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The antecedents and correlates of the use of self-care for school-age children

Cole, Cynthia Mae, Ph.D.

The University of North Carolina at Greensboro, 1989

THE ANTECEDENTS AND CORRELATES OF THE USE OF

SELF-CARE FOR SCHOOL-AGE CHILDREN

by

Cynthia Mae Cole

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Greensboro
1989

Approved by

_____
Dissertation Advisor

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

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June 23, 1989
Date of Acceptance by Committee

June 23, 1989
Date of Final Oral Examination

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COLE, CYNTHIA MAE, Ph.D. The Antecedents and Correlates of
the Use of Self-Care for School-Age Children. (1989)
Directed by Dr. Hyman Rodman. 192 pp.

The objectives of this study were to: 1) Describe
patterns of use of self-care among families participating in
a longitudinal study of maternal-child interaction, 2)
Propose a conceptual model to explain family choice of self-
care, and 3) Develop and test a set of mathematical models
predicting use of self-care during the school-week, using
logistic regression.

The data on the independent variables used in this
study were obtained from a longitudinal study directed by
Dr. Earl Schaefer. Three hundred twenty-two women in the
last trimester of pregnancy who were receiving prenatal care
through the Guilford County Health Department agreed to
participate in 1975 and 1976. Data for this study were
gathered in two cohorts from 191 mothers (75% black and
predominantly low-income) during home-based maternal
interviews in 1980 and 1981 and again in 1984 and 1985.
Data on use of self-care were gathered from their nine- or
ten-year-old children during school-based interviews during
the 1985-86 and 1986-87 school years.

Race and gender were the most powerful predictors of
use of self-care. Black families used self-care at
significantly lower rates than white families and
significantly less as household size rose. Black girls were
much less likely to be in self-care than black boys. Among
whites, use of self-care was associated with maternal

employment, more siblings, and maternal concern about whether her employment is good for her child. There were no gender differences among whites.

ACKNOWLEDGMENTS

My gratitude to my advisor, Hyman Rodman, and to my committee members, Keith Howell, Richard Jaeger, and Rebecca Smith, can't possibly cover everything that they have done to support me as a student, as a colleague, and as a friend. Each one has made unique and invaluable contributions to my graduate experience at UNC Greensboro. Each deserves to have pages of recognition, rather than these brief words. Hy gave me opportunity after opportunity to develop my writing and research skills, and promoted my wellbeing in a manner far beyond my wildest dreams. Keith allowed me to develop and teach a course in his department, enabling me to remember that I had been someone other than a student and could be again. Dick set me loose on major projects that taught me how the research process goes, from first idea to final report. He also taught me that nothing but the best is good enough. Rebecca showed me that research is above all, sensible. She also shared with me a deep interest in moral reasoning. I can't repay them for the time, professionalism, and wisdom that they made available to me, but I hope to pass it on in the spirit in which it was given to me.

I am grateful to Earl Schaefer in the Department of Maternal and Child Health at UNC Chapel Hill for allowing me

to participate in his longitudinal study of maternal-child interaction and to use the data from that study for my own research. The funding for the main study has come from the National Institutes of Mental Health (NIMH). Karen St. Clair and Chuck Burnett, staff members with the maternal-child interaction project, provided substantial assistance with data collection and data management.

Tarlouh Wiggins, Judy Martin, and Marlene Pratto of the Academic Computer Center at UNC Greensboro had the persistence of hound dogs on the hunt when it came to meeting the excessive challenges involved with data management and analysis on four incompatible computer systems. Joe White provided meticulous assistance with data entry, child care, encouragement, and auto repair. He always had time to rescue me cheerfully. Rita O'Sullivan and her family educated, advised, and fed me.

The University of Alabama provided a great deal of support during the final stages of my dissertation. I was granted a three-month leave of absence to complete writing the dissertation. Jim Leeper protected my time, Will Coggins approved my leave, and Harriet Myers and Lee Badger took over some of my responsibilities during my absence. Chris Nagy led the cheering squad, but many people were members of it.

My children, Stephen and Justin, gave up material resources, maternal attention, and a sane adolescence while

I plunged into graduate school. They never complained (at least not about my graduate program!) and apparently never considered that I might not make it. They talked over statistical problems with me, wrote equations in the sand at the beach, kneaded the kinks out of my neck, helped me move, and carried on their own lives in admirable fashion. No mother could have better rewards. In the end, what got me through was knowing that I couldn't show two wonderful boys how to quit.

There was another brave person who chose to involve himself in my life while the trauma of graduate school was unfolding. Lyle Snider was first my friend, then my fiance, then my husband during the five years of my program. He married me just in time to reap the full benefits of dissertation madness. He comforted me, suggested analytical approaches, copied through the long nights, taught me how to use LIMDEP and spreadsheets, cooked, cleaned, and agreed to move to Alabama so I could try my wings as an assistant professor. Perhaps best of all, he insisted that some parts of our life together had to remain normal.

There is a great deal unacknowledged still. I hope that each of you knows how much I value it all.

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CHAPTER ONE

Introduction and Problem Statement

Context for the Study

Articles in the popular and professional press
(Collins, 1984; Sitomer, 1984; Long & Long, 1982; Steinberg,
1986) have indicated a growing concern about the numbers of
school-age children who care for themselves before and after
school, often while parents work. A smaller number of
authors (Rodman, Pratto & Nelson, 1985; Fossarelli, 1985;
Vandell & Corasaniti, 1988) suggest that such concern is not
clearly warranted by the research evidence presently
available. For the most part, these latter authors do not
promote the view that self-care has beneficial outcomes for
children. They simply say that the evidence does not
support the widespread concern about negative consequences
for the children who experience it.

Most reports assume that families are forced to use
self-care because they have no other options, that this care
arrangement can and often does have negative consequences
for children's development and that, if given a choice, both
parents and children would prefer some other care
arrangement for children from 6 to 13. To this point in the
self-care controversy, there has been very little discussion·
of the possibility that parents may deliberately choose

self-care in order to accomplish specific child-rearing goals.

It is certainly plausible that, all other things being equal, children with experience in caring for themselves at a reasonable age and for reasonable amounts of time will either benefit from the increased responsibility or will show no developmental differences, when compared with children under adult care (Werner, 1989). There is, at present, a critical need for further research on all aspects of school-age self-care that will establish the numbers of families using self-care, describe any salient demographic or other characteristics that families using self-care might exhibit, investigate the reasons families might have for using this care arrangement, assess the ages of the children involved, and determine whether the expressed serious concerns about negative outcomes are, in fact, realistic. This study will address all but the last of these research questions.

Choices about caring for school-age children occur in a different context for each family. It is logical to believe that the decision to provide adult care or to allow children to care for themselves, and possibly brothers and sisters, is determined, not by a single cause, but by a number of family, child, and neighborhood characteristics. The objectives of this study are to:

1. Describe patterns of use of self-care among a group of families already participating in a longitudinal study of maternal-child interactions.

2. Propose a conceptual model to explain family choice of self-care.

3. Develop and test the efficacy of a set of mathematical models predicting use of self-care during the school-week.

Specifically, the question to be answered is, "How are selected maternal and child characteristics associated with family decisions about out-of-school child care for their nine- and ten-year-old children?" The question is particularly relevant for the subjects in this study, because they are potentially high-risk for developmental problems, based on family characteristics alone. The mothers are low-income, predominantly black, relatively poorly educated, and the majority are unmarried. The mathematical models tested were based on the conceptual model proposed, within the limits imposed by the data available and the size of the sample used in the longitudinal study.

The present investigation is part of a longitudinal study of maternal-child relationships begun in 1976 when the mothers of the children in the study were in the third trimester of pregnancy. The children were 9 or 10 years old when information about family use of self care was gathered in two cohorts during the 1985-86 and 1986-87 academic years.

Nature of the Problem

Children who spend some portion of each day without direct adult supervision are usually referred to as latchkey children by those who anticipate a negative impact from this form of care arrangement and as self-care children by those who believe that care arrangements alone do not cause positive or negative outcomes. Estimates of the number of children who are in this situation vary "from a low of 1.8 million, reported by the U.S. Bureau of the Census in 1976, to a high of 7 million reported by Editorial Research Reports in 1983" (Seligson, Genser, Gannett and Gray, 1983). The most recent estimate by the United States Bureau of the Census (January, 1987) is based on a survey completed in 1984. The Census Bureau reports that the number of children between the ages of five and thirteen in self-care is 552,000 before school, 2.1 million after school, and 249,000 at night. Occasionally, published estimates based on other sources state that as many as ten million or more of the 28.9 million children enrolled in school in December of 1984 are in self-care. The huge range of estimates typically used reflects the current lack of information about the nature of family care arrangements for school age children. If one assumes that necessity is the primary reason for use of self-care for school-age children, it is probable that large numbers of children are involved, given documented

(Bureau of the Census, 1984) large increases in the numbers of dual-worker families, households headed by employed single men and women, and the small number of before- and after-school care programs available for this age group.

The nature of the concern focused on this situation can perhaps be captured best by quoting James Garbarino (1984) when he notes that the main dangers of school-age children caring for themselves are the risks of ". . . feeling badly (e.g., rejected, afraid, and lonely), acting badly (e.g., victimizing younger siblings, engaging in destructive behavior inside and outside the home), developing badly (e.g. having school adjustment problems, developing negative feelings about parents), and being treated badly (e.g., suffering accidents and sexual victimization)" (pp. 19-20). The degree to which these potential problems have been accepted as fact can be documented by the number of articles in the popular and professional press that cite self-care as a serious problem (e.g., Sitomer, 1984) and the number of communities initiating programs to provide school-age child-care (Child Welfare League, 1982). Such programs provide support for children on their own (Brower, 1985), and/or train families in the skills associated with self-care (Collins, 1984).

Most of the literature questioning the appropriateness of school-age children caring for themselves assumes that the practice carries similar risks for most children and

families and that the reasons for using it are similar and involuntary to a greater or lesser degree. Yet, as Lefstein et al (1982:5) note about children in the upper end of the age range under consideration here, "Variety among 10- to 15-year-olds--young adolescents--is not confined solely to age at puberty and physical appearance. . . . In early adolescence the spectrum of normalcy is broader and more diverse than at any other time of life."

It is likely that many parents and experts in child development would agree that it is unwise to leave a five-year-old child alone for any length of time. The likelihood of disagreement increases substantially with the child's age, as variety in development and circumstances increases. A potential implication is that self-care may be beneficial for a given child within a given family and social context, but harmful for another child in another family context. Some research has suggested that families at many different income levels use self-care, suggesting the possibility that economic necessity is not the only reason for choosing that care option. For example, Strother (1984) states that "Certain characteristics of parents play a role in determining the kind of child care that they provide for their children. Parents with higher-than-average incomes are more likely than others to care for their children themselves. Parents with very high levels of educational

attainment, parents with lower-than-average incomes, and white parents all tend more often than others to expect children to take care of themselves or to be cared for by siblings" (p. 291).

The results of the above-mentioned survey of self-care practices reported by the U.S. Bureau of the Census are quite similar. The diversity of these groups and their choices of care options for their children suggest that while some parents choose self-care out of necessity, others believe that it is developmentally appropriate for children of this age to care for themselves and, at times, others.

Fosarelli (1985) has emphasized the need to evaluate family size and structure, socioeconomic status, educational level of parents, parental attitudes toward working mothers, the ordinal position of the child in self-care, the age when first left alone, the amount of time alone, self-care versus sibling care, the child's sense of self, and other variables, in order to understand the context in which self-care occurs. Only then is there likely to be enough information available to shed light on the processes affecting the caretaking arrangements chosen for school-age children and the short- and long-range outcomes of those arrangements. Until further research evidence is gathered on all these points, predictions of serious negative outcomes from the self-care arrangement alone, in the absence of other factors, are premature.

The Debate Over the Nature of Childhood

It is of some interest to ask why a relatively widespread practice of child care, that has not been shown to be clearly harmful, should have generated such a large amount of negative attention. Perhaps some light on this issue can be shed by consideration of a set of conflicting values about the meaning and purpose of childhood that is contained within American culture.

Postman (1982:p. xi) points out that the idea that children require different treatment than adults in order to develop properly is a new one in Western European culture. He states that "if we take the word children to mean a special class of people somewhere between the ages of seven and, say, seventeen, requiring special forms of nurturing and protection, and believed to be qualitatively different from adults, then there is ample evidence that children have existed for less than four hundred years." Certainly, white, middle-class American culture values an individual's ability to establish independence during the late teens and early twenties and frequently requires demonstrations of independent behavior from young children as evidence that progress toward that goal is being made. There is also ample evidence that the same white, middle-class Americans have taken up elements of the newer value system, noted by Postman, that values childhood as a distinct period of time

when children should be protected and sheltered from adult responsibilities.

Several authors have addressed the need for children to achieve adult competence, but the mechanisms suggested for arriving at that end-point are radically different. These authors do not address the self-care issue directly, but there is a hint of the differences in viewpoint about the proper activities of childhood that lead some to advocate continuous adult supervision throughout childhood and some to advocate increasing independence from direct adult supervision. For example, Galambos (1984:8-9) emphasizes the special role of play in developing adult behavior when she says that "Children must become adept at the basic skills of the human community, in the area of language, body control, morality, reasoning, and interpersonal relations. Unless children become competent in these areas, they are a problem--for their family, for our society, and for themselves. Play and developing competence go together, of course."

A major concern of those opposed to self-care for school-age children is the potential negative impact of self-care on the opportunity for children to engage in play. Garbarino and others support continuous adult supervision for school-age children, freeing the children from adult-like responsibilities so that they can "work" on their development through play.

The limited research to date on what actually occurs during children's time in self-care indicates that parents often do limit play activities, especially those that involve other children or movement outside the home, in order to increase the physical safety of the self-care environment. They also frequently assign household or homework tasks to be accomplished during periods of self-care. These common parental practices certainly have the effect of limiting play during self-care. However, the impact on children's development is not known.

Bartolome (1982) emphasizes a different aspect of childhood experience, directed toward the development of adult competence, when she advocates that children have much experience trying out adult behaviors. She states that "If children are to become responsible members of society, they must not only be exposed to adults involved in meaningful and demanding tasks, but they must themselves begin to participate in such activities early in life. We need to involve children in undertaking genuine responsibilities that will give them a sense of purpose, dignity and worth. Perhaps we can learn something from the Amish people, who involve their young children in the productive endeavors of the family" (p. 11). Involvement in adult activities can be interpreted in two ways by self-care supporters and detractors. The first group tends to favor children taking

adult-like reponsibility without the presence of adults, while the second group tends to favor planned and deliberate involvement of children and adults in cooperative tasks.

Conclusions

There is an incongruity between values which support sheltering children below seventeen from worldly reality and expecting those above eighteen to function as adults in that same worldly reality. As Lewis and Lewis observe (1982), "Children . . . are passive participants in activities for which they will be expected to assume responsibility, without more formal training or practice, at some magical age" (p. 14).

Far from being detrimental, self-care for school-age children can easily be seen as a training period during which they gradually assume increasing responsibility for their behavior and well-being, so that the transition to adulthood is less abrupt than the situation described by Lewis and Lewis. Many families have informal, age-related developmental milestones for their late adolescents, expecting their children to leave home, support themselves, and establish new family systems with relatively few demands on the family of origin during this time. Glick and Lin (1986) observe that an increasing number of late adolescents are failing to achieve these goals. One consequence is that the "empty nest" stage of family life may no longer feature an "empty nest". Though this phenomenon is no better

documented by research than the outcome of child self-care, there is a growing popular literature indicating that many adolescents and young adults are not establishing separate residences and independent financial resources at the "expected" age. Recent work by Moore (1984) suggests that, when late adolescents and their families agree on the need for personal control and physical separation without emotional separation from the family, the adolescents experience less difficulty in leaving home. It is entirely possible that gradually increasing responsibility for self and others within the supportive context of the family during late childhood and early adolescence offers the opportunity to acquire and practice skills required for successful differentiation from the family of origin.

This brief review of the issues presented by the current controversy over the impact of self-care on school-age children suggests that there are a number of concerns to be addressed by future research. These include the following: 1. How widespread is the use of self-care for school-age children in general and among selected groups of interest (for example, among children at high risk for poor development)? 2. Is the use of self-care growing? 3. Are families choosing self-care out of necessity or are they doing so because they believe that self-care is an acceptable or beneficial experience for their children?

4. Is there evidence that self-care is harmful to children or their families? 5. How do neighborhood, family, and child characteristics influence the choice of self-care? Questions 1, 3, and 5 will be will be addressed in this study.

Definitions

For the purposes of this study, families will be considered never to have used self-care for the index child if the child reports that he or she has never been left alone or with other young people under age fourteen, without an adult present. Families will be defined as having used self-care if the children report that they have been left alone or with other children under age fourteen on at least one occasion. This self-care group will be divided into two sub-groups: families who use self-care sporadically and those who use it regularly. Sporadic users of self-care are those families whose children report at least one episode of self-care, but who report that it has not occurred during the previous three school days and/or that it does not usually occur on school days each week. Children will be defined to be in regular self-care if they report that they have stayed alone or with other children under fourteen for at least five minutes during one or more of the previous three school days and/or that they usually do so. In effect, these distinctions form three levels of child self-care: children who report no use of self-care; children who

report at least one episode of self-care, but are not in self-care on a regular basis; and those who report some time in self-care on a regular basis.

Children who report that they first were left alone at age 5 or less will be eliminated from the analysis, as that situation is more likely to represent neglect than self-care.

<div align="center">

Hypotheses

</div>

The research hypotheses to be investigated were developed based on two explanatory models of parental behavior. See Figure 1 for the first, Belsky's 1984 process model of the determinants of parenting. This ecological model asserts that parental behaviors are determined by a variety of individual, family, and contextual factors. The second model, proposed by Cain and Hofferth (1989) is specifically designed to predict parental child care arrangements for school-age children. This model is depicted in Figure 2. While the authors of this model do not refer to it as an ecological model, it is clear that the indicators of need, quality, cost, and preferences tested by Cain and Hofferth fall into one or more of the general caregories of factors proposed by Belsky and that all categories are represented.

The adaptation of these two models proposed for this study is shown in Figure 3. It more closely resembles the

Figure 1:   A Process Model of the Determinants of Parenting**
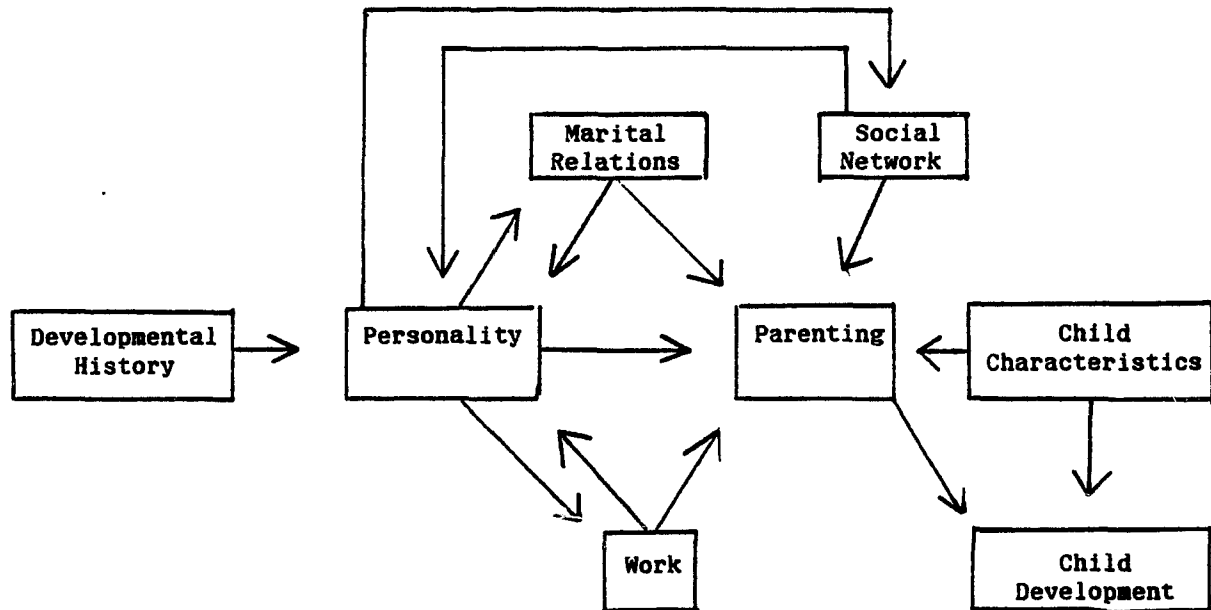
Figure 2: Cain and Hofferth Model of Determinants of Child Care
Arrangements **
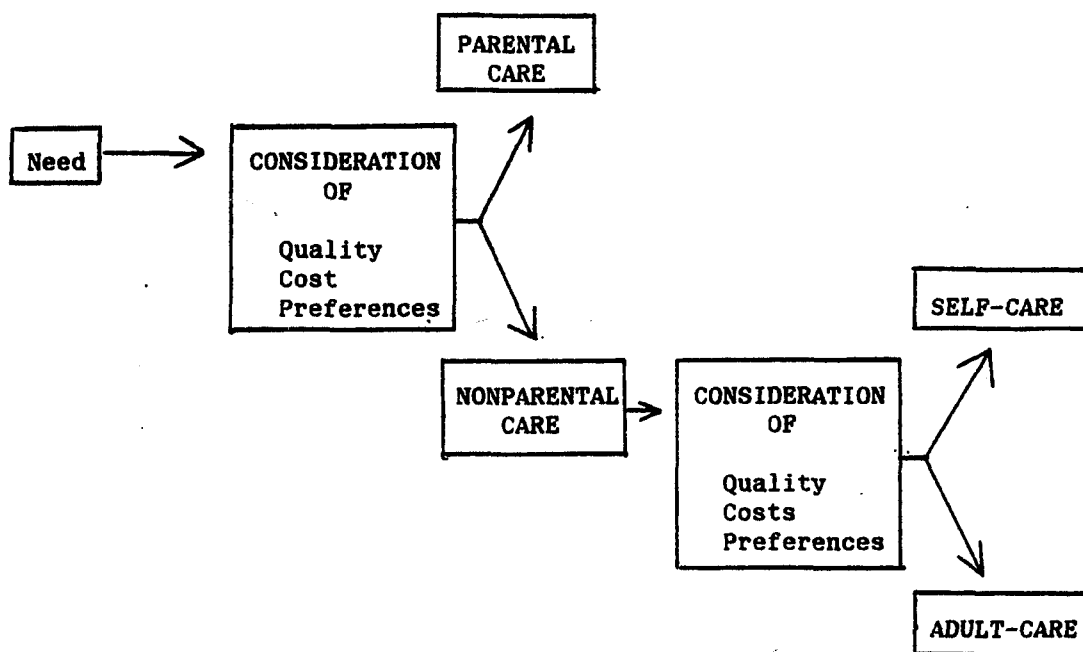
INDICATORS:

Need	Cost	Preferences

maternal employment
maternal school
   enrollment
	number of non-
	   parental adults
	   in home
	two-parent family
		race
		mother's occupation
		mother's education
		child's age

Quality	mother's education	gender of child number of other
child's age family income central city residence		children under 14

**Based on Cain, V. S. and Hofferth, S. L. (February 1989). Parental choice of
self-care for school-age children. Journal of Marriage and the Family, 65-
77

Figure 3:   Model of Determinants of Self-Care To Be Tested in This Study

```
┌──────┐
│ Race │
└──────┘
   │
   ▼
┌──────────────┐
│ Perceived Age│
│ Of Maturity  │
└──────────────┘
   │
   ▼
```

┌────────────────────┐   ┌──────────────────┐   ┌────────────────┐
│ Self-Care Trigger │   │ Consideration of:│   │ Continued Adult│
│   │   │   │   │   Care   │
│   Parental   │   │ Quality   │   └────────────────┘
│   Employment   │   │   (Fitness of   │
│   │   ──▶ │   Child and   │
│   Family Errands/ │   │   Environment) │
│   Maintenance   │   │   │
│   │   │ Cost   │
│   Parental   │   │   (Necessity) │
│   Recreation   │   │   │
│   │   │ Preferences   │
│   Emergencies   │   │   (Maternal   │
└────────────────────┘   │   Attitudes)   │   ┌────────────────┐
                              │   │   │   Self-Care   │
                              │ Characteristics │   └────────────────┘
                              │   of Child   │
                              │   (Race and   │
                              │   Gender)   │
                              └──────────────────┘
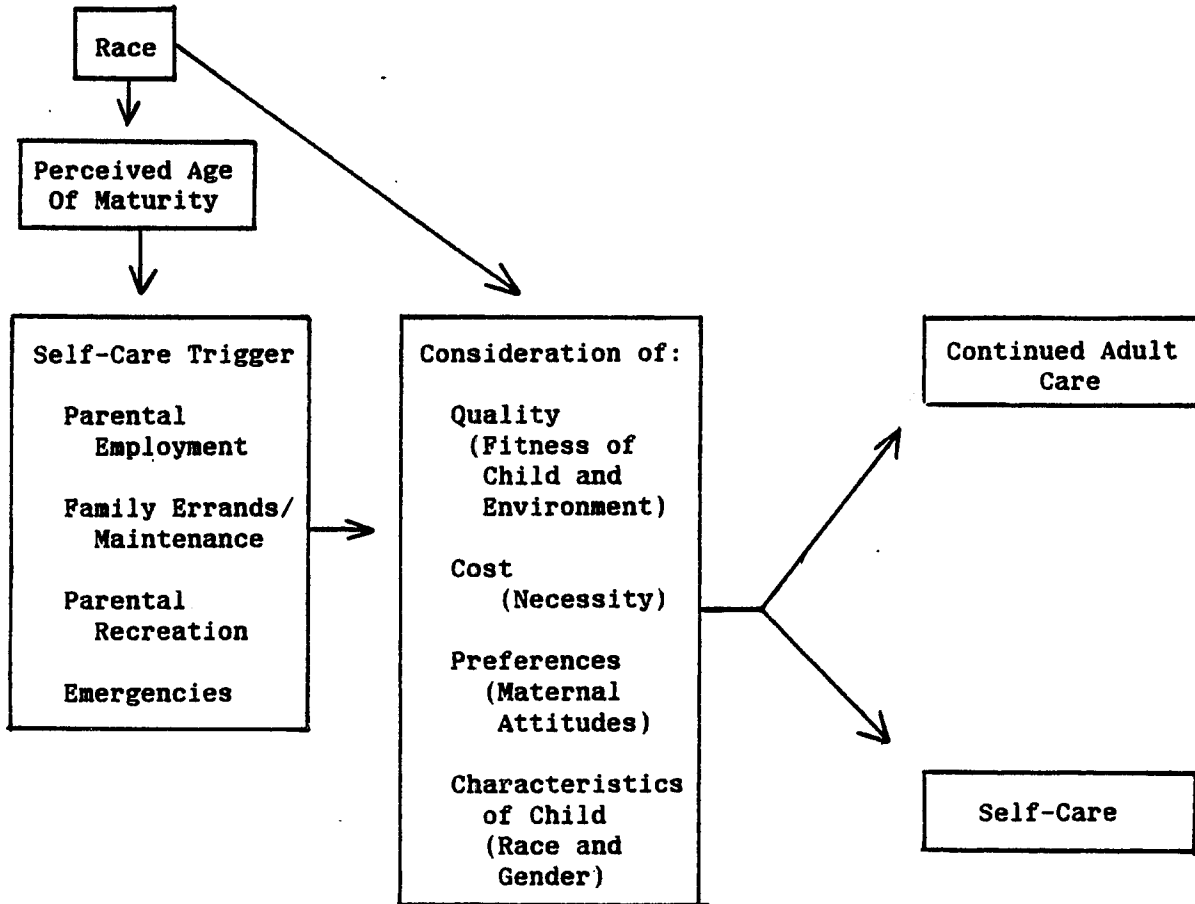
INDICATORS:

Self-Care Trigger	Quality	Cost	Preferences
(Y3WORKNG)	Y3RCBOBE	Y3MARST	YKPMTOT
	Y3CABIND	Y3ECONST	Y3CNFORM
	NBORSAFE	Y3PEOPLE	Y3SOMAT
	Y3SIBS	Y3WORKNG	Y3GD4KID

Characteristics of Child

RACE
GENDER

Cain and Hofferth model, in that it has grouped the variables related to predicting use of self-care in a very similar way. In the model in Figure 3, it is proposed that a notion of the minimum age of maturity for the initiation of self-care is held by individual parents. This perceived age of maturity marks the beginning of the causal chain leading to use of self-care.

