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THE EFFECTS OF SELF-CARE AND ADULT-CARE ARRANGEMENTS ON
ELEMENTARY SCHOOL CHILDREN'S ADJUSTMENT, ACHIEVEMENT, AND
ATTENDANCE

The University of North Carolina at Greensboro

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THE EFFECTS OF SELF-CARE AND ADULT-CARE ARRANGEMENTS
ON ELEMENTARY SCHOOL CHILDREN'S ADJUSTMENT,
ACHIEVEMENT, AND ATTENDANCE

by

Martha Watson Stewart

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the Faculty of the Graduate School at
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Doctor of Philosophy

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Approved by



Dissertation Adviser

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.

Dissertation
Adviser

Hyun Rodin

Committee Members

Richard M. Jager

Nancy White

Rebecca M. Smith

March 28, 1986

Date of Acceptance by Committee

March 28, 1986

Date of Final Oral Examination

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STEWART, MARTHA WATSON, Ph.D. The Effects of Self-Care and Adult-Care Arrangements on Elementary School Children's Adjustment, Achievement, and Attendance. (1986) Directed by Dr. Hyman Rodman. 117 pp.

This study investigated the effects of self-care and adult-care arrangements on elementary school children's social and psychological adjustment, achievement on standardized tests, and school attendance. The study also explored related research questions on interaction effects of age and neighborhood type with the care arrangement on the dependent variables. The sample included 24 matched pairs of children, chosen at each of three schools stratified by location--suburban, urban, and rural--for a total sample of 72 matched pairs (144 children). Results of the study indicated self-care children had significantly higher scores on a school maladaptation scale and more days absent from school than adult-care children. Additional differences were noted, although none reached significance. Self-care children had higher levels of fear, anxiety, and depression, and lower scores on standardized reading and math tests than adult-care children. Interaction effects occurred in a random pattern that indicated no consistent significant effects of either age or neighborhood type, separately or conjointly, with the care arrangement on the dependent variables.

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CHAPTER I

INTRODUCTION

Large numbers of children between the ages of 7 and 13 are regularly in self-care ("latchkey") arrangements before or after school. Data from several current sources estimate there are approximately 7 million children in this age group who take care of themselves without direct adult supervision during some part of the working day (Seligson, Genser, Gannett, & Gray, 1983; U.S. Department of Labor, 1982). Some believe these figures may be conservative; the use of self-care arrangements may be underreported due to the stigma attached to this type of care arrangement for young children (Long & Long, 1983; McMurray & Kazanjian, 1982). Others believe 7 million may be an inflated estimate derived from nonrepresentative samples (Rodman, Pratto, & Nelson, 1985). Authorities agree, however, that there are currently large numbers of families using self-care as an alternative to formal child care arrangements and that these numbers are likely to continue and probably to grow.

Changes in the American family in recent years have contributed to the growing numbers of children taking care of themselves for part of the working day. First, there have been dramatic increases in the number of working mothers with school-age children. Second, a high divorce rate has

increased the number of children living in single-parent homes, usually with lowered family income. Finally, the decline of the extended family has reduced the number of available adult caregivers in the child's environment (Galambos & Garbarino, 1983). These changes have occurred across all types of families and are predicted to continue in American society. Therefore, the phenomenon of children caring for themselves before and after school will probably continue to grow.

Child and family professionals agree that there are large and growing numbers of children in self-care arrangements, and they also agree that we know very little about the nature of these arrangements or their impact on parents, children, and families. Although there have been many articles in popular magazines and a number of discussions on TV talk shows, there are fewer than five empirical studies published in scientific journals on the effects of self-care arrangements.

Studies of self-care children during the past 15 years have focused on measuring the effects of these arrangements on children's academic achievement, social adjustment, and levels of fear and anxiety. Results are conflicting and inconclusive.

Research on the effects of self-care arrangements on children that has received the most media coverage has been that of Lynette and Thomas Long. Their studies of

elementary school children living in urban apartments indicated that children who stayed alone had higher levels of fear, boredom, and loneliness than children who had adult caregivers (Long & Long, 1982, 1983). The somewhat sensational aspect of the Longs' study, children alone and afraid, has fanned the controversy of self-care arrangements for young children, traditionally an emotion-laden issue in the United States.

