>.85</td>
<td>.01</td>
<td></td>
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<td>Race</td>
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<td>2.35</td>
<td>.35*</td>
<td></td>
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<tr>
<td>Cohesion</td>
<td>.33</td>
<td>.16</td>
<td>.20*</td>
<td></td>
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<tr>
<td>Adaptability</td>
<td>-.45</td>
<td>.22</td>
<td>-.19*</td>
<td></td>
</tr>
<tr>
<td>Hardiness</td>
<td>-.42</td>
<td>.17</td>
<td>-.21*</td>
<td></td>
</tr>
<tr>
<td>Hassles</td>
<td>-.08</td>
<td>.05</td>
<td>-.16*</td>
<td></td>
</tr>
<tr>
<td><strong>Visual Matching</strong></td>
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<td></td>
<td></td>
<td></td>
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<td>Mother’s Education</td>
<td>-.32</td>
<td>1.37</td>
<td>-.03</td>
<td></td>
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<tr>
<td>Household Income</td>
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<td>.98</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>.23</td>
<td>2.73</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Cohesion</td>
<td>.34</td>
<td>.19</td>
<td>.21*</td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>.03</td>
<td>.25</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Hardiness</td>
<td>.17</td>
<td>.20</td>
<td>.09</td>
<td></td>
</tr>
</tbody>
</table>
Support for Hypotheses. Results from the linear regression analyses produced support for some of the hypotheses for intact families in this study. Hypothesis one stated that daily hassles are negatively related to children’s cognitive ability. The first three regression models provided support for this hypothesis. Daily hassles were not related to children’s cognitive ability in the model that had children’s visual matching scores as the dependent variable.

Hypothesis two stated that family hardiness is positively related to children’s cognitive ability. The results of the data analyses provided no support for this hypothesis. Family hardiness was related to children’s concept formation score. However, it was negatively, not positively, associated with the dependent variable.

Hypothesis three stated that family cohesion is positively related to children’s cognitive ability. This hypothesis was partially supported. Cohesion was positively associated with each dependent variable except verbal ability score. It should be noted that the association between cohesion and children's verbal ability almost reached the .05 level of significance (t = 1.57, p = .06). It should also be noted that while cohesion was associated with children’s visual matching scores, the regression model was not significant.
Hypothesis four stated that family adaptability is related to children’s cognitive ability. Analyses of the data provided minor support for this hypothesis. Family adaptability was negatively associated with children’s concept formation score. Family adaptability was not associated with any of the other dependent variables.

Regression Analyses for Single Parent Families

BIA Total Score. For the first regression equation, children’s total score on the BIA was the dependent variable. The independent variables accounted for 14% (adjusted $R^2$) of the variance in children’s total BIA score and the model was significant ($F = 2.99, p < .01$). Hardiness ($\beta = .31, p < .05$) was significantly related to BIA total score in the regression model.

Verbal Ability Score. For the second regression equation, children’s score on the verbal ability test on the BIA was the dependent variable. The independent variables accounted for 26% (adjusted $R^2$) of the variance in children’s verbal ability score and the model was significant ($F = 5.12, p < .01$). Race ($\beta = .40, p < .01$) adaptability ($\beta = -.32, p < .01$), and hardiness ($\beta = .40$) were significantly related to verbal ability score in the regression model.

Concept Formation Score. For the third regression equation, children’s score on the concept formation test on the BIA was the dependent variable. The independent variables accounted for 10% (adjusted $R^2$) of the variance in children’s concept formation score and the model was significant ($F = 2.33, p < .05$). Race ($\beta = .28, p < .01$) and hardiness ($\beta = .26, p < .01$) were significantly related to concept formation score in the regression model.
Visual Matching Score. For the fourth regression equation, children’s score on the visual matching test on the BIA was the dependent variable. The independent variables accounted for 5\% (adjusted $R^2$) of the variance in children’s visual matching score; however, the model was not significant ($F = 1.60, p > .05$). No variables were significantly related to visual matching scores in the regression model. Results from each of the regression models are presented in Table 11.