The generalized notion of perceived age of maturity among various social networks undoubtedly varies. Among Americans in general, it is likely that the mean perceived age of maturity for occasional self-care falls between eight and nine years. McAninch's 1988 study of perceived age of maturity for a number of children's activities reported that parents believed that children were mature enough for occasional self-care at a mean age of 8.5 for boys and 8.3 for girls. The mean perceived age of maturity for regular self-care from the same study was over 1 year higher: 9.7 for boys and 9.6 for girls. The standard deviations for all these means were approximately 1.8, suggesting relatively wide bands of variability among the parents in the study.

The next step in the causal chain depicted in Figure 3 is the self-care trigger. It is proposed that there must be an occasion, event, or need for the parent(s) to be away from home to trigger an episode or episodes of self-care. Even if the remainder of the variables supporting use of self-care are favorable, the parent(s) will remain in the

home with the children in the absence of a trigger. It is possible that the rising tide of concern about parental use of self-care is associated with a general awareness of the increasing incidence of potential self-care triggers.

Once the child has achieved the parent's perceived age of maturity for self-care and a self-care trigger, or need for non-parental care, has been established, the third step in the causal chain is a consideration of four factors. The quality of various non-parental care arrangements is assessed, the cost of each is estimated, maternal preferences are weighed, and characteristics of the child are considered. The final outcome is the choice to provide continued supervision for the child by an individual over the age of thirteen or to allow the child to care for him or herself, possibly with siblings under the age of fourteen. Not all the data necessary to fully test the proposed model were available for this study. There was no measure of perceived age of maturity available. The fact that all children in the study were at least nine years old made it likely that at least some children would be perceived by their parents as mature enough for occasional or regular self-care. The only one of the potential self-care triggers for which data were available was maternal employment. Because there were no data available for other variables in this group, the author decided to analyze only the final

step in the causal chain and to include maternal employment in one of the three categories in the final predictive stage. Maternal employment was most related to the group of variables measuring the level of cost (or need) associated with self-care and was, therefore, analyzed in that group.

This model assumes that school-age self-care is a parental choice selected from a number of options, rather than a fully constrained necessity. It is highly probable that if research demonstrates variation in developmental outcome among children in self-care, it will be due, in part, to variation in antecedents and context. Variables considered under the category of "Quality" were maternal perception of child's obedience, maternal perception of child's independence, maternal perception of problems with neighborhood safety, and number of siblings living in the home. Variables considered under the category of "Cost" were maternal marital status, family economic well-being, number of people in the household, and maternal employment status. Variables considered under the category of "Preferences" were maternal parental modernity, maternal valuing of child's conforming behavior, maternal psychosomatic symptoms, and maternal belief that working is good for her child. Variables considered under the category of "Characteristics of the Child" were race and gender.

The research hypotheses that guided the study design and analysis were the following:

1. Use of self-care will be associated with maternal perception of the fitness of the child and the environment (maternal perception that the child is obedient and independent, few concerns about neighborhood safety, and increased number of siblings).

2. Use of self-care will be associated with necessity (unmarried mothers, economic straits, few alternative caretakers, maternal employment).

3. Use of self-care will be associated with maternal attitudes (parental modernity, low maternal valuing of conforming behavior on the part of her child, low maternal somatic symptoms, and maternal belief that her working is good for her child,).

4. The subjects in this study are relatively homogeneous on socioeconomic status. Therefore, even though the sample contains black and white subjects, there will be no differences between black and white families in the study with respect to use of self-care, family income, maternal education, and other variables of interest.

5. Use of self-care will be associated with male gender.

6. When the variables identified as significant in the preliminary analyses are entered into composite prediction models, the models will have increased ability to correctly predict use or non-use of self-care.

CHAPTER TWO

Review of the Literature

Introduction

The literature associated with self-care for school-age children is meager. While some of the important questions described previously are raised, and partially addressed by a few studies, a great deal of research remains to be done before the incidence, antecedents, and outcomes of self-care are thoroughly understood. The studies discussed here represent what is known currently about the characteristics of families using self-care and the impact, if any, of self-care on children or other family members.

As mentioned previously, most of the research on the self-care phenomenon apparently is guided primarily by the view that self-care is a social problem. For example, Clarke-Stewart (1977, p. 48) stated that "Unsupervised children (who are almost inevitably from low-income families) tend to experience much greater cognitive impoverishment than those who are supervised." This view has at least two implications. The first is that the research has been designed to ascertain how widespread the "problem" has become and to look for problematic outcomes. There has been little attempt to differentiate children and families on dimensions other than self-care. The second is

that there has been little attempt to develop or use explanatory models for the choice to use self-care. The goal has been to eliminate self-care as a phenomenon, not to understand it.

Even though the lack of explanatory models in this case is probably related to its status as a social problem, it is not uncommon for description to take precedence over explanation when a new research topic is first recognized or addressed. Unfortunately, efforts to describe the self-care phenomenon have often been guided by researchers' concerns about the negative outcomes of the practice. The assumption that self-care is always potentially harmful for children has possibly prevented researchers from asking appropriate questions.

Such questions might include: 1. Is there any evidence that self-care is helpful to children? What kinds of children? 2. Is there any evidence that parents deliberately choose self-care over other care options? On what basis might they make such a choice? 3. Is there any evidence that general models of parental decision-making might provide explanatory power for the specific decision to use self-care? Some of these questions will inform the content of this study.

Incidence of Self-Care

Perhaps the most reliable estimates of the incidence of self-care for school-age children in the United States come

from a national probability study conducted by the Bureau of the Census in December, 1984. Approximately 46,000 households responded to a supplementary questionnaire designed and administered by the Current Population Survey. The report of the survey results, <u>After-School Care of School-Age Children: December 1984</u> (January, 1987), carefully outlines potential sources of sampling and non-sampling variability, some of which almost certainly affect the accuracy of the figures. Nonetheless, these estimates are likely to represent the most accurate information available. This study estimates that of the 28.9 million children 5 to 13 years old enrolled in school, 552,000 (1.9%) children were in self-care before school, the majority for less than 1 hour a day. After school, 2.1 million children (7.3%) were in self-care, the majority for less than 2 hours a day. In the evening, 249,000 children (.9%) were in self-care. Ninety percent of all non-parental care at night of 3 hours or more was provided by another adult.

A major concern expressed by the popular press about children in self-care is that the numbers are rapidly growing, in large part because of dramatic increases in the number of working mothers. The Census Bureau substantiates an increase in the number of working mothers, reporting an 18.3% increase in the number of working mothers between 1965

and 1984. However, analysis of trends in school-age child care since 1965 do not support the belief that many of these new workers are leaving their children alone during out-of-school hours. In the decade between 1974 and 1984, the proportion of children without adult supervision dropped from 16 to 12 percent, a decrease of 200,000 children.

Antecedents of Self-Care

Perceived increases in the number of children in self-care are often attributed to family economic stress as well as to working mothers. The same Census Bureau study that provided the incidence figures is also the source of data on the social and economic characteristics of families using self-care. The authors report that white parents, more educated parents, and higher income parents are more likely than others to report that their children are in self-care during out-of-school hours. The report states that "Self-care may be a product of confidence in the child and the environment for some parents, as much as it is produced by the lack of alternatives or the inability to pay for care" (p. 4).

One of the presumed antecedents of self-care is parental perception that children are ready to assume responsibility for their behavior under less direct parental supervision. The accuracy of parental perceptions of their children thus would influence parents' ability to design an appropriate self-care situation. Schaefer, Hunter, and

Edgerton (1984) address an issue related to the question of how accurately parents perceive a child's ability to care for him/herself. They found a significant positive correlation between maternal psychosomatic anxiety during the child's infancy and later maternal reports of child somatic symptoms, depression, and introversion. The same study found that correlations between maternal and child reports of the same symptoms were relatively low. This finding suggests that maternal perceptions of the child may be influenced by mother's own characteristics as well as the child's. The Schaefer, Hunter, and Edgerton study suggests that mothers may not be completely accurate observers of their child's functioning. This lack of accuracy of perception puts families at risk for making the wrong decision about self-care: that is, refusing to allow a child who is ready to stay by himself or herself to do so, and allowing a child to stay alone who is not ready to do so. Belsky's 1984 article on the determinants of parenting makes a similar point when he proposes that parental decision-making is more a function of parental characteristics than of child characteristics.

Outcomes of Self-Care

Of the studies of self-care completed to date, by far the largest number have been concerned with the outcomes of self-care. Authors who have expressed concern about the

impact of self-care on school-age children have mentioned a number of possible negative outcomes. However, the few research studies conducted to date do not present a uniformly negative picture.

The Longs (1982, 1983) have suggested physical danger, fear, and anxiety as problems for children currently in self-care, and long-term negative developmental outcomes, possibly requiring therapy, for adults who have experienced self-care in the past. Their study was based on unstructured interviews, and the Longs cautioned that the interviewers may have been biased. Their study was also carried out in Washington DC, an urban area widely perceived as unsafe.

In Philadelphia, Woods (1972) examined two groups of black fifth-graders with employed mothers, one unsupervised and one supervised. Unsupervised girls were likely to score less well on measures of school achievement and school relations, but a large number of other measures showed no differences between the groups.

Galambos and Garbarino (1982) studied school adjustment, academic achievement, intrinsic versus extrinsic orientation in the classroom, and fear levels among three groups of 5th- and 7th-graders in a rural community. The three groups--children supervised by their own working mothers, other-adult-supervised children of working mothers, and unsupervised children of working mothers--showed no

differences on any of the measures. Likewise, Rodman,
Pratto and Nelson (1985) found no differences in self-
esteem, locus of control, and social and psychological
functioning for 48 pairs of fourth- and seventh-graders
matched on gender, socioeconomic status, and family type.

There is evidence that fear and loneliness, reported by
the Longs as negative outcomes of self-care, may be a
frequent occurrence for school-age children, independent of
care arrangements. Luftig (1985) suggests that the
increased research interest in children's social relations
in the past decade rests on the assumption that "children
with poor peer relations constitute an 'at-risk' population
who will experience poorer social learning opportunities and
who are likely to demonstrate future mental-health
adjustment problems" (p. 3). His study of over 300 2nd-,
4th-, and 6th-graders demonstrates that popularity decreases
and loneliness increases among the older subjects. It
appears that loneliness is a very common feature in the
experience of upper-elementary school children and is based
on how successful their social relations are. It is not
clear that the Long's study design ruled out this threat to
the validity of their findings.

Beale and Baskin (1984) have studied the fears of a
group of 58 Black and Hispanic children, aged 6 to 12 years,
from the East Bronx. Consistent with several other studies,

they found that the fear of a parent dying topped the list. The fear of being alone was ranked thirteenth for the boys and sixth for the girls out of a list of 21. These urban children feared drug addicts and drunk people more than being left alone.

Steinberg (1986) has recently questioned the appropriateness of the outcomes used to assess the impact of self-care on children in previous studies. One of his concerns is with the fact that several of the self-care studies completed to date have used school performance as an outcome measure for an event that does not take place in school. The studies Steinberg has critiqued have concluded that self-care has not been demonstrated to be harmful, on the basis of their findings that there are no differences between children in self-care and children in adult-care on most school performance measures. Despite Steinberg's cautions, it still seems logical to investigate school performance as an outcome variable that might be affected by self-care. Children might experience negative psychological states as a result of self-care that could impair concentration in school and affect overall school performance. If they were in self-care for long periods each day and did not complete homework assignments, that too could diminish school performance.

It is also possible that the self-care experience or characteristics of families that use it might enhance school

performance. Schaefer and Edgerton (1985a, 1985b) have reported on the positive correlation of certain maternal interaction patterns during infancy with children's subsequent academic competence. Academic competence was related, in part, to low maternal scores on external locus of control and to high maternal values for child self-directed behavior. There is some evidence that at least some families choose self-care over other care options in part because they value the opportunity for their children to become more autonomous and independent. For those families, the values that lead to the choice of self-care may be related directly to enhanced, not diminished, school performance.

Schaefer and Edgerton also note that, while maternal locus of control and valuing of child self-directed behavior play a part in determining children's academic achievement, they tend not to be related to social competence and satisfaction. If, in fact, academic competence and social adaptation are independent of one another, it is possible that self-care could affect children's social competence but not their academic performance or vice versa.

In spite of the repeated supposition that self-care may affect children negatively, newly published reports do not find adverse effects. Vandell and Corasaniti (1988) examined social, academic, and emotional functioning among a

group of 150 white third-graders living in a suburban area of Dallas. Three different after-school care settings were studied. These included maternal care, day care and self-care. Vandell and Corasaniti found that children in self-care did not differ from children in maternal care, but that children in day care appeared to be less well-functioning. The authors point out that children who function less well may be placed in day care rather than day care causing lower functioning, although both possibilities should be entertained as researchable hypotheses.

Some research suggests that self-care may have an impact on both social competence and on achievement orientation during and after the years in an educational setting. Werner (1989) recently reported on the results of a 30-year follow-up of a group of individuals who had been born into high-risk family situations and followed from birth. She noted that approximately one-third of these individuals were "resilient", in that they developed into competent, confident, and caring young adults. "Maternal employment and the need to take care of younger siblings contributed to the pronounced autonomy and sense of responsibility noted among the resilient girls, especially in households where the father was absent" (p. 74). Among resilient boys, "Structure, rules, and assigned chores were part of their daily routine in adolescence" (p.74). It is often the case that more is expected of children in self-

care and that parents provide both more structure and more autonomy. These results suggest that some children in high-risk families may indeed experience beneficial outcomes from their self-care experiences.

General Models of Parental Behavior

Ecological Family Research

Bronfenbrenner is well-known for his recommendation that research take into account the variety of social contexts that impinge on family functioning. In his 1986 review and critique of prior family research, he questions the common reliance in the field of family research on simplistic research paradigms. Of the first-level, or "Social Address" models, he condones their use for relatively uncharted research areas, but points out their limited usefulness for delineating family processes. Certainly, one might be justified in considering investigation of patterns of use of self-care a little researched topic. Consequently, the author found it reasonable to include in the models to be tested two variables, race and gender, that are primarily "social address" variables. It was not anticipated that there would be differences in self-care use on these two values, given the sample's homogeneity on socioeconomic status, but the author felt that it was necessary to establish that there indeed were no differences.

Bronfenbrenner goes on to describe the next two levels
of research, asserting that they provide more complete
answers to family research questions. The second-level is
the process-context paradigm, in which the impact of the
external environment on family processes can be assessed.
The third, and highest, level of research described by
Bronfenbrenner is the person-process-context paradigm. For
these models, individual variation is considered to mediate
the effect of family processes and contexts.

Bronfenbrenner gives special approbation to the 1986
study of self-care children by Steinberg, a study using a
person-process context model. He gives Steinberg particular
credit for identifying crucial mediating variables of the
outcomes of self-care that had not been previously
identified when "social address" models had been employed.
Significant variables in the Steinberg study mediating
effects of self-care were the extent of parental monitoring
of children's activities (called "distal supervision" by
Steinberg), gender of the child, and parenting style.
Steinberg's results were subsequently questioned by Rodman,
Pratto, and Nelson (1988) on the basis that Steinberg may
have included in the latchkey category, children who were in
fact not qualified 1) because they were outside the range
of 6 to 13 years or 2) because they may have had parents at
home while the children were "hanging out".

Socioeconomic Status, Parental Values, and Parental Behavior

It has long been established that parental behavior is associated with developmental outcomes for children. It has been argued further, first by Kohn (1963) and then by others seeking to replicate and extend his findings (e.g., Gecas and Nye, 1974), that parental value system differences are associated with class differences. Specifically, parents tend to value in their children characteristics that they themselves find useful in their adult occupational roles. According to Kohn, lower-class families tend to value conformity while middle-class families tend to value independence in their children. Kohn's research also indicated that the relationship between social class and parental values was not substantially modified by race, family size, or sex of the child, among other variables tested.

Luster, Rhoades, and Haas (1989, p. 139) assert that, while the "antecedents of parental values have been extensively studied, little is known about their behavioral correlates." The findings of their study provide further support of Kohn's notion that parental values are associated with social class and, in addition, that the value differences translate into different child-rearing practices.

The implications of these findings for this study are that choice of supervision arrangements for school-age

children is likely to be one of the parental behaviors
influenced by parental values. It has been asserted by this
author earlier in the dissertation that self-care is as
likely to be a child care option associated with maternal
preference as with maternal necessity. If self-care use is
based to a larger extent on parental preference than
necessity, one would anticipate that it would be used by
parents who value independence more than conformity in their
children. Based on the fact that the sample in this study
is homogeneous on socioeconomic status, the author
hypothesized that there would be no differences between
blacks and whites on the variables associated with parental
values (or preferences), as listed in Figure 3 in Chapter
One. If analysis showed this hypothesis to be correct, then
differences in self-care practices should be associated with
parental values, not with race.

CHAPTER THREE

Methodology

Overview

This study tested the research hypotheses listed
previously, using data gathered in the course of a ten-year
longitudinal study of mother-child relationships. Dr. Earl
Schaefer of the School of Public Health at the University of
North Carolina at Chapel Hill is the principal investigator
of that study. The primary goals of the more limited study
described in this dissertation were to describe major
features of the use of school-age self-care among such
families as those in this sample, to propose a model of
parental decision-making with respect to use of self-care as
a caretaking strategy, and to test as many factors suggested
by the proposed model as possible, given the limitations of
the sample and data available.

Information is available from Schaefer's study on a
number of maternal, family, child, and neighborhood
characteristics. Some of the information was collected
prior to the onset of self-care, some was gathered
subsequent to the onset of self-care, and some was gathered
more than once during the course of the study. See Table 1
in Chapter Four for a list of the major variables that were
used in the analyses reported in this study. All
information used in the analyses reported here was obtained
during third-grade maternal interviews or during fourth-

grade child interviews a year later, with the exception of the measure of parental modernity. Data on that variable were obtained during maternal kindergarten interviews.

Sample and Control Group Selection

The sample for the larger longitudinal study was selected in two cohorts in 1975 and 1976. Women in the last trimester of pregnancy who were receiving prenata⌐ care from the Guilford County Public Health Department's prenatal clinics were invited to participate in the study. Those who agreed were interviewed extensively. After delivery, each mother with an uncomplicated labor resulting in the birth of a single healthy newborn was invited to remain with the study. The mothers were then randomly assigned to an experimental or a control group. The experimental group received increased support for mothering in the form of a number of home visits from a public health nurse during the first four postpartum months, while the control group received no special intervention. No stable effects from the experimental intervention have been identified. The original study included 322 mothers and their children, of whom approximately 25% were white and 75% were from a minority ethnic or racial background, primarily black.

In 1981 and 1982 both cohorts were again contacted and data were successfully collected from 74% of the original sample of mothers (N = 237). A majority of the children of

these mothers were in kindergarten at this time and data were also collected from their teachers. During the period from 1984 to 1986, mothers from both cohorts were interviewed and further data from the children's teachers were collected. During the 1985-86 school year, children in Cohort 1 were interviewed and during the 1986-87 school year, children in Cohort 2 were interviewed. Complete data were obtained from approximately 100 families in each cohort, for a total of 201 families.

Data Collection

When the study was initiated ten years ago, data were collected in two cohorts from the pregnant women who agreed to participate. Data from families in Cohort 1 were collected during one academic year and from families in Cohort 2 during the succeeding academic year. This pattern of data collection has persisted throughout the years of the study. For the purposes of this study of self-care, data from Cohorts 1 and 2 were analyzed together. Children were divided into an adult-care and a self-care group based on whether or not the children reported ever having been left alone, or with other children under the age of 14. The self-care group was further divided into sporadic and regular self-care groups based on whether or not the children reported that they had spent time in self-care during the previous three school days or that they usually spent time in self-care each week.

In addition to the extensive information on maternal characteristics collected during the third trimester of pregnancy, mothers were interviewed and observed with their infants at four and twelve months postpartum. Data gathered included information on family structure, history, and environment; maternal stresses and supports; psychological characteristics of the mother; and attitudes toward employment. Mothers were observed while playing with, dressing, feeding, and bathing their babies. The type, frequency, and quality of maternal and infant behavior during these situations were recorded on structured forms by two independent observers. Ratings of the mother's behavior and affect during the entire home visit were completed by each of the two data collectors following each visit. Maternal attachment scores were determined based on the observations and the ratings. Mothers were paid for their participation in the research at each step.

In 1981, when approximately half the children entered kindergarten, mothers were again interviewed and information similar to that previously gathered was obtained. In addition, data from the child's permanent folder were obtained from the school for each child at least twice. The homeroom teacher was asked to describe the child's academic competence and social adjustment each year. Teachers were

paid for their time and have provided ratings on 97% of the children.

Interviews with the children took place during the academic year following the grade-three interviews with their mothers. These interviews took approximately an hour to complete and were scheduled during the instructional day at school. To the extent possible, mother and child interviewers were of the same race as those being interviewed. Prior to the child's interview, permission to conduct the interview was obtained both from the mother and the child.

Design of the Study

The children were asked to report the age of onset of self-care, if it had occurred by the time of the interview. Based on that ex-post-facto report, the children were considered to be in either sporadic or regular self-care or in adult-care. For purposes of the analyses reported here, those self-care groupings have been utilized to define the outcomes of parental decision-making. The two extreme self-care groups (the children who have never been in self-care and those who are regularly in self-care) have been used for most of the analyses related to the research hypotheses.