Although the empirical evidence is scant, many people feel, intuitively, that self-care arrangements are not appropriate for young children. David Elkind, author of The Hurried Child (1981), argues that children forced to look after themselves are asked to assume too much responsibility too early in life. Elkind indicates the legacy of self-care may be a higher incidence of depression and more personality problems later in life. James Garbarino (1984) reiterates the theme of significant loss for those children whose parents cannot afford to indulge them in the "luxury of childhood."

Other researchers contend that we do not know enough about self-care arrangements to generalize about the effects of children staying alone. The certainty of large numbers of children using this type of arrangement has been established. Trends indicate these numbers will increase as more women enter the work force. Clearly, there is a need for more research, carefully designed and conducted, on the effects of self-care arrangements on young children.

The purpose of this dissertation is to examine the relationships between self-care arrangements and elementary school children's social and psychological adjustment, achievement on standardized tests, and school attendance. The study which provided the data base for this dissertation attempted initially, through a screening questionnaire, to determine the extent of these arrangements in three elementary schools in the Charleston County School District in Charleston, South Carolina. The schools were stratified by location--one in a rural neighborhood, one urban, and one suburban. The main function of the screening questionnaire was to collect information on types of care arrangements used by the children in each school. The screening questionnaire also provided data on background variables necessary to select matched pairs.

A sample of 24 matched pairs of children was chosen at each of the three schools, yielding a total sample of 72 matched pairs (144 children). Each pair included a child who was regularly in a self-care arrangement, either alone or with a sibling under 18, and a child who was regularly under adult supervision before and after school. The pairs were matched on five variables: age, sex, race, family composition, and social status.

Two instruments designed to measure levels of anxiety and depression in children were administered to each sampled child. Each child's teacher was asked to complete

a behavior rating scale that measured the teacher's perception of the child's level of school maladaptation. Also, an interview was held with each sample child. The children were asked to discuss their activities between the time they came home from school and the time they had dinner. Children were also asked about their fears, and how they felt about their care arrangements. Finally, data were collected from school records on sample children's performances on standardized tests and school attendance.

This study was designed to profit from the problems of earlier research in this area and to build upon existing knowledge. The results of the study should make a contribution to knowledge about the effects of self-care, a care arrangement used by large and growing numbers of children.

CHAPTER II

REVIEW OF THE LITERATURE

Related Research and Professional Opinions on the Effects of Self-Care

Research on the effects of self-care arrangements for school-age children is recent and scant. In related research, many studies have investigated the effects of maternal employment on children (D'Amico, Haurin, & Mott, 1983; Heyns, 1982; Hoffman, 1979; Kamerman & Kahn, 1981). The consensus of a majority of these studies is that a mother working outside the home has neither positive nor negative effects on her children's social, emotional, or cognitive development. Most of the research in this area has either assumed the alternative of continuous child care by another adult for children of working mothers or ignored the issue of child care arrangements.

There has also been some research on the effects of day care for preschool children (Belsky & Steinberg, 1978; Etaugh, 1980; Rutter, 1981; Scarr, 1984). This research failed to substantiate the anticipated adverse effects of this alternative child care arrangement on children and on parent/child relationships.

"Latchkey" or "doorkey" children are mentioned as early as 1944 in an article by Zucker on the effects of mothers

forced into the work force by the war effort. He thought adequate child care arrangements were essential to ameliorate the adverse effects of maternal employment. Without adult supervision, he thought these war-bred latchkey children would grow into the problem adolescents of the 1950s and the poorly-adjusted parents of the 1960s.

Zucker's 1944 opinions seem very much at home among the views of many current child and family professionals as well as those of parents and teachers of young children. Although research is scarce, opinions are not, and the majority of them are negative concerning the effects of children taking care of themselves before and after school.

Edward Zigler, former Director of the Office of Child Development, has asserted (1983, p. 38) that "latchkey arrangements represent a serious abdication of responsibility toward our nation's children." Psychologist David Elkind (1981) worries that latchkey children are expected to assume too much responsibility at too young an age. This situation creates excessive stress and may inhibit true maturity in adulthood. Pennsylvania State University psychologist, James Garbarino (1984), suggested that parents are depriving children of childhood by requiring them to take care of themselves.