Table 11. Regression Analyses for Single Mother Families

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>B</th>
<th>SEB</th>
<th>$\beta$</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Education</td>
<td>.14*</td>
<td>0.43</td>
<td>1.65</td>
<td>.00</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td>1.20</td>
<td>1.34</td>
<td>.12</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>5.19</td>
<td>3.40</td>
<td>.18</td>
</tr>
<tr>
<td>Cohesion</td>
<td></td>
<td>.08</td>
<td>.20</td>
<td>.06</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>-.23</td>
<td>.26</td>
<td>-.12</td>
</tr>
<tr>
<td>Hardiness</td>
<td></td>
<td>.46</td>
<td>.22</td>
<td>.31*</td>
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<tr>
<td>Hassles</td>
<td></td>
<td>-.03</td>
<td>.04</td>
<td>-.06</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Education</td>
<td>.26*</td>
<td>0.52</td>
<td>1.65</td>
<td>.04</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td>-.26</td>
<td>1.33</td>
<td>-.02</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>12.42</td>
<td>3.40</td>
<td>.40*</td>
</tr>
<tr>
<td>Cohesion</td>
<td></td>
<td>-.02</td>
<td>.20</td>
<td>-.01</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>-.68</td>
<td>.26</td>
<td>-.32*</td>
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<tr>
<td>Hardiness</td>
<td></td>
<td>.64</td>
<td>.22</td>
<td>.40*</td>
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<tr>
<td>Hassles</td>
<td></td>
<td>-.01</td>
<td>.04</td>
<td>-.03</td>
</tr>
<tr>
<td>Concept Formation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Education</td>
<td>.10*</td>
<td>-.23</td>
<td>1.66</td>
<td>-.02</td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td>.09</td>
<td>1.34</td>
<td>.01</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>7.91</td>
<td>3.41</td>
<td>.28*</td>
</tr>
<tr>
<td>Cohesion</td>
<td></td>
<td>.00</td>
<td>.20</td>
<td>.00</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>-.15</td>
<td>.26</td>
<td>-.08</td>
</tr>
</tbody>
</table>
Support for Hypotheses. Results from the linear regression model produced support for some of the hypotheses for single parent families in this study. Hypothesis one stated that family daily hassles are negatively related to children’s cognitive ability. Analyses of the data provided no support for this hypothesis. Family daily hassles were not related to any of the dependent variables in the models for single parent families.

Hypothesis two stated that family hardiness is positively related to children’s cognitive ability. This hypothesis was supported in three of the regression models conducted for single mother families. Family hardiness was not related to children’s visual matching scores.

Hypothesis three stated that family cohesion is positively related to children’s cognitive ability. Results from the data analyses did not provide any support for this hypothesis. Family cohesion was not associated with any of the dependent variables.
Hypothesis four stated that family adaptability is related to children’s cognitive ability. This hypothesis was partially supported. Family adaptability was negatively associated with children’s verbal ability score. Family adaptability was not associated with any of the other dependent variables.

Summary

The following were objectives of this study: (a) examine if living in a family environment characterized by more frequent and more negative daily hassles is related to children’s cognitive ability, (b) examine if family resources, specifically family hardiness, family adaptability, and family cohesion are related to children’s cognitive ability, and (c) examine if the relationship of daily hassles and family resources to children’s cognitive ability are similar or different in first marriage families as compared with single mother families.

Analyses of the data indicated that living in an environment characterized by more frequent and more negative daily hassles was negatively related to children's cognitive ability for intact families. However, daily hassles were not related to children's cognitive ability for single mother families. Specifically, daily hassles were associated with children's total BIA score, children's verbal ability score, and children's concept formation score. Daily hassles were not associated with children's visual matching score. The strongest association between daily hassles and children's cognitive ability was with the verbal ability score. As indicated by the beta statistic, daily hassles were more strongly associated with children's verbal ability than any other variable in that model.
Analyses of the data provided mixed findings for the objective of examining if family resources, specifically family hardiness, family adaptability, and family cohesion are related to children’s cognitive ability. For intact families, family cohesion was positively associated with children's total BIA score, children's concept formation score, and visual matching score (however, the regression model was not significant). The relationship between cohesion and children's verbal ability score did not reach significance; however, the probability nearly reached the .05 level of significance. An examination of the beta statistic indicated that cohesion was more strongly associated with children's total BIA score than any other variable in the model (although, the difference between cohesion and race was only .01). The direction of the relationship indicates that being close as a family (as opposed to being separated or disengaged) is associated with higher cognitive ability scores for children. Cohesion was not related to any of the child outcome measures for single mother families.