The sample is one of convenience and there has been considerable attrition since the beginning of the study. This is an obvious disadvantage of this sample, but there are several advantages that outweigh the disadvantages. It

is obviously an advantage to include maternal perceptions
relevant to self-care decision-making that occurred prior to
the age of onset of self-care for most of the children in
the sample (typically age eight and above). The data on
family history over ten years that are available in this
data set are a rich resource that could be explored in
future analyses, and the relevance of the information
collected for the purposes of assessing the antecedents,
correlates, and outcomes of the self-care choice, is
unquestionable. This is a clear example of the need to
balance an increase in internal validity against a loss of
external validity.

The sample and data from this longitudinal study offer
several unique advantages for the study of self- versus
adult-care for school-age children. A great deal of
information concerning family structure, socioeconomic
status, relevant maternal attitudes, maternal perception of
child adaptive behavior, and neighborhood quality is
available and, to a large extent, predates family decisions
about child-care. Many variables are unmeasured and
uncontrolled that might be involved in causing outcomes of
interest. Yet, temporal precedence of significant variables
lends some support to development of causal models that can
be further refined and tested in subsequent, more tightly-

controlled studies. This is a distinct advantage over a cross-sectional design.

The fact that the sample is largely black and was originally low-income is also an advantage. The Working Mother study completed by Rodman (Leishman, 1980) involved a middle-class sample. The Rodman, Pratto and Nelson study (1985) involved a sample matched on socioeconomic characteristics. Little of the meager research in this area completed to date has focused on families from the lower socioeconomic groups represented by the sample used in this study. Some researchers would assume, based on previous studies, that these children may be at risk for developmental and delinquency problems, based on their socioeconomic and minority-group status alone. In light of the concern that self-care may also be associated with similar risks, any evidence to elucidate parental decision-making processes concerning child care is an important contribution to understanding the conditions under which self-care is used by high-risk families.

The Instruments

Copies of the protocols used for the maternal kindergarten and third-grade interviews and the children's fourth-grade interviews are contained in appendices. The version of the children's protocol presented is that used with Cohort 2. The information requested was the same for

both cohorts, but the wording and format were clarified for the benefit of the interviewers.

Most of the variables were measured with single questions, eliminating the possibility of computing such measures of reliability as Cronbach's alpha. In the cases where variables were measured by scales, only the scale score for each case was available to the author, not the original responses to the questions making up the scale. This made it impossible to compute reliabilities for the scales. In some cases, limited psychometric information about the scales has been published by Schaefer. Any information available about the psychometric properties of the scales will be discussed in this chapter as each variable is presented.

The interviews for mothers and children were conducted orally so that reading ability did not limit any subject's opportunity to respond to the questions. All maternal interview items appear to have adequate face validity and comprehensibility. It was difficult to explain to some of the children what was meant by the questions designed to categorize them into self-care groups. It was not uncommon for interviewers to have to follow the original question with a second explanation or further exploratory questions. The extent to which this compromised the validity and reliability of the results is not known. It would have been desirable to obtain corroboration of the children's report

of self-care status from a sample of mothers. This was
considered, but not undertaken, because of the potential to
increase attrition from the sample due to overuse.

Threats to Validity and Procedures
to Control Extraneous Variability

Since the sample is not random, other procedures
have been instituted to control the influence of extraneous
variables. Extensive information was collected on the group
of women who originally constituted the panel of patients in
the prenatal clinic of the Guilford County Health Department
at the time the study group was selected. Information about
the study sample and those who were eligible but did not
participate is reported in Siegel, Bauman, Schaefer,
Saunders, and Ingram (1980).

Efforts to standardize data collection have included:
written interview protocols, interviewer training, and
similar settings for data collection (home for the mothers,
school for the children). However, some aspects of the data
collection procedures could not be standardized. Because of
the limited number of interviewers, maternal and child
interviews were conducted over a 4- to 6-month period of
time. Time of day when interviews were conducted was not
standardized, and there were substantial variations in the
interview settings used within the schools. Some children
were interviewed in less private rooms than others or had to

miss special events or meals while being interviewed.
Finally, there was considerable variation among interviewers
in how thoroughly they explored the children's responses to
the two open-ended self-care questions. Despite these
limitations, the importance of the topic, the lack of other
data about factors involved in the decision to use self-
care, and the opportunity to investigate factors preceding
the use of self-care, support the value of using these data
in secondary analyses.

The author's role in the self-care portion of the study
has been substantial. In collaboration with her advisor,
Dr. Rodman, she developed the self-care questions that were
included in the interview protocol. She interviewed more
than twenty of the children, approximately ten from each
cohort. It was not possible for the author to conduct more
of the child interviews, primarily due to two factors.
First, the study design called for same-race matches between
interviewer and child, eliminating the possiblity that the
white author could interview the 75% of the sample who were
black. Second, several white interviewers had been
participating in the study for several years, interviewing
the children's mothers. These interviewers were given the
opportunity to interview some of the white children during
that phase of data collection.

Collecting and Recording Data

Trained interviewers, all with experience in

interviewing or interacting with children, collected the data. Prior to going to the schools involved, interviewers contacted the principal to arrange for a private space where the interview could be conducted. The space set aside varied from semi-private to private. Children were called out of their classes for approximately one hour to complete the interview. The majority, when asked, said that they had not been informed that they would be interviewed. The children were asked to sign a form giving their consent for participation. The responses from each interview were recorded on an individual interview protocol form which was returned to the Department of Maternal and Child Health in Chapel Hill. For the most part, response options were precoded and entered directly into a computer file by an individual hired for this purpose. The questions about self-care were entered into a separate data file by the author and merged with the primary data set at a later time.

<u>Analysis and Synthesis of the Data</u>

<u>Descriptive Statistics</u>

Standard statistical procedures were conducted to analyze distributions, central tendencies, ranges, and frequencies of the variables in this study. A number of tables were prepared to examine patterns of self-care use by race, gender, and the major variables of interest in this study. The tables present frequencies and percentages for

the categorical variables and means for the continuous variables.

Logit Modeling

The second and third stages of analysis involved the use of logistic regression analysis, also known as logit modeling. This approach was selected because the author wished to predict use or non-use of self-care (a dichotomous outcome) using both categorical and continuous independent variables. Given these characteristics of the variables to be analyzed, the familiar linear probability model is not appropriate, because the assumptions of the linear model are not met. In essence, the use of a standard linear probability model under these circumstances is a misspecification of the relationship between the independent variables and the dependent variable.

The use of logit modeling is becoming more frequent in family studies, but it is not yet common. Perhaps the best description of this approach for social scientists is contained in Aldrich and Nelson (1984). Also useful are the discussions in Chapter 7 of Hanushek and Jackson (1977) and in the work of Maddala (1983). Much of Maddala's work presents applications first designed for use in econometrics, where there is frequent need to predict a dichotomous decision (e.g., to buy or not buy a product) using a mixture of categorical and continuous independent variables.

As Aldrich and Nelson (1984) point out in their excellent discussion of linear probability, logit, and probit models, when the outcome variable is dichotomous, the linear probability model is not BLUE. That is, it does not provide Best, Linear, Unbiased, Efficient estimates of coefficients. The logit, or logistic, regression model assumes that the data follow a logistic distribution curve rather than a straight line. This assumption avoids the main disadvantages that occur when a linear model is applied to a situation where there is a dichotomous outcome.

In addition to a different assumption about the underlying distribution of the dependent variable, the methods used to estimate the coefficients associated with independent variables also differs from the traditional ordinary least squares method. As Aldrich and Nelson note (1984, p. 50-51), "the conceptual difference between OLS (ordinary least squares) and MLE (maximum likelihood estimation) is that OLS is concerned with picking parameter estimates that yield the smallest sum of squared errors in the fit between the model and data, while MLE is concerned with picking parameter estimates that imply the highest probability or likelihood of having obtained the observed sample Y."

LIMDEP Analytic Package

The logit models used in this study were tested using a

statistical package for personal computers called LIMDEP. This program was developed to model decision-making in econometrics, originally in a version for mainframe computers. Subsequently, a simplified version was developed for personal computers. The algorithms and specifications for using the model on personal computers have been published by the author (Greene, 1985).

It is also possible to conduct logit analyses using PROC LOGIST in the SAS package of statistical programs for the social sciences. The procedure is supported by the author and the algorithms and specifications are contained in a publication called The Logist Procedure (Harrell, 1986). The algorithms used in the LIMDEP package and in the SAS PROC LOGIST are identical. Therefore, the results are identical, although the output is presented somewhat differently and there are different sets of options. The author has conducted the analyses using both programs, but the final models (the results of which are presented in this dissertation) were analyzed using LIMDEP.

<center>Testing the Research Hypotheses</center>

Research Hypothesis One

1. Use of self-care will be associated with maternal perception of the fitness of the child and the environment (maternal perception that the child is obedient and independent, few concerns about neighborhood safety, and

increased number of siblings).

This hypothesis was tested by analyzing single-variable prediction models of self-care for blacks and whites. It was also analyzed using a multivariate model including all the independent variables in one model. This model was tested for the full sample and for the black subsample.

2. Use of self-care will be associated with necessity (unmarried mothers, economic straits, few alternative caretakers, maternal employment).

This hypothesis was tested by analyzing single-variable prediction models of self-care for blacks and whites. It was also analyzed using a multivariate model including all the independent variables in one model. This model was tested for the full sample and for the black subsample.

3. Use of self-care will be associated with maternal attitudes (parental modernity, low maternal valuing of conforming behavior on the part of her child, low maternal somatic symptoms, and maternal belief that her working is good for her child,).

This hypothesis was tested by analyzing single-variable prediction models of self-care for blacks and whites. It was also analyzed using a multivariate model including all the independent variables in one model. This model was tested for the full sample and for the black subsample.

4. The subjects in this study are relatively homogeneous on socioeconomic status. Therefore, even though

the sample contains black and white subjects, there will be no differences between black and white families in the study with respect to use of self-care, family income, maternal education, and other variables of interest.

This hypothesis was tested by using chi-square analysis for the categorical variables and analysis of variance for the continuous variables. The primary purpose of this analysis was to determine whether the assumption that this sample was homogeneous on such major demographic variables as family income, maternal education, maternal employment status, and use of self-care was tenable. If the assumption was tenable, then it would not be necessary to conduct separate analyses for blacks and whites.

The assumption proved to be untenable on several major variables (see Chapter Four for greater detail), so further analyses were conducted in such a way as to examine the differences between the black and white subsamples as fully as possible, given the limitations of sample and subsample size.

5. Use of self-care will be associated with male gender.

This hypothesis was tested by conducting a single-variable logistic regression analysis with gender as the independent variable and self-care as the dependent variable for the full sample and the two subsamples. The results

indicated that gender was a significant predictor (in the
hypothesized direction) of self-care for blacks, but not for
whites.

6. When the variables identified as significant in the
preliminary analyses are entered into composite prediction
models, the models will have increased ability to correctly
predict use or non-use of self-care.

Six variables from the four full-sample preliminary
models were significantly related to use of self-care.
Research hypothesis six was tested by including these six
variables in a single composite prediction model for the
full sample.

A second composite prediction model was tested for the
black subsample, using in a single composite model the four
predictors that had been shown to be related to use of self-
care during the testing of preliminary models.

Two three-variable composite prediction models were
tested for the white subsample. First, the three variables
that had been shown to be significantly related to use of
self-care based on the single-variable logistic-regression
prediction models were entered into a single, composite
prediction model. Second, the three variables that had been
shown to be significantly related to use of self-care based
on the single-variable logistic-regression prediction models
for blacks were tested together in a single composite three-
variable prediction model for whites. The results of these

three-variable models for whites are presented in Chapter

Four (Table 28). However, the sample size of 29 is much

smaller than it should be to analyze a three-variable model.

Therefore, interpretations of the results were made with

extreme caution.

Variables

See Apendix A for a copy of the protocol used

during the interviews with children. Appendix B

contains the protocol used for the maternal kindergarten

interview, and Appendix C contains the protocol used for the

maternal third-grade interview. There was some variability

in the protocols between cohorts 1 and 2 for each interview

period, but only variables that were gathered in essentially

the same way for both cohorts were included in the analyses.

Table 1 contains a list of variables, minimum and maximum

values for each, means and standard deviations for the full

sample, for blacks only, and for whites only.

Self-Care: Dependent Variable, Grouping Variable, and

Descriptive Variable

During the interviews with the children in Cohorts 1

and 2 that took place during 1985-87, the children were

asked to provide information on the following: 1. their

age when they began caring for themselves without direct

adult supervision, if they had done so by that point in

time, 2. for those in regular self-care, the amount of time

spent caring for themselves, 3. whether there were children present and their age(s), if present, 4. whether adults supervised them in any way when the adults were away, and 5. how adults supervised the children when the adults were away.

Dependent Variable (SELFNEW AND NSELFNEW)

SELFNEW is a three-level variable representing children who have never been in self-care, those who are in self-care only sporadically, and those who are in self-care regularly. The three self-care levels were formed in the following way:

1. children who reported that they had never been left without a caretaker over the age of thirteen were assigned to level one.

2. Children who reported at least one episode of self-care of five minutes duration, but who did not report time in self-care during the previous three school days, were assigned to level two.

3. Children who reported five minutes or more in self-care during the previous three school days were assigned to level three. Descriptive results for all three levels are presented in Chapter Four. For the logistic regression analyses, levels one and three of SELFNEW were re-coded as 0 and 1. The variable was renamed NSELFNEW.

Time in Self-care (STIMTOTB)

The children who reported that they had spent time in self-care during the three previous school days (equivalent

to a code of 1 on NSELFNEW), were asked how much time they had spent in self-care during those three days before school, after school, and in the evening. The time given for each period was converted into minutes and totaled for the three time periods over the three days to form the variable STIMTOTB. A few of the children indicated that they had been left in self-care on a weekday that normally would have been a schoolday for them, but was not for some reason. Reasons given included student illness, teacher work days, or snow days. Wherever possible, the interviewer and/or the author attempted to determine the normal pattern of self-care on a schoolday and to use those adjusted figures to calculate the hours of self-care for that child.

Age of Child When First Left in Self-Care (AGE)

The children who indicated that they had been left in self-care on any occasion were asked at what age they first had been left in self-care. Their answers were recorded in one-year increments.

Mother's Education (Y3MOEDU)

Mothers in the study were asked during the third-grade interview how many years of education they had completed. Their answers were recorded in one-year intervals. Unfortunately, this variable had a great deal of missing data: only 140 mothers in the total sample of 191 gave the necessary information. Therefore, this variable was used

only for descriptive purposes and not in the logistic regression models, as originally planned.

Mother's Employment Status (Y3WORKNG)

During the third-grade interview, mothers were asked whether they worked fulltime, parttime, or not at all. Their answers were assigned a code of 3, 2, or 1 respectively.

Family Income (Y3INCOME)

Mothers were asked to indicate what their family income was, either on a yearly basis or on an equivalent monthly basis, using a 7-level response set ranging from low (1) to high (7). The levels and their annual ranges were:

1 = less than $3,000 annual income

2 = $3,001 to $5,000 annual income

3 = $5,001 to $10,000 annual income

4 = $10,001 to $15,000 annual income

5 = $15,001 to $20,000 annual income

6 = $20,001 to $30,000 annual income

7 = over $30,000 annual income

Maternal Marital Status (Y3MARST)

In the original questionnaire, marital status was a 5-level variable that included never married, married, separated, divorced, and widowed. The author decided to re-code these levels into a married (1)/not-married (2) dichotomy. The information that would have been most helpful for the analyses conducted for this study would have

been the presence or absence in the household of an adult

partner of the mother. This information, coupled with

knowledge of marital status, might have shed light on the

role of husbands versus other adults in providing

supervision for school-age children. In the absence of the

data to permit this type of analysis, the author decided

that the four marital status distinctions were unlikely to

provide useful information. In addition, the numbers in the

categories other than not-married or married were so small

that more detailed categorization would not contribute to

meaningful analyses.

Number of People in the Household (Y3PEOPLE)

Mothers were asked to report the total number of

individuals living in the household. This figure includes

the mother, the index child, and any other adults or

children living in the household. Mothers were asked to

report their marital status and were asked how many siblings

of the index child lived in the home. There was no attempt

to determine other relationships among household residents.

The three variables -- number of people living in the

household, number of siblings present, and marital status --

are obviously somewhat correlated with one another. The

Pearson correlation coefficients were highest between

the number of people in the household and the number of

siblings in the household, ranging between 0.7 and 0.8 for

the full sample and the black and white subsamples. The lowest correlation was between Y3MARST and Y3SIBS, ranging between 0.1 and 0.3 for the various samples. The correlations between Y3MARST and Y3PEOPLE ranged between 0.2 and 0.4. The strong correlation between the number of people in the household and the number of siblings of the index child suggests that most households had a similar number of adult members. Once the number of siblings is known, the number of people in the household is very likely to be approximately two more than that.

The degree of correlation among the variables was a matter of some concern for several reasons. First, each variable was potentially a proxy for a measure of number of additional caretakers over age thirteen who might be available to supervise the nine- and ten-year-old children in the study. Each variable offered some, but not all, of the information that would have been helpful. The mathematical properties of variables that are highly correlated make it undesirable to enter both into regression equations at the same time. It was necessary to make some judgments about the effectiveness of each variable in addressing the caretaker issue, while avoiding the mathematical complications to the extent possible. In the preliminary models tested (see discussion below), the author entered Y3MARST and Y3PEOPLE into the "Necessity" prediction model at the same time, because their correlation was not

high enough to be of concern. Y3PEOPLE and Y3SIBS were not entered into the same equation. Despite the extensive overlap in information conveyed by these two variables, the patterns of association with use of self-care for blacks and whites was different (see Chapters Four and Five for further discussion of these differences).

Family Economic Well-Being (Y3ECONST)

    This variable was formed by dividing the seven-level "family income" variable by the nine-level "number in household" variable. The resulting variable was a measure of per capita income, ranging from 0.11 to 3.0, with higher values representing higher per capita income. Correlations between this variable and the two from which it was formed were high enough that the author decided not to enter all three into the same regression equation.

Number of Index Child's Siblings (Y3SIBS)

    The range for Y3SIBS was 0 to 9. The question was phrased to elicit the number of siblings of the index child who were living in the home.

Maternal Concerns About Safety of Neighborhood (Y3NBORSAFE)

    This variable was derived from a single question focused on maternal concerns about neighborhood safety, that was embedded in a series of questions about other potential maternal concerns. The responses ranged from 1 (indicating no concern) to 4 (indicating a high level of concern).

Maternal Belief That Her Working is Good for Child (Y3GD4KID)

The author wished to include maternal attitude toward work in the analysis, assuming that mothers who felt positive toward their work would also feel positive about use of self-care. The single question from which this variable is formed questions the mother on the amount of work that is best for her child. Response options include: 1 (none), 2 (parttime), and 3 (fulltime).

Maternal Perception of Child's Obedience (Y3RCBOBE)

This variable has a range from 1 to 4 and is based on maternal responses to five questions about the degree to which her child is obedient (see Appendix C, Report of Child Behavior). Mothers were asked to respond to each question with one of four possible responses indicating the degree to which the behavior described was like their child: 1 (not at all like), 2 (very little like), 3 (somewhat like), and 4 (very much like). The numbers associated with each response were summed, then divided by four to give the score on Y3RCBOBE.

Schaefer has reported (1987) that this scale has an internal consistency reliability of 0.82, as calculated by Cronbach's alpha. This measure of reliability was computed on the basis of responses from 112 mothers in Cohort One of this study.

Maternal Perception of Child's Independence (Y3CABIND)

The same procedure was followed for the five questions from the same section that were related to the mother's perception of the child's independence. The range of this variable is 1.6 to 4, indicating that no mother rated her child at level 1 for all five questions.

Schaefer has reported (1987) that this scale has an internal consistency reliability of 0.55, as calculated by Cronbach's alpha. This measure of reliability was computed on the basis of responses from 112 mothers in Cohort One of this study.

Maternal Somatic Symptoms (Y3SOMAT)

This variable was derived from fifteen questions asking about the mother's level of psychosomatic symptoms of anxiety during the last month (see Appendix C, Section U). Each question offered a symptom, e.g. "During the last month have you been troubled by sweaty hands?" Each question had four possible responses: 1 (never), 2 (rarely), 3 (sometimes), and 4 (often). All responses were summed, then divided by 4. The range for this variable is 1 to 3.4, indicating that no mother gave the highest-level response to every item. Nonetheless, a value of 3.4 on this variable would represent a very high level of psychosomatic anxiety.

Schaefer (1987) has reported the results of reliability calculations on Y3SOMAT, using a subsample of 51 mothers in the longitudinal study who reported intact marriages between

the kindergarten and third-grade maternal interviews. This
subsample was obviously not representative of the sample
used in this study, because the majority of the mothers in
this study were not married. However, the author has no
reason to believe that test-retest reliability of Y3SOMAT
for the sample used in this study would be substantially
different from Schaefer's reported reliability of 0.64.

Maternal Parental Modernity (YKPMTOT)

This variable was formed from the algebraic sum of
three subscales, parental conformity values, parental self-
directing values, and social conforming values. One of
these subscales, parental self-directing values, has a
positive relationship with the construct and two have a
negative relationship with the construct. The range of the
variable is -1.7 to 2.9.

To administer this instrument, three sets of five cards
each were prepared. Each card contained a quality that the
mother might think would be important for her child to
acquire. In each set, two of the items were related to
conformity, two to self-directing values, and one to social
conformity. Mothers were asked to arrange the set of cards
in order, with the most important child characteristic
ordered first and the least important ordered last. They
completed this task for the remaining two sets of five
cards. Values were assigned to each characteristic, with 5

indicating "most important" and 1 indicating "least important." Each subscale, composed of maternal ordering of three cards, was calculated by adding the three values together, then dividing by 3. Parental modernity was derived by taking the algebraic sum of the five subscales. Schaefer and Edgerton (1985) report test-retest reliability for this measure varies between 0.60 and 0.64.

<u>Maternal Valuing of Child's Conforming Behavior (Y3CNFORM)</u>

This variable is one of the three subscales of the parental modernity construct. It has a range from 1.5 (least important) to 4.5 (most important). It was correlated to some extent with the parental modernity scale of which it is a subscale, particularly for the white subsample ($r = 0.7$). The correlation is much lower for the full sample ($r = 0.5$) and the black subsample ($r = 0.3$). Prior research has suggested that conformity differentiates parenting style between socioeconomic status levels, so it was of theoretical interest to include this variable as well as the overall construct.

CHAPTER FOUR

Results

Several research issues related to family use of self-care for school-age children were addressed by this study. First, the nine- and ten-year-old children provided descriptive information about their families' use of self-care. Second, four preliminary explanatory models of use of self-care were proposed and tested. Third, an empirically-derived composite model of use of self-care was proposed and tested. The results of these analyses are presented in this chapter.

Description of the Sample

Information on their self-care status was successfully collected from 199 of the 202 children who were interviewed during the 1985-1987 data collection period. Of the 199 children, one child's reported time in self-care was 4 standard deviations above the mean and 1.2 standard deviations above the next highest reported time in self-care. This child also reported that this was different from the usual self-care arrangement. The author chose to eliminate this case from all analyses because of the chance that the extremely high reported time in self-care would unreasonably distort the results and because it was not possible to determine the usual time in self-care for this

child. Seven of the mothers in the sample did not provide
complete information on all the independent variables of
interest.

Two approaches to analysis were used. First,
the seven cases with missing data were eliminated from the
sample and the resulting sample of 191 was analyzed.
Second, the sample of 198 was used, substituting group means
where missing values occurred. There were only minor
differences in the results and the author has chosen to
present the results of the analyses completed on the sample
of 191. One hundred forty-eight of those sampled were black
and 43 were white.

The sample on which these analyses were conducted was
one of convenience, making it difficult to state that it is
representative of any particular population. However, there
is little reason to believe that attrition from the original
sample of 322 women has changed its nature substantially on
such major demographic characteristics as race and gender of
the child. The proportions of black and white women in the
sample have remained unchanged, as has the gender of the
children.

Probably the best approach to determining the nature of
the families in this study is to describe carefully the
characteristics of the sample. Descriptive statistics on
some of the variables of interest appear in Table 1. The
data on all variables listed in this table were collected

Table 1: Descriptive Statistics on Selected Variables for
          the Full Sample, for Blacks, and for Whites

Variable	Min.	Max.	Mean Std. Dev. (FULL) N=191	Mean Std. Dev. (BLACKS) N=148	Mean Std. Dev. (WHITES) N=43
Y3WORKNG	1	3			
Y3INCOME	1	7	3.3 1.80	3.0 1.64	4.2 2.02
Y3MARST	1	2			
Y3ECONST	.11	3.0	.87 .55	.80 .50	1.07 .65
Y3PEOPLE	2	9	4.3 1.6	4.2 1.6	4.3 1.3
Y3SIBS	0	7	1.7 1.40	1.7 1.5	1.6 .90
NBORSAFE	1	4	1.8 .95	1.9 1.0	1.7 .71
Y3GD4KID	1	3			
Y3RCBOBE	1	4	3.2 .56	3.2 .56	3.1 .55
Y3CABIND	1.6	4	3.4 .49	3.4 .50	3.4 .48
Y3SOMAT	1	3.4	1.9 .55	1.9 .53	2.0 .63
Y3CNFORM	1.5	4.5	2.7 .59	2.6 .51	3.1 .66
YKPMTOT	-1.7	2.9	.29 .85	.14 .72	.79 1.07
STIMTOTB	5.0	690	203 171 (n=62)	238 184 (n=45)	118 97 (n=17)

during the third-grade maternal interviews, with the exception of parental modernity, which was collected during the kindergarten maternal interviews.