This imperative for the child to perform a role needed by the parents conflicts with the concept of childhood as directed by the child's needs and timetable, and reaches its critical point in the latchkey experience, where extreme maturity demands are often made in the name of financial well-being and/or parental psychic needs. (p. 14)

Ruth Bill (1985), principal of Bridgeview Elementary School, in a feature article of the National Association of Elementary School Principals' publication, lists the following characteristics of what teachers are beginning to call a "latchkey syndrome":

more or less constant feelings of fear; a heightened feeling of social isolation, a lowered sense of self-worth, resentment of parents, and especially as they grow older, a drift toward activities that, even when they are creative, demand less social interaction.
(p. 3)

These are opinions unsubstantiated by research, but as the opinions of professionals who work with children and families, these views are important catalysts in initiating research in the area. Studies designed to test these "arm-chair theories" and hunches should provide policy-makers with a more accurate picture of the nature and effect of self-care arrangements. To what extent, thus far, does research clarify the effect of self-care arrangements on children?

Effects of Self-Care on Academic Achievement and Social Adjustment

Woods (1972) studied 108 black fifth-grade ghetto children from Philadelphia whose mothers were employed outside the home. Her primary purpose was to determine whether those children who reported they looked after themselves during the summer and before and after school differed from children who received almost continuous adult supervision.

The differences were measured by 106 dependent variables relating to school achievement, intelligence, personal and social adjustment, family relationships, health, school and community behavior.

In her sample, Woods found more girls (N=27) than boys (N=20) who reported being unsupervised during the summer months. Findings for the boys indicated that there were too few significant differences between the supervised and unsupervised groups to conclude that the differences were related to supervision or lack of it during the summer months. For the girls, Woods found 10 significant differences between the two groups. Unsupervised girls exhibited deficits in school achievement and intelligence quotients, along with a larger number of social problems, compared to their peers who had adult supervision. Woods concluded that there was a possibility of "developmental hazards" associated with maternal employment if substitute supervision was not provided.

In addition to the findings on the effects of supervised and unsupervised child care arrangements, Woods found positive relationships between mothers' attitudes toward their work and child care roles; the quality of mother/child relationships; and their children's personality, achievement, and intelligence. Also, the full-time employment of mothers had positive relationships with their children's social and

academic performance. Woods hypothesized from her study that social class may have an impact on the relationship of maternal employment and the development of children.

Gold and Andres (1978) built on Woods' findings and investigated differing sex-role concepts, academic achievement, and personality adjustment in children of employed and unemployed mothers by social class. Their subjects were 223 ten-year-old Canadian children who came from two-parent families with no reported parental death or divorce. They found that for the children in this sample, academic achievement was related to the socioeconomic status of their families, their gender, their mothers' employment status, and the amount of interaction with their fathers. Middle-class boys with employed mothers had lower scores on language and math achievement tests than did the other middle-class children. Direct estimates of paternal interaction with the children were positively associated with self-reported grades and educational aspirations for most children with employed mothers.

There were 20 children in the Gold and Andres study whose mothers were employed and who were left unsupervised during part of each work day; 16 were boys, 11 from middle-class and 5 from working-class families. When the researchers divided sons of employed mothers into two groups, supervised and unsupervised, the boys in self-care were consistently lower on all measures of social adjustment and academic

achievement. However, none of these differences reached significance.

Rodman et al. (1985) investigated the impact of self-care arrangements and school-age children's social and psychological functioning. Rodman et al. introduced the term "self-care" for a child care arrangement in which the child usually stays alone or with a younger sibling after school. The term self-care was preferred because of the negative connotations associated with "latchkey" and "unsupervised."

Subjects for the study were 26 matched pairs of fourth graders and 22 matched pairs of seventh graders who attended a consolidated school district in the Piedmont section of North Carolina. Pairs were matched on these variables: age, sex, race, family composition (one parent vs. two parents), and social status.

For the children in this study, there were no statistically significant differences between the matched samples on the measures of social and psychological functioning. The authors concluded that "the growing public and professional concern about the negative effects of self-care . . . arrangements . . . is premature and may not be warranted" (Rodman et al., 1985, p. 417).