Family hardiness was most strongly associated with cognitive ability outcomes for children living in single mother families. Hardiness was positively associated with children's total BIA score, verbal ability score, and concept formation score. Hardiness was not related to children's visual matching score. Hardiness was the only variable in the model that was significantly associated with children's total BIA score. The beta scores indicated that the strength of association between hardiness and verbal ability score and race and verbal ability score were virtually equal.

For intact families, the only outcome variable with which hardiness was associated was children's concept formation score. There was a negative relationship
between the variables, which ran counter to the direction that was stated in the hypothesis. It is unclear why hardiness was related only to concept formation for intact families and why the direction of the association was negative. This finding is perplexing in light of the findings for single mother families that the direction of the association was positive.

Family adaptability received minor support as a family resource that is relevant for children's cognitive ability. Adaptability was associated with only one outcome variable for each family structure. For intact families, adaptability was negatively related to children's concept formation score. For single parent families, adaptability was negatively associated with children's verbal ability score. It should be noted that while no other associations were significant, the direction of the association was negative for all other outcome variables for each family structure except the visual matching scores (both models). The direction of the relationships indicates that being more flexible to chaotic is associated with lower cognitive ability scores.

Analyses of the data indicated that the relationships among these variables differed by family structure. Regression analyses indicated that family daily hassles and family cohesion were important factors for first marriage families. However, family hardiness was an important factor for single parent families. Family adaptability was a factor for both family structures; however, it was only associated with one model for each family structure. These results provide support for the contention that stressors and resources that are of importance to outcomes in one type of family structure might not be salient for another type of family structure.
An Additional Note on Analyses of the Data

In analyzing the data, an unanticipated finding occurred. Although it was not within the stated objectives of this study, this finding should be noted because of its potential importance for future research in this area.

In this study, family daily hassles were found to be negatively associated with children’s BIA total score, verbal ability score, and concept formation score in intact families. Of the 120 mothers from intact families, 67 were white and 45 were African American. Eight mothers were of other races and were not included in this comparison. A comparison of means and standard deviations for the variables of interest in this study are presented in Table 12.

Table 12. Comparison of Descriptive Statistics for African American and White Mothers from Intact Families

<table>
<thead>
<tr>
<th>Variable</th>
<th>White M</th>
<th>White SD</th>
<th>African American M</th>
<th>African American SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIA Total</td>
<td>109.37</td>
<td>12.62</td>
<td>100.84</td>
<td>11.76</td>
</tr>
<tr>
<td>Verbal Ability</td>
<td>108.00</td>
<td>13.35</td>
<td>97.78</td>
<td>12.48</td>
</tr>
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<td>11.47</td>
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</tr>
<tr>
<td>Visual Matching</td>
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<td>13.73</td>
<td>106.20</td>
<td>11.84</td>
</tr>
<tr>
<td>Daily Hassles</td>
<td>110.85</td>
<td>16.69</td>
<td>130.78</td>
<td>33.87</td>
</tr>
<tr>
<td>Hardiness</td>
<td>65.07</td>
<td>6.35</td>
<td>66.84</td>
<td>7.27</td>
</tr>
<tr>
<td>Adaptability</td>
<td>48.18</td>
<td>5.85</td>
<td>47.51</td>
<td>5.55</td>
</tr>
<tr>
<td>Cohesion</td>
<td>66.78</td>
<td>8.23</td>
<td>65.07</td>
<td>7.55</td>
</tr>
<tr>
<td>Household Income</td>
<td>5.46</td>
<td>1.39</td>
<td>4.31</td>
<td>1.49</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>6.13</td>
<td>1.12</td>
<td>5.99</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Two substantive differences between white families and African American families are noteworthy. First, the difference in BIA scores (total, verbal, and concept formation) is substantial and statistically significant. The differences are 8.53 points on
BIA total scores ($t = 3.65$, $p < .01$), 10.22 points on verbal ability scores ($t = 4.13$, $p < .01$), and 12.43 points on concept formation scores ($t = 5.04$, $p < .01$). Second, the difference in family daily hassles scores is also substantial and statistically significant. The mean score for white mothers was 110.85; whereas, the mean score for African American mothers was 130.78 ($t = -3.66$, $p < .01$).