Educational Level

This variable is coded by the number of years of education reported by the mother. The minimum reported number was 7 years and the maximum was 16 years. As a total group, the mothers in this sample had a mean educational level (Y3MOEDU) of 11.5 years. The black mothers averaged nearly one full year more education than the whites. A majority of both groups have completed high school, but only a small proportion have gone on for further education. A large minority have not completed high school, lowering the general educational level of the entire sample. Unfortunately, information on educational level was available for only 140 of the 191 women in the sample.

Employment Status, Income, and Marital Status

Employment status was coded as 1 if mothers were not working at all, 2 if they worked part-time, and 3 if they worked full-time. Both black and white mothers were equally likely to be working (Y3WORKNG) but mean family income (Y3INCOME) among blacks was substantially lower than for whites. Income was coded on a 7-point scale with the following ranges: 1 = less than $3,000 yearly income; 2 = $3,001 to $5,000 yearly income; 3 = $5,001 to 10,000 yearly

income; 4 = $10,001 to $15,000 yearly income; 5 = $15,001 to $20,000 yearly income; 6 = $20,001 to $30,000 yearly income; and 7 = over $30,000 yearly income. The mean yearly income for blacks fell in level 3, the $5,000 to $10,000 range and the mean income for whites fell in level 4, the $10,000 to $15,000 range.

Marital status was coded 1 if the mother was married and 2 if she was unmarried. White mothers were far more likely to be married (Y3MARST) than black mothers (65% versus 28%), but the number of people in the household and the number of siblings present were approximately equal for blacks and whites. Several inferences about household membership would be consistent with this data: 1) there might have been additional children present who were not siblings of the index child, or 2) there might be non-maternal relatives in the household, or 3) there might be unrelated adults in the household. Under conditions 2 and 3, there could be approximately equivalent proportions of adults and children present in black and white households, but the households might differ from one another on a number of important dimensions. For example, some of the possible explanations for the family income discrepancy between blacks and whites might be related to such differences. There might be higher unemployment or lower wages among the non-maternal adults in the black households (who might be female as well), lower-paying jobs for the black mothers in

the sample, or diminished contributions to family income on the part of adult wage earners living in black households.

Economic Well-being

A measure of economic well-being (Y3ECONST) was constructed by dividing family income category (Y3INCOME) by number of people in the household (Y3PEOPLE). The number of people in the household was coded from 2 to 8 to correspond with the number of people in the household. The coding "9" referred to 9 or more people. The mean value for whites on this measure (1.07) was substantially higher than the mean value for blacks (.80). Although it is difficult to convert these values into intuitively meaningful dollar amounts, if one makes the assumption that family incomes are evenly distributed over the income categories, it suggests that blacks have a mean income of approximately $2400 per person and whites have a mean income of approximately $3140 per person. This represents a substantial difference, particularly in light of the higher educational achievement of the black mothers.

Neighborhood Safety Concerns

Responses to the question about concerns for neighborhood safety were coded 1 if the mother was not at all bothered, 2 if she was a little bothered, 3 if she was somewhat bothered, and 4 if she was bothered a great deal. Black mothers were slightly more likely than white mothers

to report concerns about neighborhood safety (NBORSAFE), but
in general all mothers sampled seemed little concerned about
the safety of their environment. The total sample mean of
1.8 falls below the level of 2, "a little bothered".
Seventy-five percent of the black mothers and ninety-one
percent of the white mothers gave responses of one or two on
this measure.

Employment Level Best For Child

The mean value of 2.2 on the question of whether it is
better for one's child for mother to stay at home (1), work
part time (2), or work full time (3) (Y3GD4KID) accurately
conveys the fact that the largest group of mothers in each
racial group favored part time work over either of the other
two options. However, black mothers were more than twice as
likely to believe that full time work was good for their
child than were white mothers (38% versus 16%). Most
mothers in this sample, both black and white, were either
not working at all, or were working full time. White
mothers in the sample were slightly more likely to be
unemployed or employed part time than were black mothers.
In any case, both groups have chosen part time work as the
best option for children by large margins, representing a
large discrepancy between what they see as the ideal
situation and the reality of their lives.

Maternal Perceptions of Obedience and Independence

These variables are the result of summing maternal responses to a number of items. In the case of obedience, the range of values extends from 1 to 4 and in the case of independence, the range is from 1.6 to 4. In both cases, high values indicate high perceived obedience or independence. Black and white mothers in the sample perceived their children to be equally obedient and independent, with the mean value on perceived independence slightly higher than that on obedience. On both variables, maternal perceptions of children's levels of obedience and independence were rather high, with the means much closer to the upper than the lower end of the scale. The distribution of both variables was substantially negatively skewed (-0.75 and -0.71, respectively).

Maternal Somatic Symptoms, Conforming Values, and Parental Modernity

Information about three attitudinal variables thought to be related to use of self-care were included in this study. Mothers were asked to report incidence of somatic symptoms consistent with anxiety (Y3SOMAT). Mean values on this variable were very similar for blacks and whites. Maternal somatic symptoms range from a low score of 1 to a high of 3.4. The distribution of this variable was positively skewed both for blacks and whites (0.40 and 0.77 respectively). The mean and median were quite close,

suggesting that the mean was a good measure of central tendency for this variable.

The extent of the mother's valuing of conforming behavior on the part of her child was assessed (Y3CNFORM). The mean value on this variable for white mothers was somewhat higher than the mean value for black mothers. Maternal conforming values is one of 3 subscales of the parental modernity measure. The correlation between these two variables for the whole group is .48, meaning that high values on one are moderately associated with high values on the other. Despite this correlation, Y3CNFORM was entered into a preliminary "Maternal Attitudes" prediction model because of its potential contribution to the prediction of use of self-care, independent of parental modernity. The range of values for Y3CNFORM goes from a low of 1.5 to a high of 4.5. The distribution of this variable was quite different for the two subsamples. The distribution of values on this variable for the black subsample was positively skewed (0.50), but very slightly negatively skewed (-0.16) for the white subsample.

The biggest difference between white and black mothers was on parental modernity (YKPMTOT). Two slightly different versions of this measure were obtained at the kindergarten interview and at the third grade interview. The author decided to use the kindergarten version because that version

was somewhat better standardized, because an attitudinal variable like parental modernity is likely to be stable, and because it clearly preceded the use of self-care for most of the children.   Parental modernity ranges from -1.7 to 2.9. The distribution of values on this variable for the black subsample was positively skewed (0.45). Among the white subsample, the distribution was only slightly positively skewed (0.11).

Variables Measuring Use of Self-Care

There are three major variables measuring the use of self-care by the 191 families in the study. The first, SELFNEW, addresses whether families do not use self-care (1), use it only sporadically (2), or use it regularly on school days (3). The second, AGE, measures the age, in years, at which children report first self-care, either regular or sporadic. The values reported by the children for this variable range from 1 year of age to ten years of age. The third, STIMTOTB, measures the amount of time in self-care reported by the children in regular self-care (SELFNEW level 3).

There were large differences between black families and white families in the study on these three variables. The results suggest that there are distinct variations in patterns of use of self-care that are based on race. These differences are discussed below.

<u>Dependent Variable</u>

A version of SELFNEW (NSELFNEW) is the primary dependent variable used in this study. SELFNEW was measured by asking the children whether they had ever been left at home without an adult caretaker. Based on their responses, the children were assigned to one of three possible levels of self-care. (See Table 2 for a summary of self-care levels by race and by gender among the children in the study.) Sixty-seven children (35% of the total sample of 191) who reported that they had never been left under these circumstances were assigned to level one. Sixty-two children (32% of the total) who reported that they had been left on one or more occasions, but not regularly, and not in the last three school days, were assigned to level 2. Sixty-two children (32%) who reported that they had been left for five minutes or more during the past three school days and/or that they usually were left for some time each week without a caretaker over 13, were assigned to level 3.

A dichotomous outcome variable, level of self-care (NSELFNEW), was composed of levels 1 and 3 of SELFNEW. The 62 children from level 2 of SELFNEW were eliminated from the analysis because they reported some use of self-care, but not regular self-care. The author wanted to distinguish as clearly as possible between self-care and non-self-care groups for this analysis.

Table 2: Self-Care Status of Children by Race and By Gender

	Black			White			
	Boys	Girls		Boys	Girls		

Freq.
Pct.
Row Pct.
Col. Pct.

Selfcare Status	Boys	Girls	Sub-Total	Boys	Girls	Sub-Total	Grand Total
Never	21	36	57	4	6	10	67
	0.14	0.24		0.09	0.14		
	0.37	0.63		0.40	0.60		
	0.28	0.50	0.39	0.18	0.29	0.23	
Sporadic	26	22	48	9	5	14	62
	0.18	0.15		0.21	0.12		
	0.54	0.46		0.64	0.36		
	0.34	0.31	0.32	0.41	0.24	0.33	
Regular	29	14	43	9	10	19	62
	0.20	0.10		0.21	0.23		
	0.68	0.33		0.47	0.53		
	0.38	0.19	0.29	0.41	0.48	0.44	
Total	76	72	148	22	21	43	191
	0.51	0.49	1.00	0.51	0.49	1.00	

Age at First Self-Care

The age of eight has been widely mentioned as a time when occasional experiences of self-care typically begin for children. The results of this study corroborate that belief. As can be seen in Table 3, a large number of children report that they first began self-care at the age of eight. Thirty-nine percent of the entire sample of 191 reported that they had been in self-care on some occasion by the age of eight. Seventeen percent of these children began self-care before the age of eight, but 22% began during their eighth year and another 24% began during their ninth year.

Within these overall group percentages, the patterns for blacks and whites were somewhat different from one another, but most of the difference between groups was due to the lower rate of self-care among black girls. Among whites, 42% of the boys and 44% of the girls had begun self-care by the age of eight. Forty-six percent of black boys reported having been in self-care on at least one occasion by the age of eight. In striking contrast, only 28% of black girls reported having been in self-care by age eight.

A somewhat larger group of white children than black children, (23% vs. 14%) reported having initiated self-care before the age of 8. No black children reported first self-care before the age of 4, but 3 white girls reported self-care beginning in infancy.

Table 3: Age of First Self-Care by Race and Gender

Age of First Self-Care

	1	2	3	4	5	6	7	8	9	10	Total Self-Care	Total Child.

Black

Boys	0	0	0	1	1	3	8	22	19	1	55	76
Pct.				.01	.01	.04	.11	.29	.25	.01	.72	
Cum. Pct.					.02	.06	.17	.46	.71	.72		
Girls	0	0	0	0	1	3	4	12	12	4	36	72
Pct.					.01	.04	.06	.17	.17	.06	.50	
Cum. Pct.						.05	.11	.28	.45	.51		
Total	0	0	0	1	2	6	12	34	31	5	91	148
Pct.				.01	.01	.04	.08	.23	.21	.03	.61	
Cum. Pct.					.02	.06	.14	.37	.58	.61		

White

Boys	0	0	0	0	1	3	1	4	9	0	18	22
Pct.					.05	.14	.05	.18	.41		.82	
Cum. Pct.						.19	.24	.42	.83			
Girls	2	1	0	0	0	1	1	4	6	0	15	21
Pct.	.10	.05				.05	.05	.19	.29		.71	
Cum. Pct.		.15				.20	.25	.44	.73			
Total	2	1	0	0	1	4	2	8	15	0	33	43
Pct.	.05	.02			.02	.09	.05	.19	.35		.77	
Cum. Pct.		.07			.09	.18	.23	.42	.77			

Total Sample

Total	2	1	0	1	3	10	14	42	46	5	124	191
Pct.	.01	.01		.01	.02	.05	.07	.22	.24	.03	.65	
Cum. Pct.		.02	.02	.03	.05	.10	.17	.39	.63	.66		

The differential lack of self-care for black girls was also evident among the group of 62 children who reported regular self-care. As can be seen in Table 2, only 19% of black girls reported regular self-care while 38% of black boys, 41% of white boys and 48% of white girls reported regular self-care. Overall, twenty-nine percent of the black children reported regular self-care while 44% of the white children reported regular self-care. Conversely, 39% of the black children (28% of the boys and 50% of the girls) reported that they have never been in self-care while only 23% of the white children (18% of the boys and 29% of the girls) stateed that they had never been left in self-care.

Time in Self-Care

The third variable of interest in describing patterns of self-care in this sample is the amount of time in self-care over the previous three school days (STIMTOTB). The children's responses were coded in minutes and ranged from 5 to 690 minutes over the previous three school days. Mean time in self-care by race and by gender is presented in Table 4.

For this analysis, only the 62 children who were assigned to self-care level 3 (regular) were considered for inclusion. That is, they had spent five minutes or more in self-care over the previous three school days. One child's response indicated that she was in regular self-care, but it

Table 4: Mean Time in Self-Care by Race and By Gender

	BLACK						Total Sample
	Boys	Girls	Sub Total	Boys	Girls	Sub Total	
N	29	14	43	9	9	18	61
Mean/3 Days (Minutes)	258	196	238	84	152	118	203
Std. Dev.	196	154	184	75	106	97	171
Median	270	165	270	60	120	60	180
Mean/Day (Minutes)	86	65	79	28	52	40	68
Std. Dev.	65	51	61	25	35	32	57
Median	90	55	90	20	40	20	60

was not possible to determine the amount of time with accuracy, so mean time in self-care was calculated on the basis of the 61 responses with interpretable information.

There were large differences in the amount of time in self-care reported by black and white children, with the black children reporting significantly longer periods of time in self-care. This discrepancy is surprising, given the much lower rates of use of regular self-care among blacks. The mean time reported for the entire group of 61 children over three days was 203 minutes, (or 68 minutes per day), with a standard deviation of 171 minutes. Among the 43 black children assigned to self-care level 3, the mean time in self-care was 238 minutes (or 79 minutes per day), with a standard deviation of 184 minutes. Among the 19 white children assigned to self-care level 3, mean time spent over three days was 118 minutes (or 40 minutes a day), with a standard deviation of 97 minutes. The median time in self-care during three days for the entire sample was 180 minutes, considerably below the mean.

Black children's average time in self-care was approximately twice that of white children. On average, black boys spent three times as long per day in self-care as white boys. The differences are quite substantial, although small sample size, especially among whites, demands extreme caution in interpreting these results.

Closer inspection of the time in self-care reported by black boys shows that six boys reported times between 400 and 700 minutes over the past three school days. This represented 21% of all black boys assigned to self-care level 3. Only one other child assigned to self-care level 3, a black girl, reported time in self-care above 400 minutes over three days. Graphs 1 and 2 illustrate the distribution of time in self-care by race and gender. Time in self-care has been calculated in 30-minute intervals on a daily basis. The graphs make it clear that the amount of time in self-care reported by these seven children represents a substantially different pattern from the rest of the children in regular self-care. Even though the small number of cases of black boys in self-care for long periods of time does not warrant firm conclusions, differences between this subgroup and the full black sample on several variables are worth noting.

One might expect that leaving children for extended periods of time would be associated with full-time employment. For the six boys mentioned above, only one (17%) of the mothers was employed full-time. Three mothers were employed part-time and two mothers were not employed. Among all black mothers using self-care regularly, 54% were employed full-time.

The mothers of the six boys were less likely to be married than other black mothers using self-care regularly

Graph 1: Daily Time in Self—Care

Frequency for Black Boys

Minutes per Day in Self—Care

Frequency for Black Girls

Minutes per Day in Self—Care
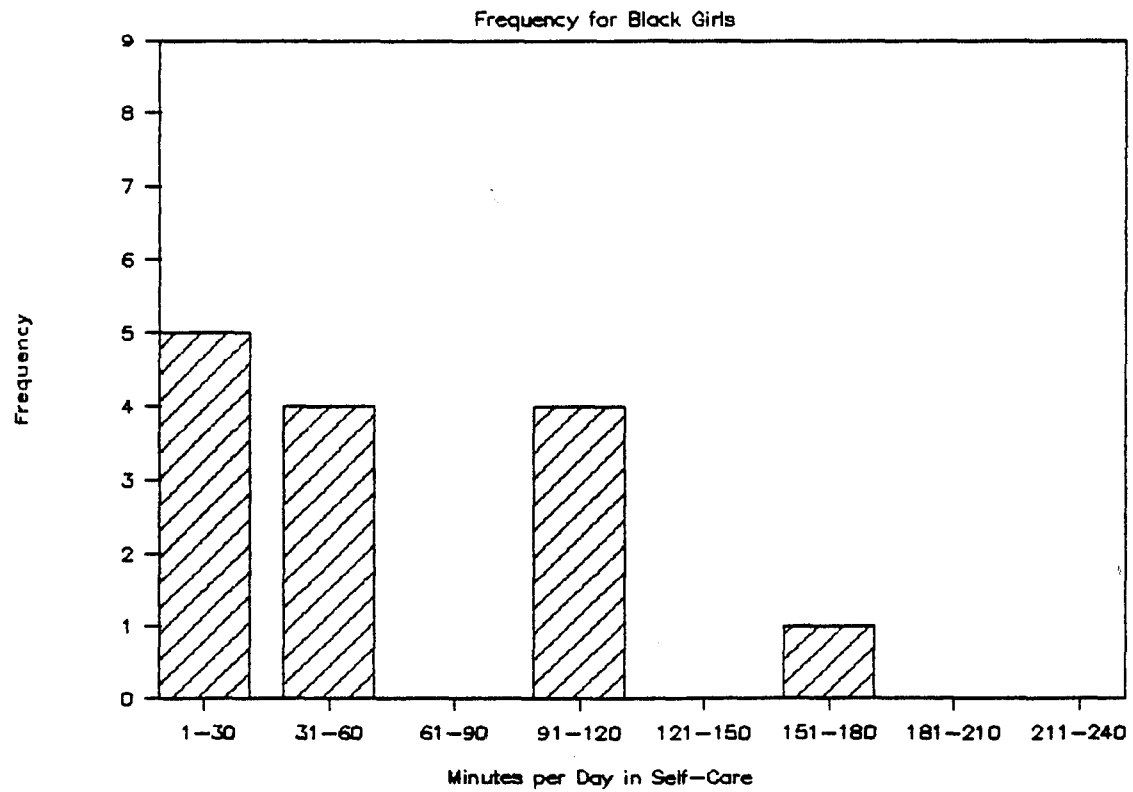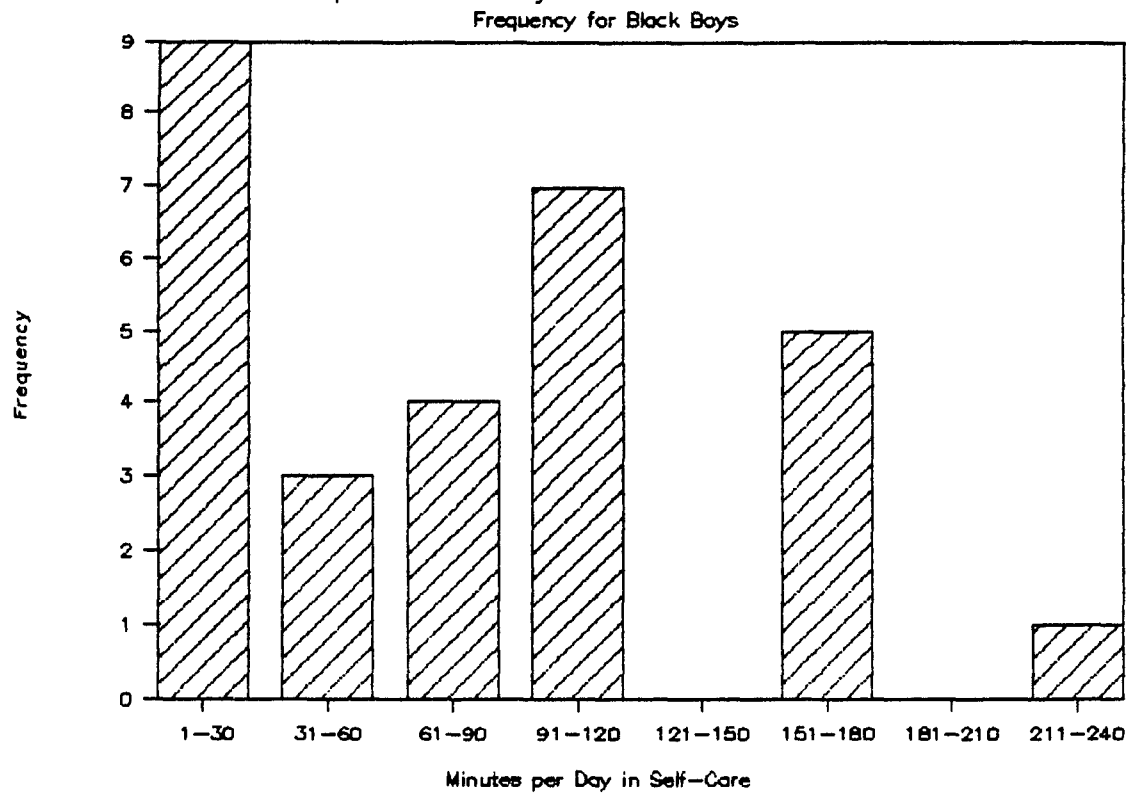
Graph 2: Daily Time in Self—Care

Frequency for White Boys

Minutes per Day in Self—Care

Frequency for White Girls

Minutes per Day in Self—Care
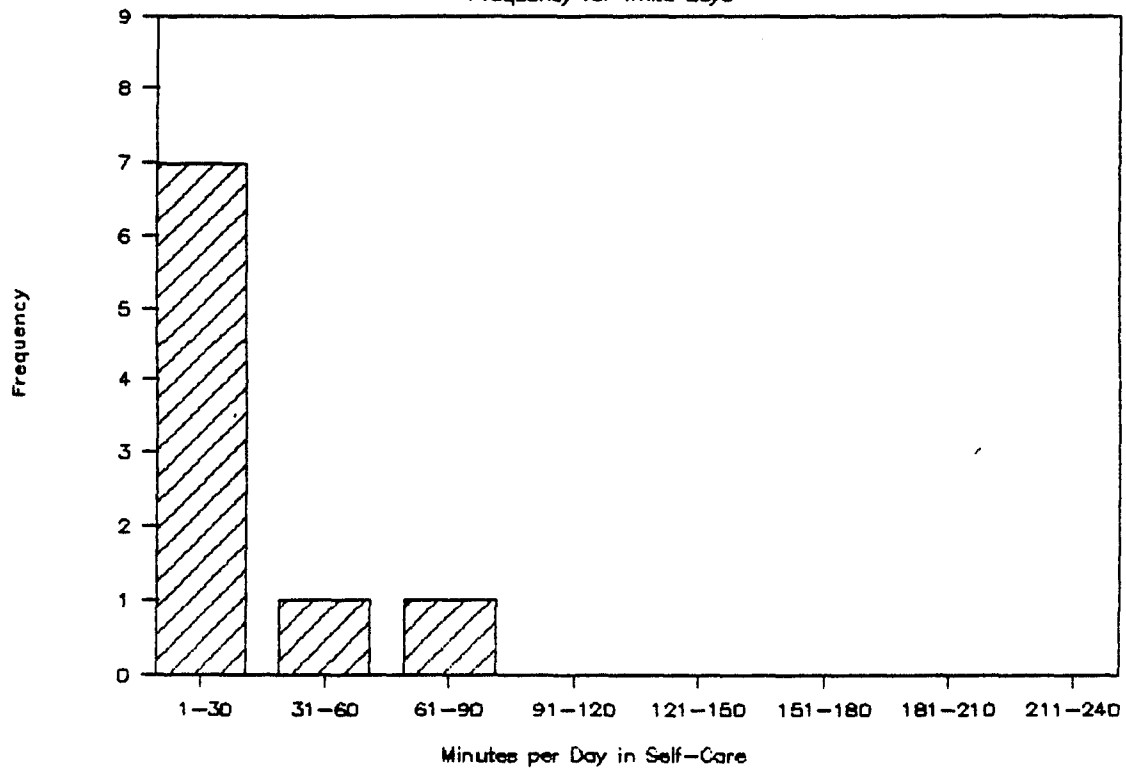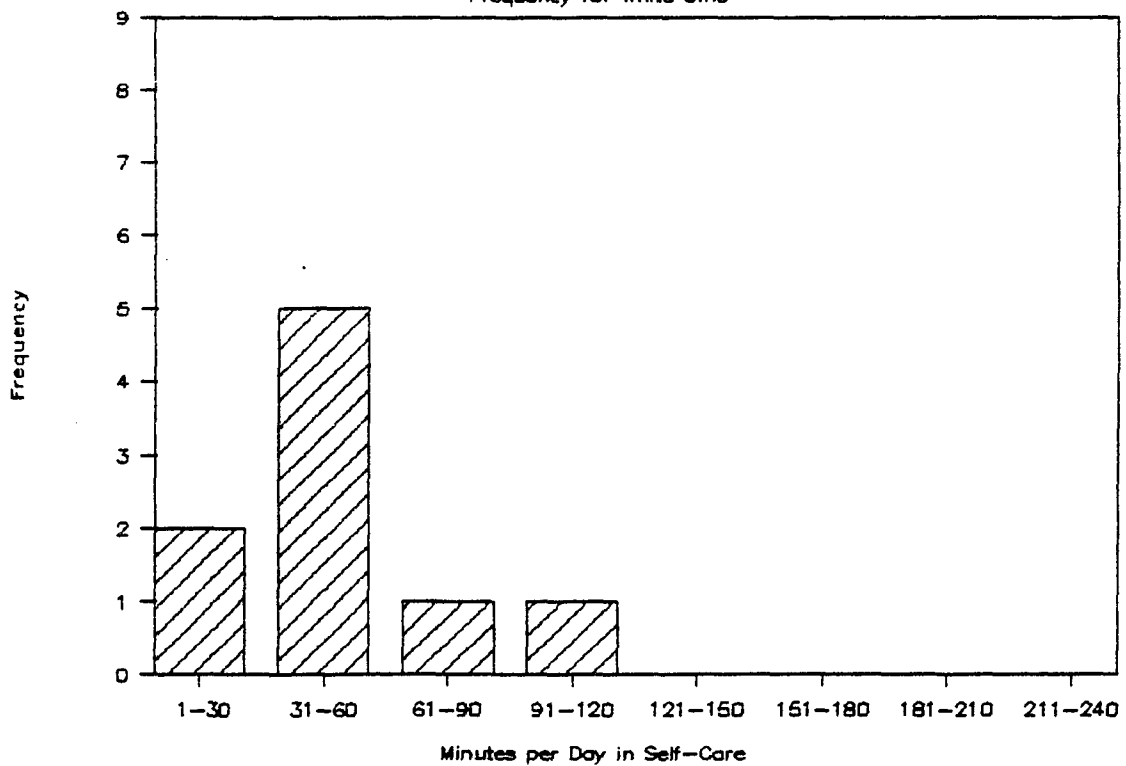
(17% vs. 26%) and they were more likely to be concerned about
neighborhood safety than the full black sample (group mean of
2.33 vs. 1.9). This group of mothers reported that the index
child had an average of 1 sibling, while the full black
sample reported an average of 1.7 siblings. The number of
people in the households of the 6 black mothers using
extended periods of self-care was lower (3.5) than in the
full black sample (4.2). Parental modernity was lower
(-0.09 vs. 0.14), as was family income (2.33 vs. 3.0). The
measure of economic well-being for this small group (0.74)
was very similar to the large group (0.80), however,
probably because of the smaller average household size.
These findings are suggestive of differences between
families that are willing to leave children in self-care for
lengthy periods and families that use self-care for shorter
periods.