A study by Ginsburg, Milne, Myers, and Ellman (1983) for the Office of Planning, Budget, and Evaluation of the U.S. Department of Education used a very large sample (two

national data bases) that included children from kindergarten through high school. They found that children of working mothers and single-parent families scored lower on reading and math achievement tests than did children in two-parent families with a mother at home. In two-parent homes, a working mother is associated with lower achievement for students in elementary and secondary schools. This finding holds even when controlled for family income and mothers' education. For example, white high school students whose mothers worked full-time throughout their school years (preschool to high school) scored up to nine percentile points lower than do students whose mothers have never been employed.

This contradicts earlier research findings based on equally large samples and may have implications for children who are without adult supervision during the hours they are at home and their parents are working. However, this study made no distinction between children in different types of care arrangements. Therefore, caution should be exercised in interpreting these results and their relevance for children in self-care.

Effects of Self-Care on Children's Levels of Fear

Several researchers have found that children in self-care arrangements seem to have higher levels of fear than do those who are supervised by adults. As part of the National

Survey of Children conducted by researchers at Temple University in 1976, 2,258 boys and girls aged 7 to 11 were asked if they were worried when they had to stay at home without a grown-up to watch them. Thirty-two percent of the boys and 41% of the girls replied "Yes." Fifteen percent of these children reported that they worried "a lot" and 13% said that they were frequently scared. When these same children were asked which of several possibilities made them feel afraid, the issue most frequently identified was that somebody bad might get into their house (62% of the boys and 75% of the girls) (Zill, Gravaeus, & Woyshner, 1977).

Long and Long (1982) interviewed 53 self-care children and 32 children who had adult supervision before and/or after school. The children who cared for themselves expressed higher levels of fear and loneliness than did the children who were cared for by an adult. These children were also better informed regarding self-care and emergencies than were children under adult supervision.

Follow-up research by the Longs (1983) produced similar findings. Children caring for themselves had higher levels of fear, loneliness, and boredom than did children who were looked after by an adult. The most frequently mentioned fear of these children was that someone would break into their homes and hurt them while they were alone. Siblings appeared to be a mixed blessing. Although their presence

lowered the frequency of fear reported by children, a significant number of children cared for by older siblings also were afraid of being harmed by them.

The Longs' (1982, 1983) research was conducted with elementary school children who lived in a relatively threatening environment (urban apartments). Research conducted in a safe, rural setting on fifth- and seventh-graders found no significant differences between self-care and adult-care groups in mean academic achievement, classroom orientation, fear level, or school adjustment. The researchers suggested that community and neighborhood characteristics may encourage or inhibit successful adjustment of children to self-care arrangements (Galambos & Garbarino, 1983).

Problems in Available Research

Gaps and weaknesses are numerous in the available research on the effects of self-care arrangements. Often there are methodological problems such as small and select samples that preclude generalizing from the findings of the study to all children in self-care. Of course, the studies relied on volunteer participation from their subjects which may have resulted in biased samples. Additionally, there are no longitudinal studies, and most of the available research does not include data on how long their subjects have been in their care arrangements. Most important, empirical studies are scarce and the results are equivocal.

Some of the studies (Gold & Andres, 1978; Woods, 1972) used such small and select samples that generalizing from their results to all children in self-care is inappropriate. The Longs' (1982) research found high levels of fear among self-care children. Their study, which received extensive media coverage, was conducted on fairly small numbers of self-care (53) and adult-care (32) black children who lived in a relatively threatening environment (urban apartments). No matching was done, and the "authors acknowledge a lack of precision and possible interviewer bias" (Rodman et al., 1985, p. 414). The only other published study which has compared levels of fear in self-care and adult-care children (Galambos & Garbarino, 1983) studied older children, fifth and seventh graders from a rural neighborhood, and found no significant differences between groups.

Three studies have compared the school performances of self-care children with those of children in adult care. Their results are conflicting. Galambos and Garbarino (1983) found no significant differences in academic achievement between the groups; Woods (1972) found significantly lower academic achievement for unsupervised girls but not for boys; and Gold and Andres (1978) found lower levels of achievement for unsupervised boys, but none reached significance.

The Ginsburg et al. (1983) study which found lower scores on standardized tests for children of working mothers did not investigate the effect of care arrangement on children's performance. However, these results potentially raise disturbing questions about the performance of children whose mothers work and who also stay without supervision during part of their nonschool hours.