These data are potentially important for the following reasons. First, these data indicate that African American mothers from intact families experience more frequent and more negative daily stressors than do white mothers from intact families. Second, because the results of this study indicate that there are significant associations between family daily hassles and children’s cognitive ability for intact families, it is possible that racial differences in children’s cognitive ability scores are partially explained by the experiences of daily hassles as reported by mothers of different races.
DISCUSSION

The current study examined associations among family daily hassles, family resources, and children’s cognitive ability. This chapter will discuss limitations of the current study, an interpretation of the results, suggested directions for future research, implications of the findings, and a general summary of the study.

Limitations

The results of this study must be viewed cautiously in light of the study’s limitations. One limitation of this study was only including families from public schools. Because the researchers were not permitted access to the private schools in the area, families and children who attend these schools were not included in the study. Thus, white upper-income families were under represented in the study. It is also likely that this limited representation among intact families as well. A second limitation of this study was that the study did not utilize a true random sample. This limits the generalizability of the findings.

This study was also limited by its relatively small sample size, particularly when the sample was divided into intact families and single mother families. In particular, there was a small sample of white single mothers in the study. The cross sectional nature of the data was also a limitation of the current study. Caution should be exercised in interpreting the results in terms of any directional causal influence among the variables. Another limitation was the self-reported data collected from the mothers. The data are limited by the honesty and accuracy of the participants’ answers.
Interpretation of Findings

All data were examined and each hypothesis was tested with multiple regression analysis. As noted in chapter four, multicollinearity was not an issue in any of the models. The results of this study indicate that living in a family environment characterized by frequent and negative daily hassles was negatively associated with the cognitive ability of children living in intact families. The results also indicated that cohesion was positively associated with the cognitive ability of children living in intact families; whereas, hardiness was positively associated with the cognitive ability of children living in single mother households. There was modest support for a negative relationship between adaptability and children’s cognitive ability in both family structures.

One of the objectives of the study was to examine if the relationship of daily hassles and family resources to children’s cognitive ability were similar or different in first marriage families as compared with single mother families. Analyses of the data indicated that the relationships among these variables differed by family structure. Regression analyses indicated that family daily hassles and family cohesion were important factors for first marriage families. However, family hardiness was an important factor for single parent families. Adaptability was associated with one outcome measure for each family structure.

These findings are important because virtually no studies have examined the relationship between daily hassles or hardiness and children's cognitive ability. Only a few studies have examined the relationship between adaptability and cohesion and children's academic outcomes.
The results of this study lead to several questions. Why are different variables associated with children's outcomes for children living in different family structures? Why are these variables associated with cognitive ability? What processes are at play in these families? While definitive answers are beyond the data presented in this study, several answers are possible.

Daily Hassles

The finding that daily hassles are relevant for the lives of intact families with a child in first or third grade is consistent with the study by Olson and McCubbin (1983). In that study of over 1,000 families they found that day-to-day hassles were important to the lives of intact families, particularly for families with preadolescent school-aged children.

What processes might be at work that would lead to the association between daily hassles and children's cognitive ability for intact families? To some degree the effects might be direct. Given the consistent findings that daily hassles are related to individuals’ physical and mental health, children who live in families that experience more daily hassles may see a deterioration in their health status which could then lead to an erosion in cognitive ability.