Patterns of Self-Care Use By Selected Variables
Self-Care By Household Size

Tables 5a and 5b report the self-care status of
children by race and number of people in the household.
Among whites, 86% of the households fell within the 3-5
person range, while only 66% of the black families fell
within that range. Black households had a greater tendency
to be either larger or smaller. Regular use of self-care
among blacks tended to diminish as household size increased

Table 5a: Number of Children by Self-Care Status, by Black Race
And Number of People in the Household

Black

Number of People

	2	3	4	5	6	7	8	9	
Selfcare Status									
Freq. Pct.									
									Total
Never	9	10	13	6	8	7	2	2	57
	.41	.29	.42	.19	.53	.78	1.00	.67	.39
Sporadic	7	13	9	13	3	2	0	1	48
	.37	.38	.29	.41	.20	.22	.00	.33	.32
Regular	6	11	9	13	4	0	0	0	43
	.27	.32	.29	.41	.27	.00	.00	.00	.29
Total	22	34	31	32	15	9	2	3	148
Pct.	.15	.23	.21	.22	.10	.06	.01	.02	1.00

Table 5b: Number of Children by Self-Care Status, by White Race
And Number of People in the Household

White

Number of People

Selfcare Status	2	3	4	5	6	7	8	9	Total
Freq. Pct.									
Never	1	4	4	0	0	0	0	1	10
	1.00	.44	.25	.00	.00	.00	.00	1.00	.23
Sporadic	0	2	5	6	1	0	0	0	14
	.00	.22	.31	.50	.33	.00	.00	.00	.33
Regular	0	3	7	6	2	1	0	0	19
	.00	.33	.44	.50	.67	1.00	.00	.00	.44
Total	1	9	16	12	3	1	0	1	43
Pct.	.02	.21	.37	.28	.07	.02	.00	.02	1.00

but tended to increase among whites as household size increases. For example, 40% of the black children in regular self-care lived in two- or three-person households compared with 16% of the white children in regular self-care. Sixty percent of the black children in regular self-care lived in four- to seven-person households, while 74% of the white children in regular self-care lived in households of that size.

Self-Care By Marital Status

Black mothers were much more likely than white mothers (72% vs. 35%) to be unmarried (see Table 6), but marital status appeared to have very little association with level of self-care use, with the possible exception of the tendency of married white mothers to use regular self-care at a greater rate than unmarried white mothers (50% vs. 33%).

Self-Care By Employment Status of Mother

Table 7 summarizes the association of self-care level with race and the employment status of the mother. Employment patterns were very similar for all women in the sample, regardless of race. Among black women, employment status had a much more limited impact on self-care level than among white women. For example, children of black mothers working full-time were equally likely to report that they have never been in self-care as to report regular self-care (34% for both). The pattern for white children whose mothers were employed full-time was quite different. Only

Table 6: Number of Children by Self-Care Status, by Race
and by Mother's Marital Status

	Black			White			
	Married	Unmarried		Married	Unmarried		

Freq.
Pct.
Row Pct.
Col. Pct.

Selfcare Status	Married	Unmarried	Sub Total	Married	Unmarried	Sub Total	Grand Total
Never	15	42	57	6	4	10	67
	0.10	0.28		0.14	0.09		
	0.26	0.74		0.60	0.40		
	0.36	0.40	0.39	0.21	0.27	0.23	
Sporadic	16	32	48	8	6	14	62
	0.11	0.22		0.19	0.14		
	0.33	0.67		0.57	0.43		
	0.38	0.30	0.32	0.29	0.40	0.33	
Regular	11	32	43	14	5	19	62
	0.07	0.22		0.33	0.12		
	0.26	0.74		0.74	0.26		
	0.26	0.30	0.29	0.50	0.33	0.44	
Total	42	106	148	28	15	43	191
	0.28	0.72	1.00	0.65	0.35	1.00	

Table 7: Number of Children by Self-Care Status, by Race
And Employment Status of the Mother

	Black WORKING				White WORKING				Total
	None	Part	Full		None	Part	Full		
Selfcare Status									
Freq. Pct. Row Pct. Col. Pct.				Sub Total				Sub Total	
Never	23	11	23	53	7	2	1	10	67
	0.16	0.07	0.16		0.16	0.05	0.02		
	0.40	0.19	0.40		0.70	0.20	0.10		
	0.43	0.41	0.34	0.38	0.41	0.20	0.06	0.23	
Sporadic	19	8	21	45	6	3	5	14	62
	0.12	0.05	0.14		0.14	0.07	0.12		
	0.40	0.17	0.44		0.43	0.21	0.36		
	0.35	0.30	0.31	0.32	0.35	0.30	0.31	0.33	
Regular	12	8	23	42	4	5	10	19	62
	0.08	0.05	0.16		0.09	0.12	0.23		
	0.28	0.19	0.54		0.21	0.26	0.53		
	0.22	0.30	0.34	0.30	0.24	0.50	0.63	0.44	
Total	54	27	67	148	17	10	16	43	191
Pct.	0.37	0.18	0.45	1.00	0.40	0.23	0.37	1.00	

6% of those children reported no episode of self-care, while 63% reported regular self-care. For white mothers working part-time, the pattern was similar (though not as pronounced) with 20% of the children reporting no experience with self-care and 50% reporting regular self-care. For both blacks and whites, approximately 30% of families used sporadic self-care, no matter what the mother's employment status.

Self-Care By Economic Well-being

Table 8 lists mean values on economic well-being. The effect size of the differences between the mean values of the "regular" self-care group and the "never" self-care group are also listed. Effect size was calculated by subtracting the mean for the "control" group (never in self-care) from the mean for the "experimental" group (regularly in self-care) and dividing by the standard deviation of the "control" group. Figure four, on the following page, presents means on economic wellbeing by race and by gender in graphical form.

The overall discrepancy between blacks and whites is clear. For families in self-care groups one and three, economic wellbeing was higher for whites than for blacks. Racial differences in economic wellbeing were minimal for those families using sporadic self-care. Among blacks, economic well-being was lower than among whites and not

Table 8: Group Means on Economic Wellbeing By Race, Gender,
And Self-Care Status

	Black			White	
	Boys	Girls		Boys	Girls
Selfcare Status					
Never					
Mean	0.79	0.73		1.09	1.51
N	21	36		4	6
Std. Dev.	0.59	0.44		0.83	0.99
Sporadic					
Mean	0.76	0.89		0.78	0.67
N	26	22		9	5
Std. Dev.	0.50	0.51		0.47	0.21
Regular					
Mean	0.85	0.89		1.29	1.05
N	29	14		9	10
Std. Dev.	0.43	0.67		0.61	0.55
Effect Size	0.10	0.36		0.24	-0.46
Total N	76	72		22	21

Figure 4: Economic Wellbeing
Means by Race, Gender, and Self-Care

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
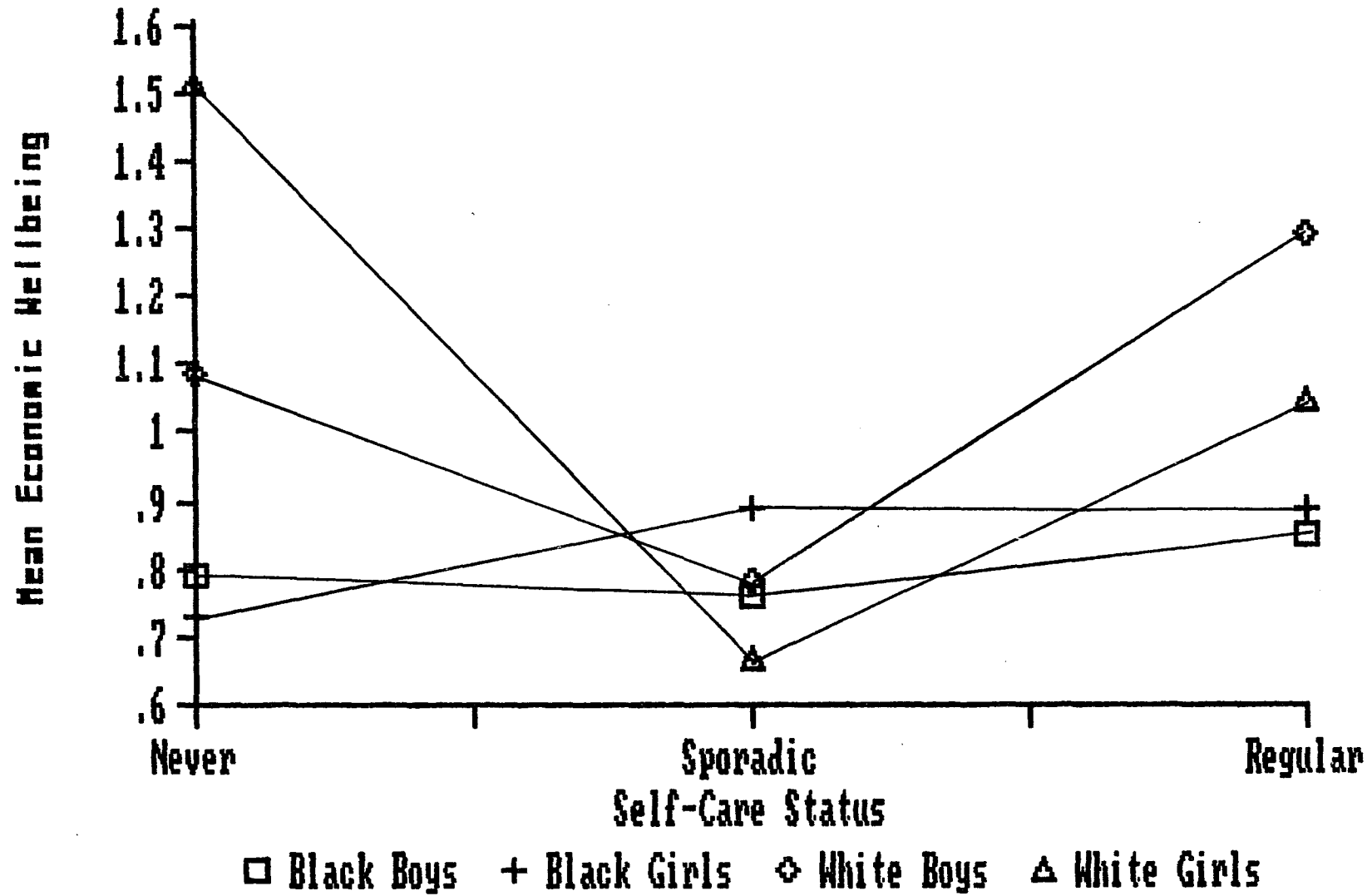
highly associated with self-care levels. There was a slight tendency for higher levels of self-care to be associated with higher levels of economic well-being.

Among whites, the highest level of economic well-being was associated with a child's report that he or she was never been in self-care. This effect was particularly strong for girls, with an effect size of close to half a standard deviation. Among the 14 whites who report sporadic self-care, the mean level of economic well-being (.74) was lower than any other self-care group, black or white.

Self-Care By Parental Modernity

Table 9 summarizes mean values on parental modernity by race, gender, and self-care status. Among blacks, the levels for boys and girls were relatively consistent with one another and there was some tendency for mothers using regular self-care to be more modern in their childrearing values. Among white mothers, the pattern was somewhat more complicated. In general, levels of parental modernity were higher among white mothers than among blacks. Only the groups using sporadic self-care reported consistent levels of parental modernity for boys and girls, however.

Among those reporting no use of self-care, mothers of girls were strikingly more modern, while among those reporting regular use of self-care, mothers of boys were strikingly more modern. The effect sizes of the differences between these means are large (.85 and -1.68) and opposite

Table 9: Group Means on Parental Modernity By Race, Gender,
          And Self-Care Status

	Black		White	
	Boys	Girls	Boys	Girls
Selfcare Status				
Never				
Mean	0.14	0.04	0.06	0.95
N	21	36	4	6
Std. Dev.	0.60	0.63	1.43	0.37
Sporadic				
Mean	0.18	-0.001	0.96	0.90
N	26	22	9	5
Std. Dev.	0.81	0.76	1.07	1.14
Regular				
Mean	0.27	0.38	1.28	0.33
N	29	14	9	10
Std. Dev.	0.55	1.11	0.97	1.17
Effect Size	0.22	0.54	0.85	-1.68
Total N	76	72	22	21

Figure 5: Parental Modernity
Means by Race, Gender, and Self-Care

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
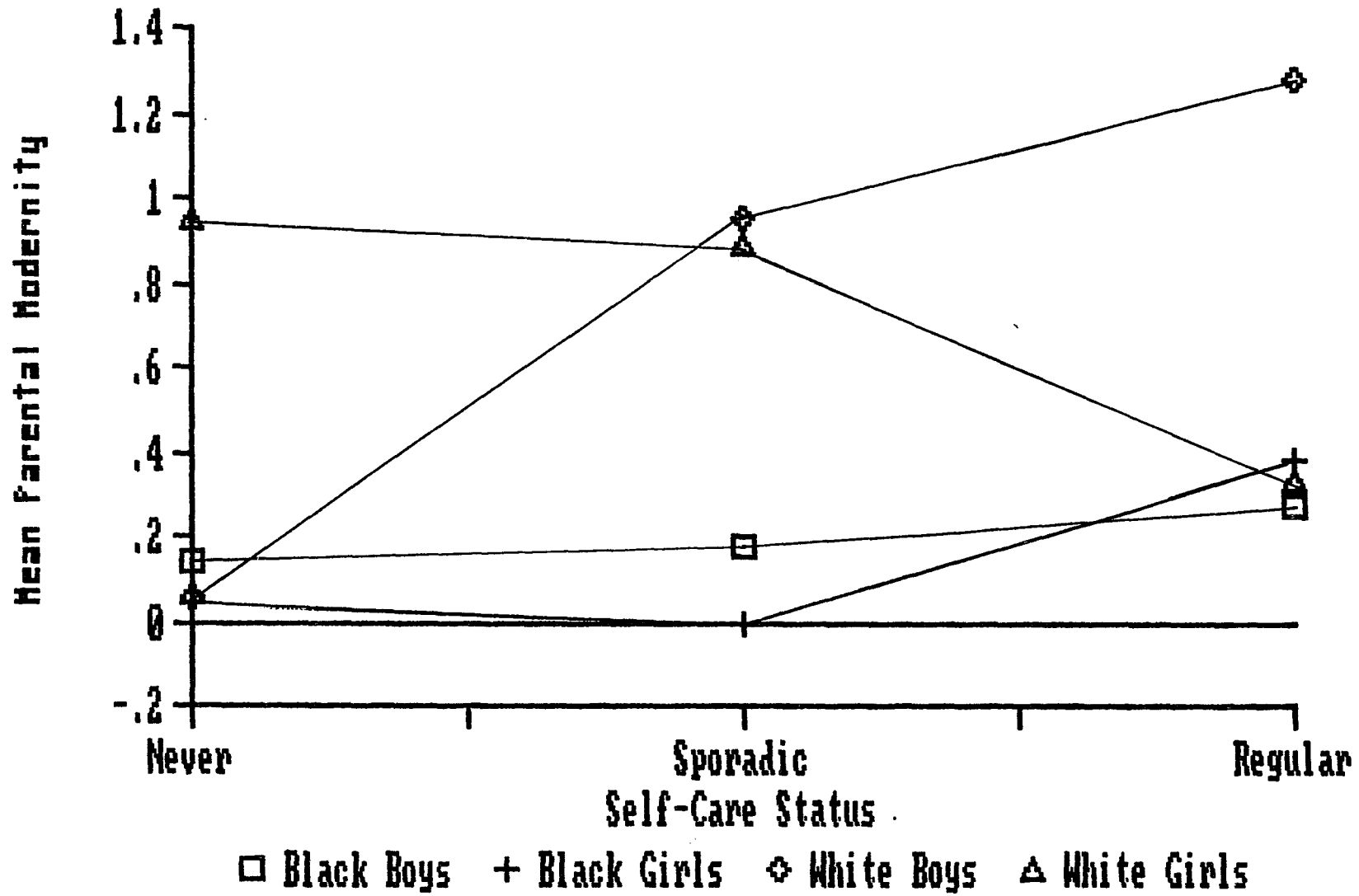
in direction. Figure 5 shows the strong interaction between self-care status and gender for white mothers on parental modernity. These results are based on very small cell sizes and might not be replicated with larger groups. Nonetheless, the differences are large enough to suggest further research investigating the role of parental modernity in influencing the likelihood that white boys and girls will be in self-care.

Self-Care By Maternal Conforming Values

Table 10 and Figure 6 present group differences on maternal valuing of their child's conforming behavior. There appear to be overall differences between whites and blacks, with whites tending to value children's conformity more highly than blacks. The pattern for this variable and for parental modernity is much the same: blacks have lower means on conforming values and no evidence of any interaction with self-care status or gender. Whites have higher means and a strong interaction between self-care status and gender. The effect sizes for whites were somewhat smaller than they were for parental modernity, but the effects were still in opposite directions for boys and girls.

Self-Care By Maternal Somatic Symptoms

Variation in group means on maternal somatic symptoms (shown in Table 11 and Figure 7) showed non-systematic

Table 10: Group Means on Maternal Conforming Values By Race, Gender
And Self-Care Status

| | Black | | White | |
	Boys	Girls	Boys	Girls
Selfcare Status				
Never				
Mean	2.56	2.71	3.00	3.33
Std. Dev.	0.51	0.46	0.72	0.47
N	21	36	4	6
Sporadic				
Mean	2.63	2.60	3.16	2.83
Std. Dev.	0.60	0.48	0.65	0.46
N	26	22	9	5
Regular				
Mean	2.55	2.76	3.53	2.88
Std. Dev.	0.45	0.65	0.50	0.87
N	29	14	9	10
Effect Size	-0.02	0.11	0.74	-0.96
Total N	76	72	22	21

Figure 6: Maternal Conformity
Means by Race, Gender, and Self-Care

Mean Maternal Conformity vs. Self-Care Status (Never, Sporadic, Regular)

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
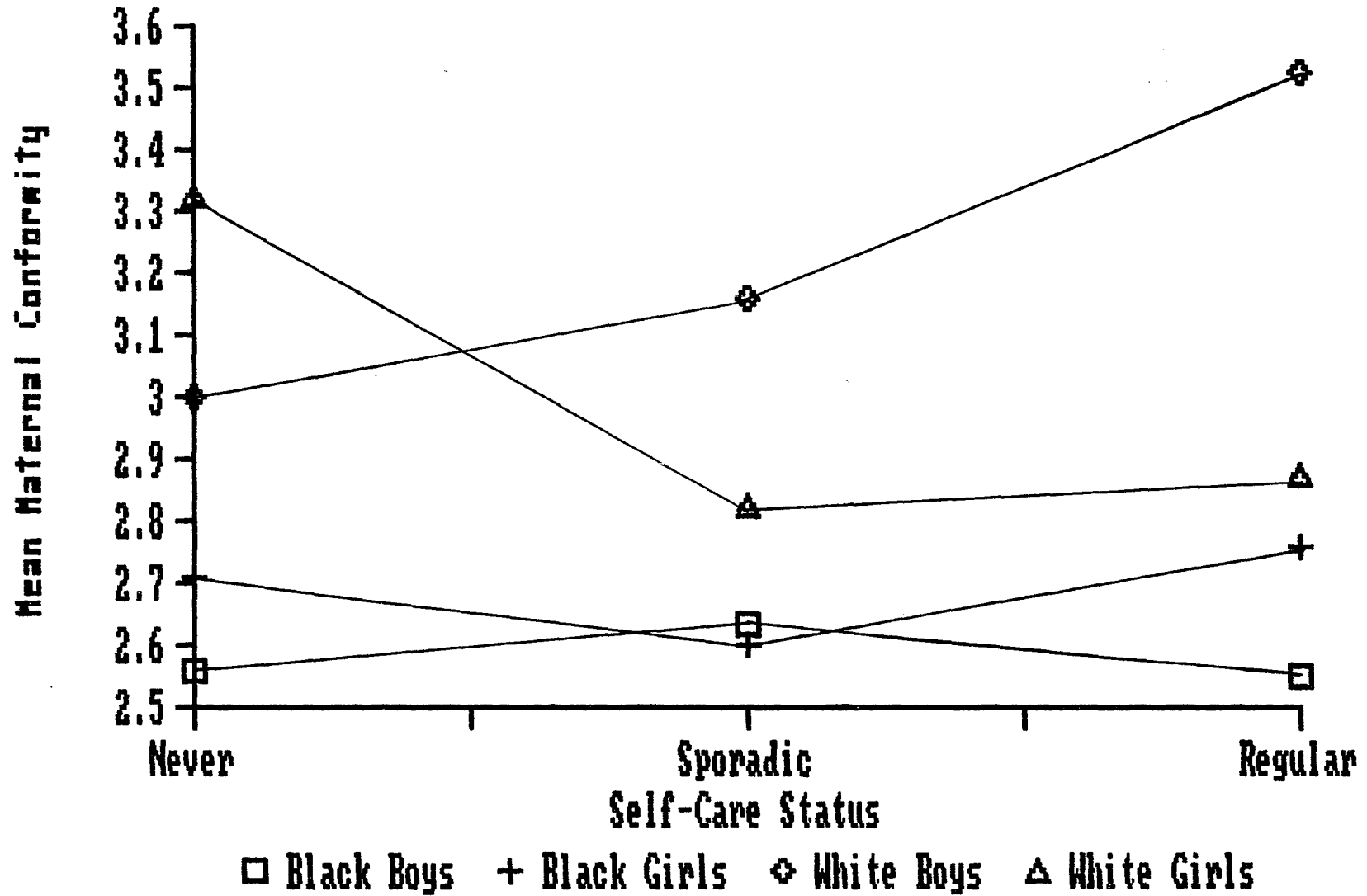
Table 11: Group Means on Maternal Somatic Symptoms By Race, Gender
And Self-Care Status

| | Black | | | White | |
	Boys	Girls		Boys	Girls
Selfcare Status					
Never					
Mean	1.84	2.12		2.27	2.08
Std. Dev.	0.45	0.52		0.61	0.47
N	21	36		4	6
Sporadic					
Mean	1.75	1.73		1.99	1.67
Std. Dev.	0.51	0.42		0.69	0.69
N	26	22		9	5
Regular					
Mean	1.86	1.80		1.53	2.35
Std. Dev.	0.60	0.54		0.21	0.74
N	29	14		9	10
Effect Size	0.04	-0.62		-1.21	0.57
Total N	76	72		22	21