Four studies (Galambos & Garbarino, 1983; Gold & Andres, 1978; Rodman et al., 1985; Woods, 1972) investigated the social adjustment of children in self-care and adult-care arrangements. Two found lower levels of social adjustment for self-care children; two found no differences. Clearly, more research on the effects of self-care arrangements on children's social and psychological adjustment is needed. Psychologist David Elkind (1981) and Principal Ruth Bill (1985) predict disturbing tendencies to social maladjustment for children who are regularly without adult supervision.

This review found no published research on the effects of self-care arrangements on school attendance. Hawkins (1983) reported that "some" self-care children interviewed in her survey of 1,000 families with children aged 5 to 14 said that they "skipped school" (p. 181). Effective-schools research has established that "time on task" is correlated with academic achievement (Harnischfeger & Wiley, 1976). Therefore, if a care arrangement affected significantly the amount of time children spent at school, a consequent influence on school performance would be expected.

Statement of the Problem

The purpose of this study was to investigate the relationships between self-care and adult-care arrangements for elementary school children and the children's social and psychological adjustment, achievement on standardized tests, and school attendance.

Directional Hypotheses

Based on the literature reviewed above, the following directional hypotheses were proposed:

There will be differences between children in self-care arrangements and children in adult-care arrangements in their social psychological adjustment; in their achievement on standardized tests; and in school attendance:

1. Children in self-care arrangements will report higher levels of fear, anxiety, and depression than will children in adult-care arrangements.
2. Children in self-care arrangements will be perceived by their teachers as having higher levels of school maladaptation than will adult-care children.
3. Children in self-care arrangements will have lower mean NCE scores in reading and math than will children in adult-care arrangements.

4. Children in self-care arrangements will have more days absent from school recorded for the 1983-84 school year than will children in adult-care arrangements.

Related Questions

Related questions included:

1. Is the child's age level, in interaction with his or her care arrangement, related to his or her social and psychological adjustment, achievement on standardized tests, and school attendance?
2. Is the child's neighborhood type, in interaction with his or her care arrangement, related to his or her social and psychological adjustment, achievement on standardized tests, and school attendance?
3. Are there interactions among the three independent variables--care arrangement, age, and neighborhood type--in relationships with the dependent variables?

CHAPTER III

PROCEDURES

Research Design

Seventy-two pairs of children were used as subjects in this study. One of each pair was in a self-care arrangement before and/or after school hours and the other in an adult-care arrangement during the same time frame. The two children in each pair were matched on variables that have been identified as important in studies of the effect of maternal employment on children (D'Amico et al., 1983; Etaugh, 1980; Hoffman, 1979). These variables were sex, age group (7, 8, or 9; and 10, 11, or 12), race, family composition (one parent or two parents), and social status. Social status was determined primarily by parents' occupation, with parents' education as a secondary consideration. If two parents were employed, the parent having the higher level job was used for matching. The matched pairs were selected so that they were equally distributed over two levels of age (7 to 9; and 10 to 12) and three neighborhood types (urban, suburban, and rural). The result was a 2 (age) x 3 (neighborhood type) factorial design with matched subjects across pairs of cells. The number in each cell was 12, resulting in a total sample of 144 children.

Description of Variables

The principal independent variable used to define the two groups in this study was the type of care arrangement, self-care or adult-care, used during nonschool hours by the sampled subjects. A self-care arrangement was defined as one in which a child spends at least 5 hours a week, before and/or after school, alone or with a sibling under 18. An adult-care arrangement is one in which a child is regularly under adult supervision, either by a parent or another adult, before and after school hours.

A second independent variable was type of neighborhood--urban, suburban, or rural--in which sampled children lived. Neighborhood type was determined by the location of each child's school and zoned attendance area.

A third independent variable was the age group of each sampled child. Children from Grades 2, 3, 4, and 5 were divided into younger (ages 7 to 9) or older (ages 10 to 12) age groups for purposes of matching and data analyses.

The first group of dependent variables in this study measured sampled subjects' social and psychological adjustment. These measures were collected from two sources: the sampled children and their teachers.

1. Each sampled child provided a self-report of level of anxiety and depression by responding to two questionnaires designed to measure these variables in elementary school children.