The literature on marital tension and spillover may provide some answers to this question as well. Biller and Kimpton's (1997) review of research on elementary school-aged children suggests that children benefit from having involved and nurturing parents and that fathers provide a unique contribution to their children’s cognitive development. Their summary of the research also indicates that children who experience the presence and involvement of their fathers and who have fathers that display positive parenting
practices such as warmth tend to have higher levels of academic competence and are better adjusted at school.

Scholars who have studied marital tension and spillover have found some evidence that experiencing daily hassles is associated with decreases in fathers’ involvement with their children (Fagan, 2000), increased marital tension (Bolger et al., 1989), more intense interactions between parents and their children (Almeida et al., 1999), and poorer mother-child interactions (Pett et al., 1994). This suggests that one way daily hassles might operate to negatively effect children’s cognitive ability is by disrupting both the marital dyad and the parent-child dyad. The literature indicates that when parents experience daily hassles they are more likely to interact negatively with each other and with their children (either through direct negative interactions or through withdrawal). These types of responses within the family to daily hassles may be interrupting the types of behaviors that children benefit from in the development of cognitive abilities. Specifically, it may be the case that a family context characterized by more frequent and more negative daily hassles may lead to a family context of less parental involvement with the children and less nurturing parenting practices.

Another question that emerged from the results of the study is why were daily hassles unrelated to children’s cognitive ability in single parent households? The answer to this question may lie primarily in the fact that the life situation of these single mother families is very different than the life situation of the intact families. Children living in intact families have a father in the home and have not been through the major life event of separation or divorce (although children living with never married mothers
have not been through separation or divorce either; however, the biological father might still be present in some never married families).

The single parent families in this study were very poor in comparison with the intact families. The average family income for the single parent families was $10,000 to $19,999; whereas, the average family income for intact families was $40,000 to $59,999. Ninety four percent of single mothers reported that their income was under $40,000; whereas, sixty three percent of intact families reported an income of $40,000 or above. This indicates that not only were many of the single mother families low-income but also that there was a fairly low ceiling on the upper income range for most of these families. Also, in this study the majority of single parents were African American (74%), while a slight majority of intact families were white (56%). This would place the single mother families at a higher risk of encountering problems associated with racial prejudice.

The life situation of single parent families in this study is one of chronic, major stressors. As mentioned in chapter two, research indicates that living in an impoverished environment is associated with lower academic achievement among children (Danzinger et al., 1994; Duncan & Brooks-Gunn, 1997). It is likely that the chronic stressors experienced by families living in this environment are so severe and pervasive that the impact of everyday minor stressors on children's cognitive ability pale in comparison.

Given the demographic composition of the single mother families in this study, the finding that daily hassles were not as relevant to these families is consistent with the research of McCallum et al. (2002). Their research indicates that the stress experiences
for low-income African American women differ from the stress experiences of white families and non-poor families. Specifically, the sources of stress experienced by these families tend to be chronic in nature and tend to center around a lack of adequate resources and problems in role-functioning. These scholars contend that these sources of stress are much more salient to everyday life and outcomes for these families than are sources of stress measured by traditional life events and daily hassles assessments.

Family Hardiness

Why was family hardiness related to children’s cognitive ability in single mother but not intact families? For children living in the single parent family environment the differential factor was not daily hassles or cohesion. Rather, it was the family’s dispositional style (hardiness) that distinguished children’s cognitive ability outcomes in these families. Conversely, family hardiness was not associated with children’s cognitive ability in intact families.

As stated previously, hardiness refers to having a sense of control, commitment, confidence, and challenge. It may be that this resource is particularly important to single mother families because many of them have fewer resources at their disposal (e.g., less money, no father in the home). For example, McCubbin et al. (1998) found that hardiness was of more central importance in predicting family dysfunction for single parent families than it was for predicting family dysfunction in two parent families. These researchers suggest that single parent households may be required to be more self-sufficient than two parent households. Greef and Human (2004) also found that hardiness was an important resource for single parent families in their adjustment to the death of a spouse/parent.
The findings from McCallum et al.’s (2002) study of low-income African American women discussed above also suggest that hardiness could be an important family resource. While hardiness is not discussed or even mentioned in their study, they found that three themes ran across all categories of stressors discussed by the women in their study. They found that the participants’ conveyed a sense of lacking control over events in their lives, of viewing the circumstances of their lives as undesirable, and of feeling alienated from other people and the larger society. One could readily see how family hardiness could distinguish between outcomes for mothers and their children living in this type of environment.