Figure 7: Maternal Somatic Symtoms
Means by Race, Gender, and Self-Care

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
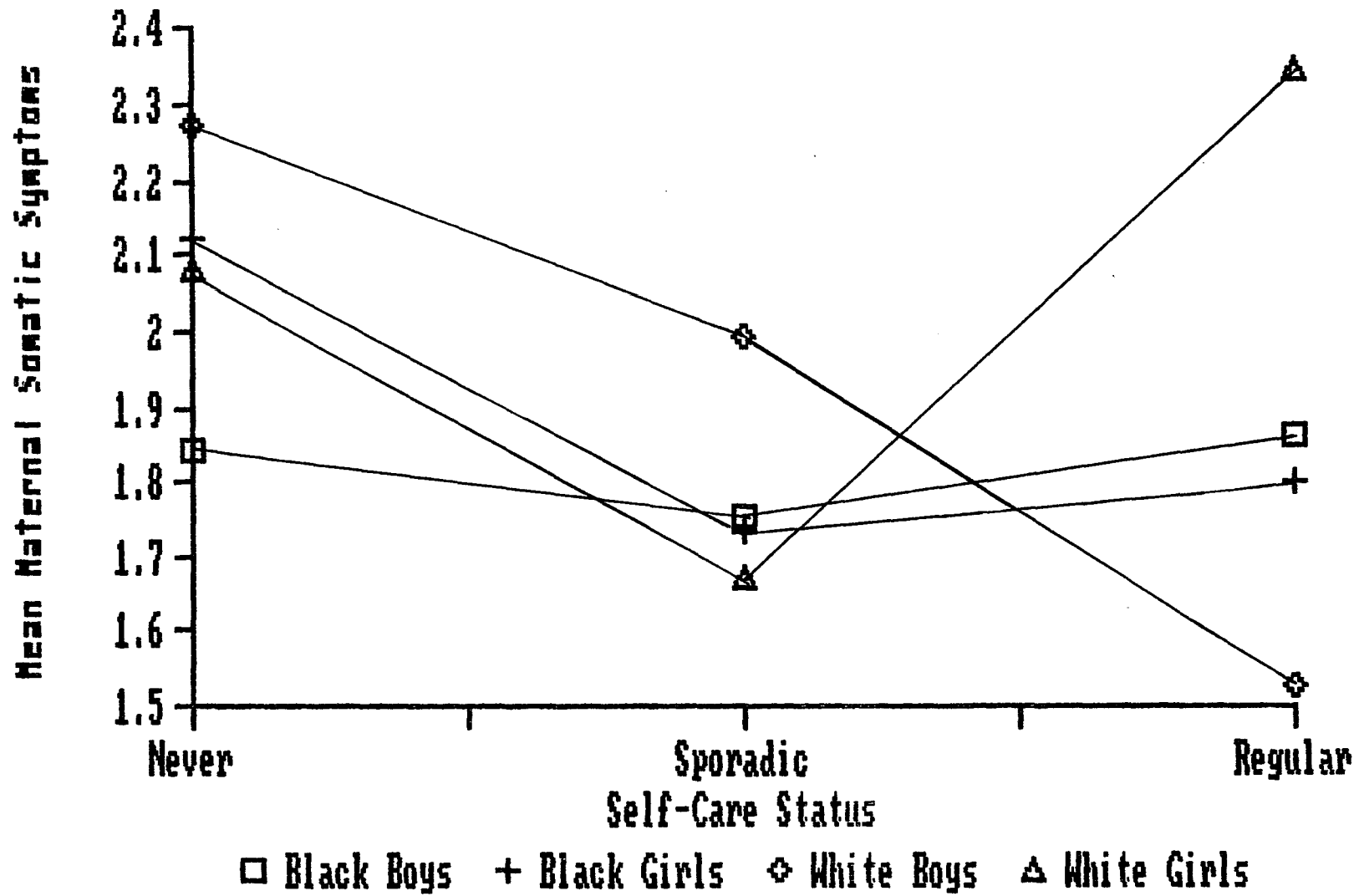
patterns by race, gender, and self-care status. Means on
this variable among blacks tended to be quite similar to one
another, with the exception of the elevated mean for the
mothers of black girls who had never been in self-care.
Among whites, there was an interaction between self-care
status and gender. Mothers of boys who had never been in
self-care and mothers of girls in regular self-care reported
more somatic symptoms in relation to other groups. The
effect sizes of comparisons between regular self-care groups
and adult care groups were substantial for three out of the
four groups. For whites, the interaction between gender and
self-care was apparent in the large effect sizes and
opposing signs for boys and girls.

Self-Care By Mother's Belief That Working is Good for Her
Child

Table 12 presents a detailed picture of the mothers'
views on the amount of work deemed best for their children,
by race and self-care status. As mentioned earlier, a
higher proportion of black mothers than of white mothers
believed that full-time work for themselves was good for
their child. As the child's amount of time in self-care
increased, fewer mothers stated that full-time work was good
for their children. Independent of self-care status, 16% of
white mothers and 38% of black mothers said that full-time
work was best for their child. Sixty-three percent of white
mothers and 47% of black mothers said part-time work was

Table 12:   Self-Care Status of Children by Race
            And Mother's Belief that Working Is Good For Child

	Black				White				
	Work Level Good For Child				Work Level Good For Child				
Selfcare Status	None	Part	Full	Sub Total	None	Part	Full	Sub Total	Total
Freq. Pct. Row Pct. Col. Pct.									
Never	11	23	23	57	2	5	3	10	67
	0.07	0.16	0.16		0.5	0.12	0.07		
	0.19	0.40	0.40		0.20	0.50	0.30		
	0.50	0.33	0.41	0.39	0.22	0.19	0.43	0.23	
Sporadic	6	22	20	48	0	10	4	14	62
	0.04	0.15	0.14		0	0.23	0.09		
.	0.13	0.46	0.42		0	0.71	0.29		
	0.27	0.31	0.36	0.32	0	0.37	0.57	0.33	
Regular	5	25	13	43	7	12	0	19	62
	0.03	0.17	0.09		0.16	0.28	0		
	0.12	0.58	0.30		0.37	0.63	0		
	0.23	0.36	0.23	0.29	0.78	0.44	0	0.44	
Total	22	70	56	148	9	27	7	43	191
Pct.	0.15	0.47	0.38		0.21	0.63	0.16		

best for their child and 21% of white mothers and 15% of black mothers said that it was better for their children for the mothers not to work.

Self-Care By Maternal Concerns About Neighborhood Safety

Table 13 presents maternal concerns about neighborhood safety by race and self-care status. Forty-seven percent of blacks and 44% of whites report that they are not at all concerned about neighborhood safety. The lower two levels taken together indicated minimal levels of concern about neighborhood safety. Ninety-one percent of whites and 75% of blacks fell into one of these categories. Nonetheless, a sizeable minority (25%) of blacks reported high levels of concern, while only 9% of whites expressed high levels of concern, where "high" is defined as responses in categories 3 or 4. Especially for black mothers, there does appear to be greater apprehension about neighborhood safety among those who use regular self-care than among those who do not. Much of this effect for black mothers was attributable to the responses of the seven mothers who left their children alone for long periods of time.

Self-Care By Maternal Perceptions of Child's Obedience

Mean scores on maternal perceptions of their children's obedience (see Table 14) were quite similar for black boys and girls at all levels of self-care. There is somewhat greater variability among the white mothers. Figure 8

Table 13: Number of Children by Self-Care Status, by Race,
And by Concerns About Neighborhood Safety

	Black					White				
	Neighborhood Safety Concerns					Neighborhood Safety Concerns				
	Low		High			Low		High		
	1	2	3	4	Sub Total	1	2	3	4	Sub Total	Total

Selfcare
Status

Freq.
Pct.
Row Pct.
Col. Pct.

Never	27	20	4	6	57	5	5	0	0	10	67
	.18	.14	.03	.04		.12	.12	0	0		
	.47	.35	.07	.10		.50	.50	0	0		
	.39	.49	.18	.40	.39	.26	.25	0	0	.23	
Sporadic	24	12	9	3	48	6	6	2	0	14	62
	.16	.08	.06	.02		.14	.14	.05	0		
	.50	.25	.19	.06		.43	.43	.14	0		
	.34	.29	.41	.20	.32	.32	.30	.67	0	.33	
Regular	19	9	9	6	43	8	9	1	1	19	62
	.13	.06	.06	.04		.19	.21	.02	.02		
	.44	.21	.21	.14		.42	.47	.05	.05		
	.27	.22	.41	.40	.29	.42	.45	.33	1.0	.44	
Total	70	41	22	15	148	19	20	3	1	43	191
	.47	.28	.15	.10		.44	.47	.07	.02		

Table 14:   Group Means on Maternal Perception of Child's Obedience
            By Race, Gender and Self-Care Status

| | Black | | White | |
	Boys	Girls	Boys	Girls
Selfcare Status				
Never				
Mean	3.17	3.16	2.50	3.33
Std. Dev.	0.50	0.59	0.90	0.47
N	21	36	4	6
Sporadic				
Mean	3.26	3.29	3.33	3.20
Std. Dev.	0.48	0.50	0.28	0.71
N	26	22	9	5
Regular				
Mean	3.10	3.13	2.87	3.04
Std. Dev.	0.56	0.79	0.50	0.43
N	29	14	9	10
Effect Size	-0.14	-0.05	0.41	-0.62
Total N	76	72	22	21

Figure 8: Child's Obedience
Means by Race, Gender, and Self-Care

Mean Child's Obedience

Self-Care Status

Never   Sporadic   Regular

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
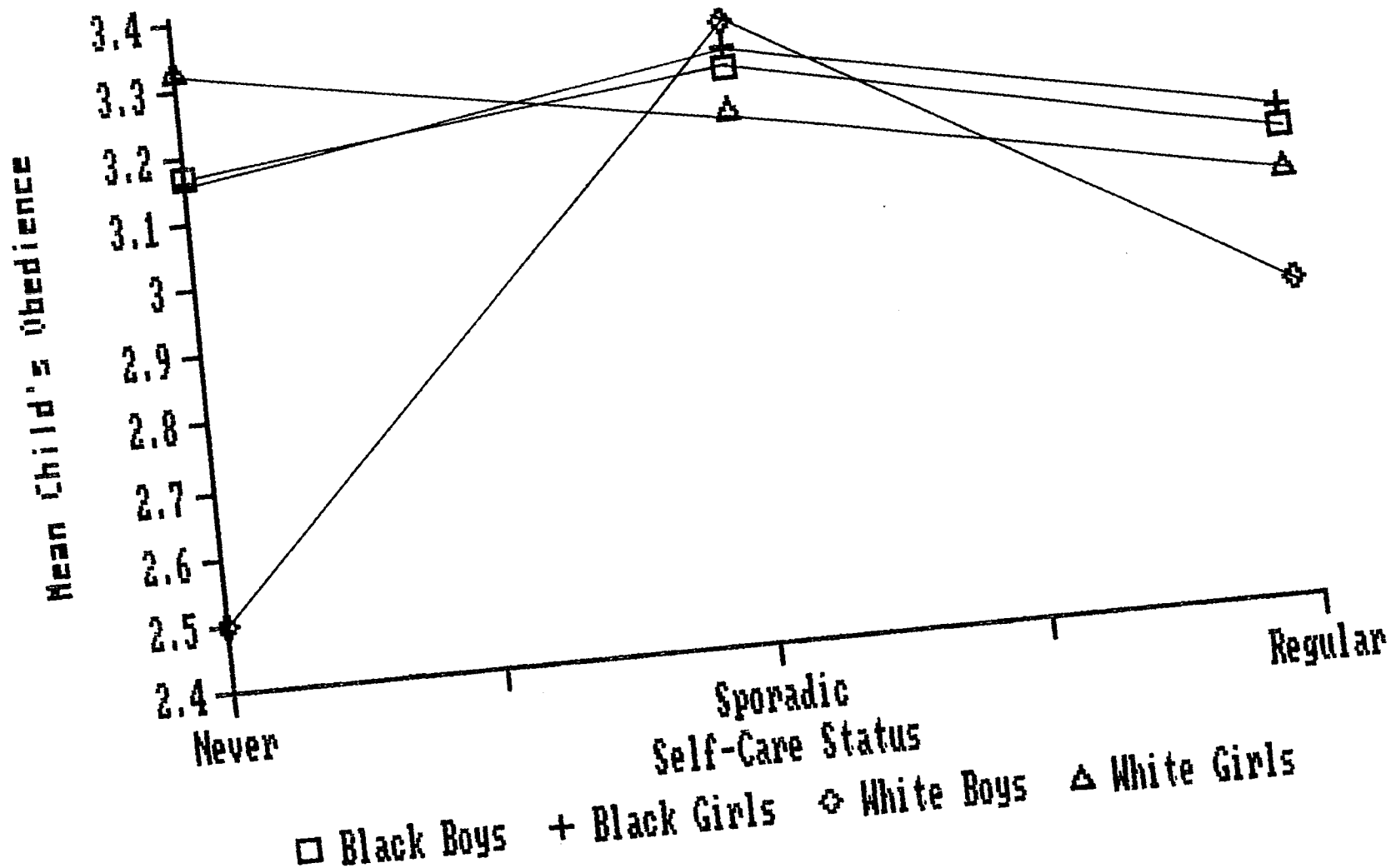
illustrates the degree to which white boys were seen as less obedient by their mothers than white girls. Mothers of white boys who were never in self-care were the most likely to rate their children low on obedience. This might suggest that white parents used perceived obedience as a way to determine whether children should be left in self-care. Again, the small sample size might make these results subject to question.

Self-Care By Maternal Perceptions of Child's Independence

Black and white mothers rated their children's independence highly and almost identically for boys and girls at all levels of self-care. As can be seen by the data in Table 15 and Figure 9, the mean values for all groups were well above three for all groups on a scale of 1 to 4. The variability of this measure is likewise small. If mothers in the study did vary on this variable, this measure did not allow that to be reflected.

Self-Care By Number of Siblings

Table 16 presents the number of siblings in the home by race and self-care status. Even though the mean number of siblings was quite similar for white and black families (1.6 vs. 1.7), the number of siblings among families was distributed quite differently for blacks and whites. In general, blacks were more likely to have very small or very large families. Twenty-two percent of the black children had no siblings, in contrast to the 12% of white children

Table 15: Group Means on Maternal Perception of Child's Independence
By Race, Gender and Self-Care Status

	Black		White	
	Boys	Girls	Boys	Girls
Selfcare Status				
Never				
Mean	3.29	3.36	3.30	3.33
Std. Dev.	0.45	0.53	0.26	0.30
N	21	36	4	6
Sporadic				
Mean	3.32	3.42	3.33	3.24
Std. Dev.	0.52	0.53	0.77	0.41
N	26	22	9	5
Regular				
Mean	3.36	3.39	3.36	3.47
Std. Dev.	0.45	0.53	0.55	0.34
N	29	14	9	10
Effect Size	0.16	0.06	0.23	0.47
Total N	76	72	22	21

Figure 9: Child's Independence
Means by Race, Gender, and Self-Care

Mean Child's Independence vs. Self-Care Status

□ Black Boys   + Black Girls   ◇ White Boys   △ White Girls
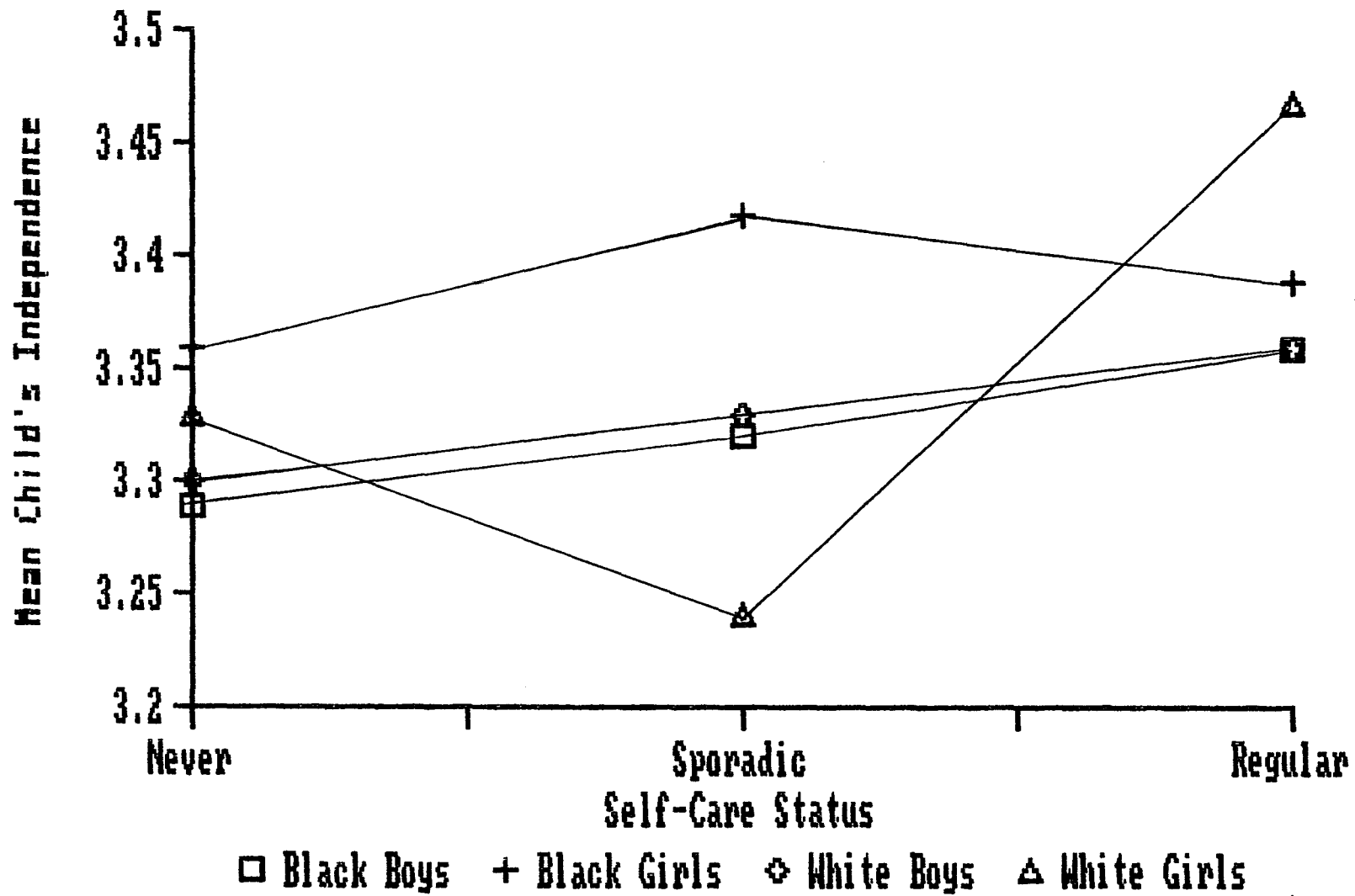
Table 16: Numbers of Children By Self-Care Status, by Race,
And by Number of Siblings

	Black								White					Total
	Number of Sibs								Number of Sibs					
Selfcare Status	0	1	2	3	4	5	6	7	0	1	2	3	4	
Never	14	12	15	9	3	1	2	1	4	4	1	1	0	67
	44%	29%	38%	41%	60%	33%	67%	50%	80%	27%	6%	25%	0%	35%
Sporadic	11	14	14	5	1	2	0	1	0	3	10	1	0	62
	34%	34%	35%	23%	20%	67%	0%	50%	0%	20%	56%	25%	0%	32%
Regular	7	15	11	8	1	0	1	0	1	8	7	2	1	62
	22%	37%	28%	36%	20%	0%	33%	0%	20%	53%	39%	50%	100%	32%
Total	32	41	40	22	5	3	3	2	5	15	18	4	1	191
	17%	21%	21%	12%	3%	2%	2%	1%	3%	8%	9%	2%	1%	100%

with no siblings. On the other hand, 24% of the black index children lived in families with three or more siblings, while 12% of white children were in this category. There were no white families in which the index child had more than four siblings but in eight of the black families (5%) the index child had more than four siblings. Seventy-seven percent of the white children had one or two siblings while 55% of the black children had one or two siblings.

The numbers in many of the cells of this table are small, making interpretation difficult, but there appeared to be a tendency among the black families to use self-care less as the number of siblings rose. The pattern may be easiest to observe by looking at the self-care status "never" and noting that the percentages of children in that category rose as number of siblings rose. Just the opposite pattern was observed among whites in the "never" self-care category.

Results of Single-Variable Prediction Models
of Use of Self-Care

Before analyzing the four preliminary models of self-care, all variables that had been selected as potentially predictive of self-care use were entered into single-variable prediction models for blacks and whites separately. The author suspected, after looking at some of the differences between black and white use of self-care (as described above), that the determinants of self-care differ

by race. The outcome variable for these analyses was dichotomous, with 0 representing no use of self-care and 1 representing regular use of self-care. For these and subsequent analyses, a p value of 0.10 was selected as the critical level of significance to use for reporting results. This level of significance was selected, rather than the more traditional 0.05, because of the small sample size and the exploratory nature of the research. The author believed that if 0.05 were chosen as the critical level of significance, some variables of substantive interest for further research would be overlooked.

Tables 17 and 18 present the three variables most highly related to use of self-care among blacks and among whites. Obviously, the results of these analyses distort the true relationships of the independent variables to use of self-care because the individual models are misspecified. Optimally, all independent and mediating variables and their relationships should have been posited and tested at once. The small sample size prevented examination of the optimal model. Therefore, two strategies for variable selection were employed. First, all independent variables were considered individually in separate prediction models. Second, four preliminary models containing two to four predictor variables were tested and the best predictors were selected for analysis in composite models. The results of this second approach are discussed in the next section.

Table 17 : **Results of Three Best Single-Variable Prediction Models of Use of Self-Care (Logistic Regression Analyses For Blacks Only)**

		Coeff.	Std. Err.	T-Ratio	Sig. Lvl.
Model 1	INTERCEPT	-.375125	.213594	-1.756	.07905
	PARENTAL MODERNITY	.496478	.307020	1.617	.10586
log likelihood		-66.957			
Chi Square		2.7492			
(df)		1			
p=		.09730			
N		100			
Model 2	INTERCEPT	.934555	.765887	1.220	.22238
	MOTHER'S SOMATIC SYMPTOMS	-.630952	.385770	-1.636	.10193
log likelihood		-66.948			
Chi Square		2.7661			
(df)		1			
p=		.09628			
N		100			
Model 3	INTERCEPT	1.59001	.653922	2.431	.01504
	GENDER	-1.26723	.425803	-2.976	.00292
log likelihood		-63.662			
Chi Square		9.3385			
(df)		1			
p=		.002244			
N		100			

Table 18 :   Results of Three Best Single-Variable Prediction Models of
Use of Self-Care (Logistic Regression Analyses
For Whites Only)

		Coeff.	Std. Err.	T-Ratio	Sig. Lvl.
Model 1	INTERCEPT	-1.99002	1.07800	-1.846	.06489
	MOTHER WORKING	1.43861	.589253	2.441	.01463
log likelihood		-14.750			
Chi Square		7.8625			
(df)		1			
p=		.00505			
N		29			
Model 2	INTERCEPT	-.604284	.731156	-.826	.40853
	NUMBER OF SIBS	.989196	.528705	1.871	.06135
log likelihood		-16.399			
Chi Square		4.5641			
(df)		1			
p=		.03265			
N		29			
Model 3	INTERCEPT	3.32156	1.58205	2.100	.03577
	WORKING GD FOR CHILD	-1.43675	.793229	-1.811	.07010
log likelihood		-16.629			
Chi Square		4.1041			
(df)		1			
p=		.04278			
N		29			

As expected, the three variables that were reliably able to predict self-care among blacks in this sample were not the ones that were able to predict self-care among whites reliably. The three variables that were the best predictors among blacks (see Table 17) were gender (GENDER), mother's somatic symptoms (Y3SOMAT), and mother's parental modernity (YKPMTOT). Among blacks, being a female child predicted less use of self-care. A child was less likely to be in self-care if the mother had higher levels of somatic symptoms, but more likely to be in self-care if the mother had higher scores on parental modernity. The strongest predictor by far was gender (p=.002). The remaining two variables were almost identical in the strength of their predictive power, and both barely met the p<0.10 criterion established for level of significance.

Table 18 presents the results of single-variable prediction models for whites. The three variables that met the p<0.10 criterion were mother's employment status (Y3WORKNG), the number of siblings present in the household (Y3SIBS), and mother's belief that working was good for her child (Y3GD4KID). The more fully employed the mother, the more likely the child was to be in self-care. The more siblings present in the home, the more likely the index child was to be in self-care. However, the less the mother believed that working part or full-time was good for her

child, the more likely the child was to be in self-care.
These three variables were more strongly related to use of
self-care than the three presented in Table 17, with all
three clearly significant at the p<0.10 level.

Results of Four Preliminary Explanatory Models

of Use of Self-Care

The second approach to variable selection was to group
the variables hypothesized to be related to use of self-care
into four preliminary models. The variables were selected
to represent a single concept or factor, to the extent that
this was possible, so that the variable or variables that
emerged as the best predictor(s) might be able to represent
the predictive power of others in that group to some extent.
If it was clear that more than one variable in each
preliminary model had unique and significant predictive
power, all such variables were selected for inclusion in the
final composite model.

In all the tables presenting the results of the
preliminary models (Tables 19, 21, 23, and 25) two sets of
results are presented. First, the results of the model for
the full sample are presented. Second, the results of the
same model using only the black subsample are presented.
This approach was taken to illustrate the similarities and
differences between the predictive variables for the full
sample and blacks only. Because of the small sample of
whites, it was not considered desirable to test all the

variables at one time in each prediction model, as was done for the full-sample and blacks-only models.

Tables 20, 22, 24, and 26 contain Pearson correlation coefficients among the variables in each preliminary model under consideration for the full sample, blacks, and whites. The correlations served as some indication of the association of each variable with self-care. However, the main reason for including these results is to give some indication of how much of a problem multicollinearity was likely to be. The strategy chosen, to deliberately include variables in each of the four models that were thought to be related to one another, raised the possibility that this might be a problem. The correlations will not be discussed further, because these analyses did not indicate that any variables were so highly related as to cause problems of multicollinearity.

Race and Gender Prediction Model

The results of the first preliminary model to be tested, the "Race and Gender" prediction model, are presented in Table 19. The two variables included in this model were common "demographic" variables. They were not conceptualized as being related to a single factor (or related factors), as were the variables in the other models. They are also not as likely to suggest defensible explanations for any association with self-care as are the

Table 19: Results of the Race and Gender Prediction Model
Of Use of Self-Care (Logistic Regression Analysis)

	Full Sample Model	Blacks Only Model
	Coefficient Standard Error T-Ratio Significance	Coefficient Standard Error T-Ratio Significance
Intercept	1.28952 .58637 2.199 .02787	1.59001 .653922 2.431 .01504
Race	1.04430 .458323 2.279 .02270	
Gender	-1.06101 .374943 -2.830 .00466	-1.26723 .425803 -2.976 .00292
Log Likelihood	-82.838	-63.662
Chi Square n (df) p=	12.962 129 2 .00153	9.3385 100 1 .00224

Table 20: Pearson Correlation Coefficients Among Variables in the
Race and Gender Prediction Model of Use of Self-Care

Row 1: Full Sample (n=129)
Row 2: Blacks ·Only (n=100)
Row 3: Whites Only (n=29)

	USE OF SELF-CARE
RACE	0.1881 **
GENDER	-0.2397 *** -0.3030 *** -0.0704

p<.10 *
p<.05 **
p<.01 ***

variables in the other models. Both race and gender, but particularly race, are categories so broad as to be inclusive of many potential sources of variation.

The results of the logistic regression analysis suggested that both variables were strong and independent predictors of use of self-care. In the full sample model, both race (p=.02) and gender (p=.004) were significant predictors of use of self-care and the overall model was also significant (p=.001). Thus, boys and whites are significantly more likely to be in self-care than girls and blacks. When race is held constant by entering gender alone in a separate logistic prediction models for blacks, it remained a strong and significant predictor of use of self-care. Gender was not significant in the comparable single-variable prediction model for whites. Therefore, it is apparent that the influence of gender on use of self-care in the full sample model is coming entirely from the black subsample of 100 families.

Necessity Prediction Model

Table 21 presents the results of the "Necessity" prediction model of use of self-care. This model was constructed to test the effect of variables that might indicate that the use of self-care was due to necessity. The variables included are the number of people in the household, the mother's employment status, and the mother's marital status.

Table 21: Results of the Necessity Prediction Model of Use of Self-Care (Logistic Regression Analysis)

	Full Sample Model	Blacks Only Model
	Coeff. Std. Err. T-Ratio Sig. Lvl.	Coeff. Std. Err. T-Ratio Sig. Lvl.
Intercept	.568284 1.10981 .512 .60861	.720173 1.46151 .493 .62218
PEOPLE IN HOUSEHOLD	-.157309 .121337 -1.296 .19482	-.243950 .142228 -1.715 .08631
MOTHER WORKING	.425886 .207496 2.053 .04012	.255941 .237579 1.077 .28135
MOTHER MARITAL STATUS	-.525645 .401596 -1.309 .19057	-.292996 .520835 -.563 .57374
log likelihood	-85.282	-65.754
Chi Square	8.0743	5.1549
n	129	100
(df)	3	3
p=	.04450	.16080

Table 22: Pearson Correlation Coefficients Among Variables in the Necessity Prediction Model of Use of Self-Care

Row 1: Full Sample (n=129)
Row 2: Blacks Only (n=100)
Row 3: Whites Only (n=29)

	USE OF SELF-CARE	NUMBER IN HOUSEHOLD	MARITAL STATUS
NUMBER IN HOUSEHOLD	-0.1073 -0.1839 * 0.2138		
MARITAL STATUS	-0.0937 0.0083 -0.1406	-0.2966 *** -0.3919 *** -0.0425	
MOTHER WORKING	0.2043 ** 0.1418 0.4998 ***	-0.1311 -0.1557 -0.0284	-0.0560 -0.0546 -0.1712

p < .10 *
p < .05 **
p < .01 ***

Both number of people in the household and mother's marital status were included because they give some notion of how many individuals might be available to provide care for the young children in the family. Marital status was used, even though it is not an altogether accurate measure of the number of adults in the family. Large proportions of the mothers in the study, particularly black mothers, were not married, but it is very likely that adults other than spouses were present in many households. Likewise, number of people in the household was only a rough proxy for number of adults available for child care. As noted earlier, the people in the household might have been unrelated children or adults without family or caretaking ties to the mothers and children in the study. Mother's employment status was included because the rising proportion of working mothers has been cited frequently in the literature as a cause of self-care.

Financial necessity is also mentioned frequently as a cause of self-care, and the author planned to include some measure of financial need in this model. Family income and economic well-being (per capita income) were considered for inclusion, but the author decided not to include the three variables--number of people in the household, income, and economic well-being--in one model because economic well-being is a variable derived from the previous two. When

preliminary analyses of association were conducted for individual variables, only one, the number of people in the household, was significantly related to self-care. Therefore, the author concluded that the two economic variables were not likely to provide enough useful information in the analysis to warrant including them.

The "Necessity" model for the full sample (N=129) was significant (p=.04), but only one of the three variables included was, itself, significant. The mother's employment status was a significant (p=.04) positive predictor of regular use of self-care. However, the fact that it was not significant in the blacks-only model suggests the likelihood that the effect of this variable was coming almost entirely from the white subsample. For the black subsample, the only variable of the three that was significantly associated with the use of self-care was the number of people in the household (p=.08). The association of this variable with use of self-care was a negative one: that is, as household size went down, use of self-care tended to go up. The overall "Necessity" prediction model was not significant for the black subsample, in spite of the presence of one significant variable. Thus, the hypothesis that the coefficients for the three predictor variables taken together was zero was retained.

Maternal Attitudes Prediction Model

This model was designed to test the hypothesis that characteristics of mothers were related to the use of self-care. Table 23 presents the results of the "Maternal Attitudes" prediction model of use of self-care. The variables included in this model are parental modernity, maternal belief that working is good for the child, maternal conforming values, and maternal somatic symptoms. The first two variables related specifically to children and the second two were more general measures of maternal attitude and anxiety. The overall model for the full sample was significant, meaning that the hypothesis that all beta coefficients were zero could be rejected with confidence ($p=.04$).

Three of the four variables made a unique and significant contribution to the prediction of use of self-care for the full sample. As parental modernity increased, the likelihood that a child would be in self-care also rose ($p=.04$). As mother's somatic symptoms increased, possibly indicating general anxiety, the likelihood that her child would be in self-care decreased ($p=.06$). Finally, the more mothers believed that working was good for her child, the less likely the children were to be in self-care ($p=.09$). In the context of the other variables included in this model, a mother's conforming values did not predict her use of self-care for her child.

**Table 23: Results of the Maternal Attitudes Prediction Model
Of Use of Self-Care (Logistic Regression Analysis)**

	Full Sample Model	Blacks Only Model
	Coeff. Std. Err. T-Ratio Sig. Lvl.	Coeff. Std. Err. T-Ratio Sig. Lvl.
Intercept	3.17843 1.57768 2.015 .04394	2.73567 1.78733 1.531 .12587
PARENTAL MODERNITY	.52766 .262345 2.011 .04429	.57455 .321709 1.786 .07411
WORKNG GD FOR CHILD	-.47643 .278853 -1.709 .08754	-.16438 .312599 -.526 .59900
MOTHER CONFORMS	-.40363 .365346 -1.105 .26925	-.51965 .452851 -1.147 .25118
MOTHER'S SOMATIC SYMPTOMS	-.66054 .345967 -1.909 .05623	-.72273 .406014 -1.780 .07507
log likelihood	-88.064	-64.887
Chi Square (df) p=	10.212 4 .03610	6.88920 4 .14186
N	129	100

Table 24: Pearson Correlation Coefficients Among Variables in the
Maternal Attitudes Prediction Model of Use of Self-Care

Row 1:   Full Sample (n=129)
Row 2:   Blacks Only (n=100)
Row 3:   Whites Only (n=29)

	USE OF SELF-CARE	PARENTAL MODERNITY	MOTHER CONFORMS	MOTHER'S SOMATIC SYMPTOMS
PARENTAL	0.1810 **			
MODERNITY	0.1648 *			
	0.0829			
MOTHER	0.0457	0.4792		
CONFORMS	-0.0415	0.2724 ***		
	-0.0049	0.6579 ***		
MOTHER'S	-0.1463 *	-0.0870	-0.1701	
SOMATIC	-0.1652 *	-0.0300	-0.1081	
SYMPTOMS	-0.1513	-0.2717	-0.4496 **	
WORKING GD	-0.1277	-0.1111	-0.2013	-0.1607
FOR CHILD	-0.0175	-0.0719	-0.0960	-0.2208 **
	-0.3655 **	0.0107	-0.1915	0.0969

p<.10 *
p<.05 **
p<.01 ***

The model as a whole was not a significant predictor of self-care for the black subsample, even though two of the four variables (parental modernity and maternal somatic symptoms) were significantly related (p=.07) to use of self-care.

Fitness of Child and Environment Model

This model was designed to test the hypothesis that characteristics of the child and the self-care environment would contribute to the prediction of use of self-care. The variables included in the model included maternal concerns about neighborhood safety, maternal perceptions of the child's obedience and independence, and number of siblings present in the home (see Table 25). The overall model for the full sample was not significant, nor were any of the individual predictors. The same was true for the black subsample.

Results of Best Empirically-Derived Composite Prediction Models of Use of Self-Care

Full Sample Composite Prediction Model of Self-Care

After analyzing the preliminary models described above, the six variables that were the strongest predictors of use of self-care for the full sample of 129 were entered into one composite logistic regression equation. It had been decided a priori to use only the six best predictor variables, in order to maintain a sample size of

Table 25: Results of the Fitness of Child and Environment
Prediction Model of Use of Self-Care
(Logistic Regression Analysis

	Full Sample Model	Blacks Only Model
	Coeff. Std. Err. T-Ratio Sig. Lvl.	Coeff. Std. Err. T-Ratio Sig. Lvl.
Intercept	-0.74123 1.49269 -.497 .61949	-0.79166 1.65001 -.480 .63138
NBORHOOD UNSAFE	0.19712 .183745 1.073 .28336	0.21670 .197594 1.097 .27277
CHILD'S OBEDIENCE	-0.28477 .322204 -.884 .37680	-0.18896 .366242 -.516 .60590
CHILD'S INDEPEND.	0.36668 .405880 .903 .36630	0.25089 .446481 .562 .57416
NUMBER OF SIBS	-0.02910 .128302 -.227 .82055	-0.08876 .141361 -.628 .53007
log likelihood	-88.064	-67.266
Chi Square	2.5105	2.13020
(df)	4	4
n	129	100
p=	.64276	.71183

Table 26: Pearson Correlation Coefficients Among Variables in the
Fitness of Child and Environment Prediction Model of
Use of Self-Care

Row 1: Full Sample (n=129)
Row 2: Blacks Only (n=100)
Row 3: Whites Only (n=29)

	SELF-CARE STATUS	NBORHOOD UNSAFE	CHILD OBEDIENT	CHILD INDEPENDENT
NBORHOOD UNSAFE	0.0978			
	0.1151			
	0.1589			
CHILD OBEDIENT	-0.0625	-0.0555		
	-0.0422	-0.0456		
	-0.0359	-0.1987		
CHILD INDEPENDENT	0.0564	-0.0186	0.2900	
	0.0385	0.0023	0.2973 ***	
	0.1122	-0.1278	0.2939	
NUMBER OF SIBS	-0.0144	-0.0059	0.0057	0.0777
	-0.0637	-0.0403	0.0203	0.0711
	0.3725 **	0.1527	-0.1526	0.1481

p<.10 *
p<.05 **
p<.01 ***

approximately 20 cases per variable. This is the number recommended by at least one text as an adequate sample size in the case of multiple regression analysis (Pedhazur, 1982). In the absence of a similar recommendation for logistic regression analysis, the author decided to follow Pedhazur's recommendation.

Coincidentally, exactly six variables from the preliminary analyses met the criterion for significance that had been established by the author (p<0.10). The six variables that met the criterion for inclusion were parental modernity, maternal belief that working is good for her child, mother's somatic symptoms, number of sibs, gender, and maternal employment status.

The results of this analysis are presented in Table 27. The full-sample model had a chi-square value of 22.351 with 6 degrees of freedom. This result was significant at the 0.001 level of confidence. Three of the six independent variables were significant: race (p=0.05), mother working (p=0.04), and gender (p=0.009). Thus, use of self-care was significantly associated with being white, female, and having a working mother.

Black Sample Composite Prediction Model of Self-Care

The results of this analysis are also presented in Table 27. The best four predictors from the blacks only models were entered into a second composite logistic regression model that utilized the black subsample of 100.

Table 27: Results of the Best Composite Prediction Models
Of Use of Self-Care for Full Sample and for Blacks Only
(Logistic Regression Analyses)

		Full Sample Model	Blacks Only Model
Intercept	Coeff.	1.63462	3.58131
	Std. Err.	1.27359	1.27695
	T-Ratio	1.283	2.805
	Sig. Lvl.	.19933	.00504
PARENTAL		.214395	.353514
MODERNITY		.252348	.323939
		.850	1.091
		.39555	.27514
WORKING GD		-.337937	
FOR CHILD		.287513	
		-1.175	
		.23984	
MOTHER'S		-.342339	-.517008
SOMATIC		.360648	.410626
SYMPTOMS		-.949	-1.259
		.34250	.20800
RACE		.983785	
		.508404	
		1.935	
		.05298	
GENDER		-1.04941	-1.26329
		.400315	.450430
		-2.621	-2.805
		.00876	.00504
MOTHER		.466767	
WORKING		.225596	
		2.069	
		.03854	
NUMBER OF			-.255612
PEOPLE IN			.149975
HOUSEHOLD			-1.704
			.08831
log likelihood		-78.143	-60.170
Chi Square		22.351	16.322
n		129	100
(df)		6	4
p=		.001046	.002616

Of the set of six variables that were the best predictors for the full sample from the preliminary models, three were also the best predictors from the preliminary models for the black sample. The fourth variable, number of people in the household, was a significant predictor only for the black subsample. This was the only variable entered into the black-sample equation that was not also entered into the full-sample equation. The four variables tested in the composite prediction model for blacks only were parental modernity, mother's somatic symptoms, gender, and number of people in the household.

The composite logistic regression equation for blacks only was able to predict significantly the probability of using self-care. The overall chi-square, with 4 degrees of freedom, was 16.322 (p=0.002). Two of the four variables made significant contributions to the prediction of self-care use: gender (p=0.005) and number of people in the household (p=0.09). Male gender and low number of people in the household were related to increased use of self-care.

Composite Prediction Model of Self-Care for Whites

Table 28 contains the results of logistic regression analyses of two three-variable composite prediction models for whites only. The first model included the three best single predictors for the white subsample of 29. Those variables were: maternal belief that working is good for the

Table 28: Results of the Best Composite Prediction Model
Of Use of Self-Care for Whites Only
(Logistic Regression Analysis)

		Whites Only Model A (Best Pred. For Whites)	Whites Only Model B (Best Pred. For Blacks)
Intercept	Coeff.	-1.30922	1.59751
	Std. Err.	2.30397	1.73573
	T-Ratio	-.568	.920
	Sig. Lvl.	.56987	.35738
PARENTAL MODERNITY	Coeff.		.089695
	Std. Err.		.388373
	T-Ratio		.231
	Sig. Lvl.		.81735
WORKING GD FOR CHILD	Coeff.	-2.46996	
	Std. Err.	1.46423	
	T-Ratio	-1.687	
	Sig. Lvl.	.09163	
MOTHER'S SOMATIC SYMPTOMS	Coeff.		-.461141
	Std. Err.		.723738
	T-Ratio		-.637
	Sig. Lvl.		.52402
NUMBER OF SIBS	Coeff.	1.55573	
	Std. Err.	.783741	
	T-Ratio	1.985	
	Sig. Lvl.	.04714	
GENDER	Coeff.		-.045055
	Std. Err.		.872624
	T-Ratio		-.052
	Sig. Lvl.		.95882
MOTHER WORKING	Coeff.	2.41740	
	Std. Err.	.973567	
	T-Ratio	2.483	
	Sig. Lvl.	.01303	
log likelihood		-8.8652	-18.326
Chi Square		19.632	.71138
n		29	29
(df)		3	3
p=		.000202	.87052

child, number of siblings, and maternal employment status.

For comparison, the three best single predictors for the black subsample were entered into a logistic regression analysis, using the same white subsample of 29. Those variables were parental modernity, maternal somatic symptoms, and gender. There was no overlap between the three best predictors for the white subsample and the three best predictors for the black subsample.

The results of the analyses suggest that there are very different factors determining a child's self-care status for whites and blacks. Model A, containing the three best predictors for whites, had a chi-square value of 19.632 with 3 degrees of freedom (p=0.0002). Thus, as tendency to use self-care increased, mothers were less likely to believe that full time employment is good for their child, there were likely to be more siblings present in the household, and the mother was likely to be working. On the other hand, Model B, which attempted to predict use of self-care for whites by entering the best predictors for blacks, was completely unable to account for the probability that self-care will be used. The chi-square value for this model was 0.711 (p=0.87) and none of the variables in the equation was significant.

Effect of Independent Variables on Self-Care for Full-Sample and for Blacks-Only Composite Models

There is, at present, no widely accepted summary measure of total variance accounted for in logistic regression modeling that is analogous to the R^2 statistic used in multiple regression analysis. In addition, logistic regression analysis is based on an s-shaped logistic distribution function, rather than a linear distribution function. Therefore, the effect on the dependent variable of a one-unit change in an independent variable (while holding the other independent variables constant) is not the same over the entire range of the variables. It is necessary to evaluate the probability of one or the other of the dichotomous outcomes for different values of each independent variable, while holding the others constant, in order to communicate the magnitude of the effect of a given independent variable on the dependent variable. Table 29 presents the results of this type of evaluation for the six-variable composite model for the full-sample of 129 (see also Table 25) and Table 30 presents the results of this type of evaluation for the four-variable composite model for the black subsample of 100 (see also Table 27).

The first information given in Table 29 is the range for each variable. For the continuous variables, the lowest and highest values obtained are given. For the categorical variables, the range is given, as well as the number of

Table 29: The Effect of the Independent Variables in Composite Model 1
on the Probability that a Child Will be in Self-Care
(Selected Levels) Full Sample (n=129)

	YKPMTOT X1	Y3GD4KID X2	Y3SOMAT X3	Y3WORKNG X4	RACE X5	GENDER X6
Range		n		n	n	n
Min.	-1.7390	1 (25)	1.0000	1 (46)	0(100)	1(63)
Max.	2.8750	3 (39)	3.4000	3 (57)	1 (29)	2(66)
Percentile						
25%	-0.2614	2.0000	1.4670	1.0000		
50%	0.2727	2.0000	1.9330	2.0000		
75%	0.6989	3.0000	2.3665	3.0000		
Mean	0.2967	2.1085	1.9612	2.0853		

Effect of Selected Levels of Independent Variables on
Probability of Selfcare

	YKPMTOT X1	Y3GD4KID X2	Y3SOMAT X3	Y3WORKNG X4	RACE X5	GENDER X6	Subtot.	Z	p(y=1)
A	0.6989	2	1.4670	3	1	1	2.0067	1.9411	0.8745
B	-0.2614	3	2.3665	1	0	2	0.2214	-1.8774	0.1327

Systematic Variation in Y3WORKNG, RACE, GENDER
(Remaining Variables Held Constant)

	YKPMTOT X1	Y3GD4KID X2	Y3SOMAT X3	Y3WORKNG X4	RACE X5	GENDER X6	Subtot.	Z	p(y=1)
	0.2727	2	1.9330	1	0	1	0.8222	-0.2272	0.4435
	0.2727	2	1.9330	2	0	1	1.2890	0.2396	0.5596
.	0.2727	2	1.9330	3	0	1	1.7558	0.7064	0.6696
	0.2727	2	1.9330	1	1	1	0.8222	0.7566	0.6806
	0.2727	2	1.9330	2	1	1	1.2890	1.2234	0.7727
	0.2727	2	1.9330	3	1	1	1.7558	1.6902	0.8442
	0.2727	2	1.9330	1	0	2	0.8222	-1.2766	0.2181
	0.2727	2	1.9330	2	0	2	1.2890	-0.8098	0.3079
	0.2727	2	1.9330	3	0	2	1.7558	-0.3431	0.4151
	0.2727	2	1.9330	1	1	2	0.8222	-0.2928	0.4273
	0.2727	2	1.9330	2	1	2	1.2890	0.1740	0.5434
	0.2727	2	1.9330	3	1	2	1.7558	0.6407	0.6549

$Z=1.1635+(.2144X1)+(-.3379X2)+(-.3423X3)+(.4668X4)+(.9838X5)+(-1.0494X6)$
$P(Y=1) = 1/[1 + \exp(-Z)]$

subjects who fall into the highest and lowest categories.
Next, the values associated with the 25th, 50th, and 75th
percentiles are given for all variables except race and
gender, and the mean values are listed.

The equations used to evaluate the effect of
interesting values of the independent variables on the
likelihood that a child will be in self-care are given at
the bottom of Table 29. The results of entering a variety of
values for the independent variables into the equations are
given in the lower half of Table 29. First, two equations
were designed to contrast two situations in which a child
would be highly likely and highly unlikely to be in self-
care. For the first equation (see Table 29, Row A), to
maximize the probability that a child would be in self-care,
parental modernity was set at the 75th percentile, maternal
belief that working was good for her child was set at the
25th percentile, maternal somatic symptoms were set at the
25th percentile, maternal full time employment was selected,
white race was selected, and male gender was selected.
Given these levels of the independent variables, the
probability that a child would be in self-care was 87%.

The second equation, designed to minimize the
probability of self-care, was a mirror image of the first
(see Table 29, Row B). The probability of self-
care associated with low parental modernity, high maternal

belief in the value of work for her child, high levels of somatic symptoms, no employment, black race, and a female child was 13%.

The probability that a child will be in self-care has also been evaluated by holding constant, at the median, the three variables that were not significant predictors of self-care in the logistic regression analysis and systematically varying the remaining three variables. The results of this analysis are presented in the lower third of Table 29. For example, the effect of the mother's employment status on the probability that black (0) boys (1) will be in self-care is estimated in the first three rows. Black boys whose mothers do not work have a 0.44 probability of being in self-care. Black boys whose mothers work part-time have a 0.56 probability of being in self-care, while black boys whose mothers work full-time have a 0.67 probability of self-care. These results can be contrasted with the effect of maternal employment status on the likelihood that white (1) boys (1) will be in self-care. For white boys, the corresponding values associated with maternal employment status are 0.68, 0.77, and 0.84. Therefore, white boys are approximately 20% more likely to be in self-care at each maternal employment level than black boys.