It should also be noted that the results did indicate that hardiness was associated with children's cognitive ability after controlling for income. This indicates that hardiness is not just an important resource for poor single mother families. However, as discussed above, only five of the single mother families in this study reported an income of $40,000 or above. While it is unclear whether hardiness would have the same relevance to upper-income single mother families, the reality is that the vast majority of single mother families in the United States live relatively close to or below the poverty line. Very few single mother families have high annual incomes (Amato, 2000).

These results indicate that family hardiness is an important resource for children living in a single mother family. Children living in this family structure seem to benefit most by living in a family that has a strong sense of control, that views problems as a challenge, and that approaches problems with commitment and confidence. This may be the case because these families have experienced the depletion of so many tangible
resources that an internal dispositional style or orientation toward the stressors of life is one of the few resources left at their disposal to distinguish among outcomes.

Cohesion

Analyses of the data in chapter four indicated that higher levels of closeness and bonding (cohesion) among family members were positively associated with the cognitive ability of children in intact families. This finding suggest that a family atmosphere that could be described as connected to enmeshed is more beneficial for first and third grade children than is a family atmosphere that could be described as separated to disengaged.

Three studies were discussed in chapter two that examined the relationship between family cohesion and children's academic outcomes (not cognitive ability). Unger et al. (2000) found that for adolescent girls, cohesion mediated the relationship between parental conflict and grade point average. Masselam and Marcus (1990) found that the families of youth who were in alternative schools because they were not successfully progressing in public schools had lower levels of family cohesion than the families of youth who were successfully progressing in public schools. However, the study by Smith et al. (2001) found no association between cohesion and kindergarten students' reading achievement.

These studies are important for two reasons. One, the studies by Masselam and Marcus (1990) and Unger et al. (2000) provide evidence that cohesion is an important resource for children's cognitive ability. Two, the three studies cited above use different samples which is relevant to this study's finding that cohesion was associated with children's outcomes for intact families but not single parent families.
All three studies included diverse family structures in the analyses of their data. However, in the study by Masselam and Marcus (1990) 72% of the participants lived in a two parent family and 84% of the participants were white. In the study by Unger et al. (2000) 84% of the participants were white and 69% of the participants lived in intact families. The participants who were not living in intact families were required to live in a single parent household that had experienced separation or divorce and the children had to still have regular contact with the non-custodial parent. In the study by Smith et al. (2001) 31% of the participants lived in two parent families, 42% lived in families in which the parent had never married, and 27% lived in other single parent structures. All of the participants in their study were African American and the authors also stated that these families had higher levels of poverty than the national average.

In examining the demographics of the participants in these three studies, it is apparent that the participants in the studies by Masselam and Marcus (1990) and Unger et al. (2000) more closely resemble the intact families in this study than the participants in the study by Smith et al. (2001). The participants in that study, which found no association between cohesion and children's reading achievement, much more closely resembled the single mother families in this study. These studies provide some support for the finding in this study that the association between family cohesion and children's cognitive ability varied by family structure.

Adaptability

In this study, adaptability was negatively associated with the concept formation scores of children living in intact families and was negatively associated with the verbal ability scores of children living in single mother families. This suggests that for these
two outcome variables a family atmosphere that could be described as flexible to chaotic is less beneficial for first and third grade children than is a family atmosphere that could be described as structured to rigid. This finding makes sense theoretically given the ages of the children in this study.

It is unclear why adaptability was associated with only these two tests of cognitive ability and not with others. Masselam and Marcus (1990) also found cohesion to be a more important resource than adaptability in distinguishing between the academic outcomes of the participants in their study. However, adaptability, more than any of the other non-control variables examined in this study, demonstrated potential utility for both intact and single mother families.

Tests of Cognitive Ability

The findings presented in chapter four indicated that the strength of association among the variables of interest in this study varied by cognitive ability test. For example, neither regression model with visual matching as the dependent variable was significant. Within family structures there were differences in both how much variance was explained for each test and in which variables were associated with which test.

For intact families, the model with concept formation as the dependent variable explained the most variance (29%, adjusted $R^2$). Among individual variables daily hassles was most strongly related to verbal ability ($\beta = -.25$) and cohesion was most strongly related to total BIA scores ($\beta = .24$). For single mother families, the model with verbal ability as the dependent variable explained the most variance (26% adjusted $R^2$). Among individual variables hardiness ($\beta = .40$) and adaptability ($\beta = -.32$) were most strongly associated with verbal ability scores.
It appears that daily hassles are particularly important for the verbal ability of children living in intact families; whereas, hardiness and adaptability appear to be important for the verbal ability of children living in single mother families. These findings suggest that in addition to thinking globally about children's cognitive ability, researchers should also think about specific aspects of cognitive ability as well.

Directions for Future Research

This study was unique and indicated the existence of relationships between important constructs in the family stress field and an important child outcome (cognitive ability) that had not previously been examined in the research literature. The following are suggestions for future research on this topic.

First, future research in the field of family stress and coping should further clarify how the stress process is similar or different in various types of family structures. Very rarely do individual studies explore variations in the stress process this way. Most studies focus either on one type of family structure or treat family structure as a control variable. The current study, in addition to a few studies discussed previously, indicates that the importance of stressors and resources may differ widely depending upon the composition of one’s family. This is potentially an important framework for future research in clarifying how the stress process works in families.

In addition to examining intact families and single mother families, future research should also include other family forms such as single father families and blended families. Future studies would also benefit from a larger sample than the one in the current study including a better representation of higher income intact families, a better representation of white single mother families, and a better representation of
higher income single mother families. Future research should also examine whether there is variation in the stress process among divorced, separated, and never married families.

Future research should explore paths by which daily hassles might influence children’s cognitive ability such as through increased marital tension and more intense parent-child interactions. Research on marital tension and spillover appears to be a fruitful area to pursue in future studies on this topic. Studies that incorporated Structural Equation Modeling to test these paths would be beneficial. Also, more qualitative research on daily hassles and children's outcomes is needed as well.

The additional note presented at the end of chapter four indicated that daily hassles may be a variable that could account for some of the difference in the test score gap between white children and African American children living in intact families. Currently, this is a debated topic that appears ripe for future research. Including daily hassles into future research and debate on the test score gap could help shed some light on the family processes involved that lead to such a gap. Given the differences in daily hassles scores between African American mothers in intact families and white mothers in intact families, daily hassles may prove useful in this area of inquiry.

More research on hardiness is also needed. There is as of yet little clarity on how it operates, on how it can be developed, or on whether it is something families can increase. As noted by Judge (1998) it may be that hardiness operates through families’ use of effective coping skills. More understanding is needed on how hardiness operates to best serve families in relation to important outcomes. The current study indicates
that this may be a family level resource of central importance for children living in single mother families, particularly if the family is in a low-income environment.

Future research on stress and children's cognitive ability should explore specific aspects of that construct. Specifically, more research on children's verbal ability and concept formation seems warranted.

Implications

The results of this study may provide important insights for educators, teachers, practitioners, and families with school-aged children. The findings of this study indicate the need for greater precision in understanding what factors are relevant for which families. It is often the case that programs are designed based on the findings of quality research. However, in practice these programs are often implemented to a general audience with little attention given to who the participants actually were in the research studies. Individuals who design and implement intervention or enrichment programs should keep a focus on who the participants are in given studies.

The current study highlights this importance. For example, a practitioner might desire to design and implement a program aimed at increasing the cognitive ability of first and third grade children. This study would indicate that the practitioner would do well to design a program for intact families that focused on daily hassles and family cohesion. Another program should be designed for single mother families that focused primarily on family hardiness. For the family sciences to have its greatest impact in the community through an integration of research, program design, and program implementation, this level of precision is needed.
Teachers and practitioners might also benefit from utilizing measures such as the Family Daily Hassles Inventory in their work. For example, a practitioner working with intact families might have the families fill out the inventory during their first session. This would allow the practitioner to determine both the overall hassles score for the family and would allow the practitioner to assess scores on individual items. In the current study, household chores and family financial matters scored high among mothers from intact families. This points to specific content areas that could be addressed in designing and implementing a program with clients.