Table 30 presents the results of a similar analysis that was completed for the four-variable composite model on

Table 30: The Effect of the Independent Variables in Composite Model 2
on the Probability that a Child Will be in Self-Care
Black Subsample Only (n=100)

	YKPMTOT X1	Y3SOMAT X2	GENDER X3	Y3PEOPLE X4
Range			n	
Min.	-1.7386	1.0000	1(50)	2
Max.	2.5000	3.1333	2(50)	9
Percentile				
25%	-0.3011	1.4670	1	3
50%	0.1875	1.9330		4
75%	0.5909	2.4670	2	5
Mean	0.1747	1.9419	1.50	4.31

Effect of Selected Levels of Independent Variables on
Probability of Selfcare

	YKPMTOT X1	Y3SOMAT X2	GENDER X3	Y3PEOPLE X4	Z	p(y=1)
A	0.5909	1.467	1	3	1	0.7314
B	-0.3011	2.467	2	5	-2	0.1673

Systematic Variation in GENDER and Y3PEOPLE

0.1875	1.933	1	1	1	0.7557
0.1875	1.933	1	2	1	0.7055
0.1875	1.933	1	3	1	0.6498
0.1875	1.933	1	4	0	0.5896
0.1875	1.933	1	5	0	0.5267
0.1875	1.933	1	6	-0	0.4629
0.1875	1.933	1	7	-0	0.4003
0.1875	1.933	1	8	-1	0.3408
0.1875	1.933	2	1	-0	0.4666
0.1875	1.933	2	2	-0	0.4038
0.1875	1.933	2	3	-1	0.3441
0.1875	1.933	2	4	-1	0.2889
0.1875	1.933	2	5	-1	0.2393
0.1875	1.933	2	6	-1	0.1959
0.1875	1.933	2	7	-2	0.1587
0.1875	1.933	2	8	-2	0.1275

$Z=3.58131+(.353514X1)+(-.517008X2)+(-1.26329X3)+(-.255612X4)$
$P(Y=1) = 1/[1 + \exp(-Z)]$

the 100 subjects in the black subsample. The same
information about the range, minimum and maximum values,
means, and 25th, 50th, and 75th percentiles of the variables
appears in the top half of the table. When values of the
independent values are selected to maximize the probability
that a child will be in self-care, the resulting
probability, 73%, is lower than the 91% probability among
the full sample. That probability of finding a child in
self-care occurs when parental modernity is high, maternal
somatic symptoms are low, gender is male, and number of
people in the household is low.

When the values are selected to minimize the
probability of self-care, the probability, 17%, is slightly
higher than the similar analysis for the full sample. This
probability of self-care is associated with low parental
modernity, a high level of maternal somatic symptoms, a
female child, and a household size of 5. For the systematic
variation analysis presented in the bottom third of this
table, the non-significant predictors are again held
constant at the median, while interesting values of the
significant variables are evaluated.

CHAPTER FIVE

Summary and Conclusions

Summary of Objectives, Methodology, and Results

Objectives

The objectives of this study were to:

1. Describe patterns of use of self-care among a group of families already participating in a longitudinal study of maternal-child interaction.

2. Propose a limited conceptual model to explain family choice of self-care.

3. Develop and test the efficacy of a set of mathematical models predicting use of self-care during the school-week, using the sample of families in the study mentioned above. The mathematical models to be tested were based on the conceptual model proposed, within the limits imposed by the data available and the size of the sample used in the longitudinal study.

Methodology

The study described in this paper was conducted as part of a larger, longitudinal study of maternal-child interaction directed by Dr. Earl Schaefer of the University of North Carolina at Chapel Hill. Three hundred twenty-two women in the last trimester of pregnancy who were receiving prenatal care through the Guilford County Health Department

agreed to participate in the study in 1975 and 1976. The
mothers were recontacted periodically for further data
collection. Data from home-based maternal interviews during
the child's kindergarten and third-grade school years were
used as independent variables in this study.

Data on use of self-care were gathered during school-
based interviews from the nine- and ten-year-old children.
Attrition from the original sample was due primarily to
inability to contact the mothers in the sample. A few
mothers refused to continue to participate at each stage of
the study, but the fact that they received some payment
encouraged participation. A small number of mothers who
participated in the interview had missing or unusable data
on the variables used in this study. A very small number of
children refused permission for the interview after their
mothers had granted it. There were 191 families in the
final sample for this study.

A review of the literature on family use of self-care
was conducted to identify key variables involved in maternal
choice to leave a child of nine or ten at home without an
adult caretaker. A conceptual model was developed proposing
that characteristics of the family environment,
characteristics of the mother, her perception of
characteristics of her child, and her perception of
characteristics of the environment would significantly
predict the probability of use of self-care.

The conceptual model is adapted from the work of several family theorists. Bronfenbrenner's work on the development of ecological models of family processes and the further adaptation of this framework by Belsky provide the basic concepts. Cain and Hofferth (1989) have proposed a four-component explanatory model of parental choice of self-care that is very similar to the model tested in this study. Finally, Kohn's work on differing parental value systems associated with social class, particularly as elaborated by Gecas (1979), has informed the construction of the explanatory model of self-care proposed here. The model and the proposed specific relationships of the variables to one another are described in Chapters One and Two.

The variables available in the Schaefer data set that most closely approximated the independent variables posited in the proposed conceptual model were identified, and their suitability for inclusion in the analysis to be conducted for this study was evaluated. The major consideration used for selection was lack of missing data. In several cases, there was missing data on variables that were of interest theoretically. Use of these variables would have reduced the sample size to unacceptable levels. The thirteen variables selected were race, gender, the number of people in the household, maternal employment status, maternal marital status, maternal parental modernity, maternal belief

that her working is good for her child, maternal valuing of child's conforming behaviors, maternal somatic symptoms, maternal concerns about neighborhood safety, maternal perceptions of child's obedience, maternal perceptions of child's independence, and the number of siblings of the index child in the home.

The 191 cases in the sample to be analyzed were divided into three levels of self-care: (1) no reported experience with self-care, (2) sporadic experience with self-care, (3) regular experience in self-care. Levels 1 and 3 were used to form a dichotomous outcome variable, use of self-care, to be used as the dependent variable in the prediction models to be tested. Sample size for these two levels of self-care was 129.

Had the sample size been large enough, it would have been desirable to enter all selected variables into a single prediction equation. Given that only 129 cases had complete data available for all independent and dependent variables, it was necessary to eliminate some independent variables from the final prediction model to be tested. Two approaches were employed. First, each independent variable was entered separately into a logistic regression prediction model for the full sample of 129, for the black subsample of 100, and for the white subsample of 29. Second, variables were grouped into four preliminary prediction models containing two to four independent variables. These two

approaches were used to determine the six best predictors of self-care. These six predictors were then entered into a composite logistic regression prediction model. For comparison, composite models were also developed for the black subsample (four predictors) and for the white subsample (three predictors).

Results

The single-variable prediction models identified gender (male), maternal somatic symptoms (negative relationship), and maternal parental modernity (positive relationship) as the variables most highly related to use of self-care for the black subsample. The four preliminary prediction models identified the same three variables as the strongest predictors and added a fourth: number of people in the household (negative relationship).

For the white subsample, the single-variable prediction equations identified maternal employment status (positive relationship), number of siblings (negative relationship), and maternal belief that her working is good for her child (negative relationship) as the strongest predictors. Because of small sample size, no preliminary prediction analyses were conducted for the white subsample.

For the full sample, only the four preliminary prediction models were tested; that is, single-variable prediction models were not used. Six variables met the

significance criterion (p < 0.10) that had been established by the author. The variables were: maternal parental modernity (positive), maternal belief that her working is good for her child (negative), maternal somatic symptoms (negative), race (white), gender (male), and maternal employment status (positive).

Three of the six variables entered into the logistic regression prediction equation for the full sample of 129 were significantly associated with use of self-care: gender, maternal employment status, and race. Thus, a white, male child with a working mother was more likely to be in self-care than was a black, female child with an unemployed mother. The overall model was also significant (p < 0.001), suggesting that the probability that a child would be in self-care was at least partially related to these variables. There were, however, important differences between the results for the black and white subsamples that modify this general statement.

Two of the four variables entered into the composite prediction equation for the black subsample were significant. These variables were gender and number of people in the household, a variable that had not met the selection criterion for entry into the full-sample model. By far the more powerful of these two was gender. The overall model was also significant, indicating that gender and (to a far lesser extent) number of people in the

household successfully predicted use of self-care among the black subsample.

All three of the variables entered into the composite model for the white subsample remained significant predictors of use of self-care. Maternal employment status (positive relationship), number of child's siblings (positive relationship), and maternal belief that her working is good for her child (negative relationship) all met the pre-established criterion for significance. The overall model was also significant. The results of this analysis must be regarded with caution, however, because the sample size of 29 is approximately half the minimum recommended size for an equation with three predictors.

Conclusions, Limitations, and Recommendations

Conclusions

There are several approaches to evaluating the results of this study that will be undertaken in this discussion. First, the predictive power of the final models for the full sample, blacks only subsample, and whites only subsample will be addressed. Second, the degree of validation obtained for the Model of Determinants of Self-care that guided this study (See Figure 3, Chapter One) will be assessed. Third, implications for support or non-support of Belsky's Process Model of the Determinants of Parenting (See Figure 1 in Chapter One) will be discussed.

Predictive Power of the Models. Approximately 50% of the children in the full sample could have been correctly classified into self-care/no self-care categories by chance alone, since the size of the two groups (never = 67, regular = 62) was quite similar. The 6-variable composite model for the full sample was able to correctly classify 69% of the children, an improvement over chance of approximately 19%.

Another way of assessing the predictive power of the prediction equation is to calculate a "pseudo R^2" statistic, as proposed by Aldrich and Nelson (1984). This statistic is calculated by dividing the chi-square for the model by the total sample size plus the chi-square. The result of that calculation for the full-sample composite model is 0.147. This statistic can be interpreted as meaning that approximately 15% of the variance in use of self-care is captured by that model. Aldrich and Nelson caution that both approaches to assessing the "goodness of fit" of the model have severe limitations.

The composite model for the black subsample shows a similar level of predictive power as the full-sample model. This model was able to correctly classify the self-care status of 68% of the children and had a pseudo R^2 statistic of 0.14, or approximately 14% of variance predicted.

The composite model for the white subsample correctly classified 86% of the children by self-care group and had an associated pseudo R^2 of 0.40, or 40% of variance predicted.

These results suggest that this is an excellent model, but the small sample size for whites also suggests extreme caution in interpreting these results, since it is well known that R^2 values based on very small samples are subject to severe "shrinkage" upon cross-validation.

Degree of Support for Proposed Model of Parental Self-Care Decision-Making. A major assumption of the model of self-care proposed in this dissertation is that parental child-rearing practices are intended to create particular child characteristics. Parental use of self-care for school-age children is a child-rearing practice that may reflect parental goals for their children and is almost certainly multiply determined. That is, it is very unlikely that necessity is the only explanation for parental use of self-care. Previous research (Kohn, 1963; Gecas and Nye, 1974) has found that parent's desired characteristics tend to vary systematically by social class and perhaps by ethnic group.

The results of this study give limited support to the decision-making model that was proposed to account for the use of self-care among this low-income, primarily black sample. The variables that are significantly associated with use of self-care in the final composite model for the full sample are (in order of importance) gender, maternal employment, and race. The first and third of these

variables fell under the category of maternal preferences (See Figure 3 in Chapter One). The second variable was analyzed with the variables in the cost, or necessity, category. The author has proposed that the true role of parental employment in the causal chain is to serve as a trigger for consideration of the use of self-care for a child who has achieved perceived age of maturity for self-care. (It is assumed that perceptions of parents, children, siblings, and the family's social network would influence perceived age of maturity.) For the purposes of this study, maternal employment was analyzed with the other variables in the maternal preference category.

For the full sample, there were no variables from the "quality of the arrangement" category that were significant. Maternal employment was the only variable from the cost, or necessity, category that was significant, and none of the specific measures of maternal preferences (other than race and gender) was significant.

For the black subsample, the variables that were significantly associated with use of self-care were gender and number of people in the household. Gender, as mentioned earlier, is a variable representing parental preferences but it is likely that this variable is particularly strongly influenced by the social network. Number of people in the household is presumed to represent the number of alternative caretakers available.

Many authors (Stack, 1974; Staples, 1974; Hill,1972; McAdoo, 1980) have mentioned the heavy reliance of black families on a strong, reciprocal aid network. Often, their comments are specifically extended to child care. For example, Blackwell and Hart (1982) state that blacks are not inclined to use formal child care services, but rely on extended family and "other arrangements" (p. 45). It is unclear whether this is due to economic necessity or to cultural preference. The striking tendency of black families in this study to maintain adult supervision of girls (as represented by lower rates of self-care use) may mean several things. If one assumes, with Kohn and others, that parental behavior is aimed at developing perceived desirable traits in children, then low use of self-care might be the way in which blacks support group-oriented behavior among females. It is also possible that blacks perceive more environmental dangers for girls than for boys.

It is important to note that there was no relationship between maternal employment and use of self-care among blacks. Given that the model in Figure 3 proposes that parental employment is a primary trigger for consideration of self-care for school-age children, this result suggests that there may be different triggers for whites and for blacks.

Another interpretation was suggested by an additional
logistic regression analysis. The author analyzed the data
for the 93 families in the black subsample that did not
include the seven cases where children reported lengthy
periods of time in self-care. Lengthy time in self-care was
defined as more than 400 minutes in self-care over the
course of three days. As noted in Chapter Four, for these
seven families, use of self-care was much less strongly
associated with maternal employment than it was for the full
sample. The results of logistic regression analysis with
the seven cases removed (n=93) showed that maternal
employment was still not a significant predictor of use of
self-care. It is of some interest to note, however, that
the significance level of maternal employment (p < 0.12)
came much closer to meeting the criterion for significance
(p < 0.10) with the smaller sample of blacks (n=93) than it
had with the larger sample (n=100).

These results suggest that it might be worthwhile to
investigate the reasons parents have for using self-care.
If one takes excessive length of time in self-care as a
possible measure of neglect, it would appear that the subset
of parents using self-care in a way that may be neglectful
may have different characteristics than the majority.
Obviously, differentiating families on these characteristics
would be likely to provide useful information about the
developmental implications for children of neglectful use of

"self-care". Even though all seven families that were removed from this analysis were black, the author does not assume that neglecting use of self-care, if such it is, is necessarily associated with race. The child who reported the highest time in self-care (900 minutes over three days), and was removed from the original analyses, was a white female. The numbers of subjects in these groups are too small for any purpose but suggesting tentative research hypotheses.

The best predictors of self-care for the white subsample were maternal employment, number of siblings, and low maternal belief that working is good for her child. The role of maternal employment as a trigger to consideration of self-care use has been discussed. The effect of increased number of siblings was to increase use of self-care among white children. This relationship was in the hypothesized direction. The direction of the hypothesis was based on the assumption that mothers would get more social support for leaving several children together (not "alone") than they would for leaving a single child in self-care.

The direction of the relationship of the third variable, maternal belief that working is good for her child was opposite to that hypothesized. It is possible that mothers who are working may be more sensitive to the potential negative effect of their absences on their children

while mothers who are not working may be more sensitive to the negative effect of their lack of employment on themselves, their families, and their economic resources.

Correspondence With Belsky's Process Model of Determinants of Parenting. Belsky's (1984) process model of the determinants of parenting has served as the underlying framework for the analyses conducted in this study (see Figure 1). Due to sample size limitations and measurement limitations, there has been no attempt to investigate the reciprocal interactions among the endogenous variables in the model. In addition, there has been no attempt to account for developmental history, the exogenous variable in the Belsky model or for child development, the ultimate outcome variable of the model.

Rather, the key factors that Belsky posits are related to parental behavior (parental personality, marital relations, work, social network, and child characteristics) are included in the models developed to predict use of self-care. Because of the need to select the most effective predictor variables (due to sample size limitations), preliminary analyses were conducted to eliminate the least effective predictors.

As Belsky suggests, his categories of determinants do not appear to be equally influential in affecting parental decision-making. In his 1984 article, he states that parental personality comes first in the hierarchy of

influence, contextual subsystems of support comes second, and child characteristics come third. The results of this study suggest that there are some exceptions to this formulation as well as some agreement.

Race was strongly influential in determining use of self-care: enough so that separate analyses were conducted for blacks and whites. If Belsky is correct that the most influential factor in determining parental behavior is maternal personality, then the effect of race on use of self-care would have to be conceptualized as operating through maternal personality in order to be consistent with Belsky. It is also possible to conceptualize the effect of race on use of self-care as operating through the social network. In that case, the strong influence of race contradicts Belsky's hypothesis that contextual subsystems of support would be of secondary influence.

Among blacks, the major influence on use of self-care came from what might be presumed to be a characteristic of the child: gender. However, this is a child characteristic that might also be presumed to represent values of the social network, more than a recognition of the individual characteristics of a particular child. Indeed, there is little else to suggest that, for either blacks or whites, individual characteristics of the child were particularly influential in determining whether self-care was to be used.

Belsky would suggest that characteristics of the child are least influential of the determinants of parenting behavior, and thus, this result is also consistent with one of his major contentions.

The next most influential determinant of self-care among blacks, number of people in the household, is probably related to parental child-rearing values through maternal personality and the social network. This result suggests that, when alternatives to self-care are available (in the form of additional available caretakers), black mothers prefer not to use self-care as a means of child supervision when they are not at home. However, it is not possible to state this conclusively, as it is not known whether the mother has made specific arrangements with members of the household to supervise the children or whether they simply are present enough of the time to affect the self-care experience of the children. This result also suggests that, among blacks, the influence of maternal values and the social network clearly supercede that of "necessity", as represented by the employment status of the mothers.

The remaining two variables that were entered into the final composite prediction model for blacks because they were significant predictors of self-care in univariate analyses were maternal parental modernity and maternal somatic symptoms. Neither was significantly related to use

of self-care in the context of the other two variables in the model.

Parental modernity falls under Belsky's category of maternal personality. It had originally been included in the model, along with maternal valuing of child's conforming behavior, to test Kohn's hypothesis that those characteristics are associated with parental strategies that maximize conforming behaviors on the part of children. Use of self-care was hypothesized as a parenting practice that might be employed more often by parents who believed their children could be left alone safely and who desired to maximize qualities of independence in their children. Therefore, it was presumed that use of self-care would be positively related to parental modernity and negatively related to maternal valuing of child's conforming behavior.

The absence of the hypothesized relationship may be due to an actual lack of relationship, but this result may also be due to other factors. These parenting values have been shown in other research (Kohn, 1977; Gecas & Nye, 1974) to differentiate middle from lower socioeconomic status groups. Further, these values have been shown to be associated with paternal occupation and are hypothesized as attempts to teach children behaviors associated with successful job performance. Different behaviors are associated with occupational success for different classes of occupations. Middle-class occupations emphasize independence and problem-

solving while lower-class occupations emphasize conformity.

The lack of association with self-care in this sample may have several causes: there may not be enough variability on these variables to adequately test their association with self-care because of the homogeneous nature of this sample; self-care may be more strongly related to other determinants in this sample; self-care may not have the hypothesized relationship to parental values and behavior.

The recent article by Luster, Rhoades, and Haas (1989) states that there are numerous studies that replicate the findings of Kohn that parental values are related to social class, but few demonstrating that parental values are related to parental child-rearing strategies. The results of the Luster et al. study demonstrate such a relationship. The results of this study are more consistent with an assertion that there are racial differences in parental use of self-care as a child-rearing strategy than that there are class differences. Until this assertion is tested on a sample with greater variance on socioeconomic status, however, it is open to question.

There is no overlap among the variables that predict self-care for the black subsample and those that predict self-care for the white subsample. The three variables that were entered into the final composite model for the white

subsample, mother's employment status (positive
relationship), number of index child's siblings (positive
relationship), and mother's belief that her working is good
for her child (negative relationship) are all significantly
related to use of self-care in this multivariate model. For
the white subsample, the primary determinant of self-care is
coming from work (or the necessity model). Next in
importance is the number of siblings, from the fitness of
the child and environment model. This variable is likely to
fit best into Belsky's social network category, since the
tendency to leave children in self-care when more than one
child is present is likely to represent a view that receives
more social support than leaving a child alone. Least
influential, though still significant, is mother's belief
that working is good for her child, from the maternal
attitudes model. Again, this variable is likely to
represent the effect of the social network, with some
mediating effect through maternal personality (in part, the
crystallization of prior exposure to the social network).

The results of this study give most support to a
conclusion that self-care is determined by different factors
for white and black families. For blacks, it is not
associated with working, but with gender and alternative
caretakers. For whites, it is associated with a working
mother, the number of other siblings, and mother's belief
that she should be working less than she is. This last

result is counter-intuitive, but the direction of causality may be that mothers who use self-care are more sensitive to the potential negative effects of that care arrangement and their working arrangements on their children. However, it cannot be emphasized too often that conclusions based on analyses of data from the small white subsample are highly speculative.

The results of the study support the notion that the child's characteristics are not the most important determinant of parental behavior. In this study, the more important determinants seemed to be related to the requirements of work roles and family structure. Maternal employment, number of siblings, and number of people in the household can all be seen as falling into those categories. Gender of the child, so important in predicting self-care among the black subsample, is less a characteristic of the individual child than a value shared by the social network. The final variable related to self-care among whites, mother's belief that her working is good for her child (negative relationship), is probably most highly associated with the values of the social network, but may possibly reflect maternal personality.

Limitations. This study is limited in several very important ways. As has been mentioned repeatedly, the sample size was such that the analyses could not be used to

fully test the conceptual model proposed. In addition, the variables that were available were not ideally suited nor designed to test this model, since this was a secondary analysis of data gathered for another purpose. A problem related to this is the frequent need to use a single question as an indicator of the construct to be measured. It is highly likely that this has contributed to substantial errors of measurement, and reliability and validity problems.

A known problem of measurement has to do with the accuracy of the child's report of self-care. Some of the children seemed to be good historians, able to report accurately their use of self-care, the time they spent over the past three school-days, and the age of onset. A minority of children gave answers that seemed potentially less accurate. It is likely that the child's report is more accurate for use of self-care than time in self-care.

The study would undoubtedly have been enhanced had it been possible to compare these results with a middle-class sample. While the results do not support many of the research hypotheses, the limitations of the sample may be responsible.

Recommendations. Future research should be designed to address the following:

1. More detailed understanding of parental choice of self-care is needed. Particularly, work on developing and

testing explanatory models is essential.

2. It is important to differentiate neglectful "self-care" situations from appropriate ones. Any research establishing a basis for doing so would be welcomed by those responsible for children's wellbeing.

3. Developmental outcomes of self-care for children are unclear. Further research using person/process/context models (following Bronfenbrenner's exhortations) would clarify the role of variables that mediate self-care and outcome for children.

4. Research should also include study of outcomes for parents, other family members, and communities. There is some evidence that use of self-care may stress parents, extended families, and communities more than individual children.

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APPENDIX A

RELEVANT QUESTIONS FROM PROTOCOL FOR

CHILDREN'S THIRD-GRADE INTERVIEWS

Section K
Time in Self-Care

Now for some questions about your time away from school.

1. Have you ever stayed at home when no one else was there?

                              (GO TO 2A) Yes ____

                              (GO TO 2B) No ____

2A. How old were you when you first stayed home alone?

                              (GO TO Q3) _____
                                          Years

2B. Have you ever stayed at home when only young people
    were there? Perhaps just brothers and sisters?

                              (GO TO 2C) Yes ____

                          (GO TO SECTION L) No ____

2C. How old were you when you first stayed home without
    a grown-up?
                              (GO TO 03) _____
                                          Years

3. When you stay at home without a grown-up, how many other
   children or young people are usually there?

                                           _____
                                            Total

4. Who are they and how old are they? (RECORD RELATIONSHIP
   AND FOLLOW WITH AGE USING WHOLE NUMBERS.)

Relationship   Age

_____   ____

_____   ____

_____   ____

_____   ____

_____   ____

_____   ____

_____   ____

13A

5. Did you spend any time at home (STATE MOST RECENT
   SCHOOL DAY) when a grown-up wasn't there? (RECORD
   SCHOOL DAY AND LENGTH OF TIME ALONE IN SPACES
   PROVIDED BELOW, REPEATING FOR THE NEXT MOST RECENT
   SCHOOL DAY AND THE NEXT.)

Most recent school day _____

Length of time alone:
   before school   _____

   after school   _____

   evening/night   _____

Next most recent school day _____

Length of time alone:
   before school   _____

   after school   _____

   evening/night   _____

Next most recent school day _____

Length of time alone:
   before school   _____

   after school   _____

   evening/night   _____

6. Is this the way it usually is?

                                        Yes ____

                    (IF NO, DESCRIBE)   No ____

13B

7. When you stay at home without a grown-up, does a
    grown-up usually check to see how things are going?

                                        Yes ____

                            (GO TO Q9) No ____

8. How do they check? (CHECK ALL APPLICABLE)

                            Adult calls ____

                         Adult drops by ____

                      Child calls adult ____

                      Neighbor drops by ____

                  Child goes to neighbor ____

                       Other (SPECIFY) ____

9. Does a grown-up tell you what to do while they are
    away? (INCLUDE RULES, INSTRUCTIONS, ACCEPTABLE AND
    UNACCEPTABLE BEHAVIORS)

                                        Yes ____

                                        No ____

10. (LIST WHAT THE GROWN-UP TELLS THE CHILD TO DO OR
    NOT TO DO.)

APPENDIX B

RELEVANT QUESTIONS FROM PROTOCOL FOR

MATERNAL KINDERGARTEN INTERVIEWS

PLEASE NOTE:

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

These consist of pages:

175-177,   Relevant Questions From Protocol For
             Maternal Kindergarten Interviews

179-192,   Relevant Questions From Protocol For
             Maternal Third-Grade Interviews

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APPENDIX C

RELEVANT QUESTIONS FROM PROTOCOL FOR

MATERNAL THIRD-GRADE INTERVIEWS