The findings from this study also suggest that practitioners should pay special attention to the concept of hardiness when working with single mother families. Programs designed at helping single mother families develop and strengthen this family resource would appear to be beneficial.

Practitioners should also continue to examine family cohesion in intact families. Promoting behaviors within families that promote a healthy level of family closeness and sense of togetherness appears to have beneficial effects for children. However, practitioners must use caution because different levels of family cohesion appear to be more or less beneficial at different stages of the life cycle (Olson & McCubbin, 1983). This study focused on families with a child in first grade or third grade. It may be that less cohesion is ideal in families with teenage children than with younger children given their different developmental stages. However, this study suggests that a fairly high level of family closeness is beneficial for children’s cognitive ability at these younger ages.
Conclusion

The purpose of this study was to explore the relationships among families' daily hassles, families' resources (hardiness, adaptability, and cohesion), and children's cognitive ability. Specific objectives included: (a) examine if living in a family environment characterized by more frequent and more negative daily hassles is related to children's cognitive ability, (b) examine if family resources, specifically family hardiness, family adaptability, and family cohesion are related to children's cognitive ability, and (c) examine if the relationship of daily hassles and family resources to children's cognitive ability are similar or different in first marriage families as compared with single mother families.

The study generated several findings. Daily hassles were negatively associated with the cognitive ability of children living in intact families. Specifically, daily hassles were associated with children's total BIA score, verbal ability score, and concept formation score.

Family cohesion was positively associated with the cognitive ability of children living in intact families. Specifically, cohesion was associated with children's total BIA score, concept formation score, and visual matching score. Adaptability was negatively associated with the concept formation score of children living in intact families and was negatively associated with the verbal ability score of children living in single mother families. Hardiness was positively associated with the cognitive ability of children living in single parent families. Specifically, hardiness was associated with children's total BIA score, children's verbal ability score, and children's concept formation score.
These results indicated that the relationship among the variables varied by family structure. Daily hassles and cohesion were associated with cognitive ability outcomes for children in intact families; whereas, hardiness was associated with cognitive ability outcomes for children in single mother families.

The findings from this study underscore the continuing need to understand the impact of diverse family forms on individual's development (e.g., Bronfenbrenner, 1990; Demo, Allen, & Fine, 2000; Sussman, Steinmetz, & Peterson, 1999). Family stress theory will thrive as a useful theoretical perspective if researchers will pursue understanding the stressors and resources that are salient for individuals living in particular family structures. This study supports the contention of scholars such as McCallum et al. (2002) and Heath and Orthner (1999) that there are differences in which stressors and resources are relevant to the life situation of different groups of individuals (e.g., single parent families, low-income families).

The finding that daily hassles were related to the cognitive ability of children living in intact families supports Walker's (1985) contextual model of family stress. She contends that families are constantly being called upon to manage stressors. This led her to advocate further exploration of daily stressors as opposed to simply examining major life events. Most of the research on daily hassles continues to be conducted by scholars in the medical and psychology fields. This study indicates that the family stress field would benefit from utilizing daily hassles more often in research, particularly in studies focused on preadolescent school-age children (Banez & Compas, 1990) and on outcomes other than psychosomatic health (e.g., children's cognitive ability).
REFERENCES


VITA

Troy D. Stuart was born on January 8, 1973, in Fort Hood, Texas. He was educated at Ouachita Christian School in Monroe, Louisiana. He earned a Bachelor of Arts degree from Louisiana State University in 1995 and a Master of Arts degree from Abilene Christian University in 1998.

From 2001 to the present, the author has been employed by the South Baton Rouge Church of Christ. He is married to Tanya Stuart and is the father of Jadon Stuart and Jonas Stuart.