2. Additionally, each sampled child responded to an interview question concerning his or her fear level (Question 33 on the Children's Interview, Appendix I).
3. Each child's teacher completed a behavior rating scale that measured teachers' perceptions of children's levels of school maladaptation.

Another set of dependent variables measured sampled subjects' performances on standardized tests. These measures came from two sources: The Comprehensive Test of Basic Skills (CTBS), administered in April, 1984, to children in the second, fourth, and fifth grades; and the Basic Skills Assessment Program (BSAP) administered in May, 1984, to children in Grades 1 through 3. In order to compare performances of children from Grades 2 through 5, reading and math BSAP scale scores from second and third graders and reading and math CTBS scale scores from fourth and fifth graders were converted to mean NCE (Normal Curve Equivalent) scores. It should be noted that conversion of scores on different tests to the NCE scale does not guarantee their equivalence, particularly if the tests are administered to children in different grades (Jaeger, 1978, 1979).

The final dependent variable was a measure of the sampled subjects' attendance during the 1983-84 school year. This measure came from each sampled subject's school

attendance office and indicated the total number of days absent and present during the school year.

Description of Subjects and Subject Selection

Seventy-two matched pairs of children were used as subjects in this study. In the initial phase of subject selection a screening questionnaire (Appendix A) was sent home with all children in Grades 2-5 at each of three selected elementary schools. The study was conducted in three time frames, one for each school, beginning with the suburban school, then the urban school, and finally the rural school. The screening questionnaire solicited information on the type of care arrangement(s) used before and after school for each child who took the questionnaire home. From the information on the screening questionnaires, children were identified as being in self-care arrangements if they were staying alone or with a sibling under 18, before or after school hours. Children were identified as being in adult-care arrangements if they were supervised by an adult (related or nonrelated) before and after school hours.

Table 1 summarizes the response rates and the percentage of children identified as using self-care and adult-care arrangements, by grade level, at the three elementary schools. The response rates were quite high, especially for the younger children. The instrument provided the information necessary to identify the types of care arrangements being used.

Table 1

Number of Children, Response Rates, and Percentage of
Children Using Self-Care and Adult-Care Arrangements
by Neighborhood Type and Grade Level

Neighborhood Type	N	Response Rate (# of Returned Questionnaires)	Percentage Using Care Arrangements (N)	
			Self-Care	Adult Care
<u>Suburban</u>				
Grade 2	101	96% (97)	8% (8)	92% (89)
3	103	92% (95)	17% (15)	83% (80)
4	102	84% (86)	27% (23)	73% (64)
5	96	81% (78)	27% (22)	73% (55)
Total	402	89%(356)	19% (68)	81%(288)
<u>Urban</u>				
Grade 2	81	84% (68)	9% (6)	91% (62)
3	68	85% (58)	17% (10)	83% (48)
4	74	82% (61)	13% (8)	87% (53)
5	74	77% (57)	14% (8)	86% (49)
Total	297	82%(244)	13% (32)	87%(212)
<u>Rural</u>				
Grade 2	119	92%(109)	16% (17)	84% (92)
3	121	75% (91)	12% (11)	88% (80)
4	121	87%(105)	16% (17)	84% (88)
5	81	73% (59)	27% (16)	73% (43)
Total	442	82%(364)	17% (61)	83%(303)

In the suburban school (the first school in which the study was conducted), self-care arrangements were used almost twice as often with children in Grades 4 and 5 as in Grades 2 and 3. A similar relationship between grade level and use of self-care had been observed in an earlier study (Stewart 1981) and was therefore anticipated at the urban and rural schools as well. The decision was made to group children by age ranges--7 to 9, and 10 to 12--to enhance the possibility of obtaining the desired sample size of 12 younger and 12 older children in self-care.

As seen in Table 2, at the suburban school, grouping by age ranges rather than grade levels resulted in approximately equal numbers of children in each of the two age groups. Interestingly, as shown in Table 1 and Table 2, the relationship between grade level and use of self-care was not as clearly established at either the urban or rural school.

In the urban school, the same number of children were in self-care arrangements in Grades 2 and 3 combined as in Grades 4 and 5 combined; grouping by ages rather than grade level resulted in two more children in self-care in the younger group than in the older group. In the rural school, there were five more children in self-care arrangements in the upper two grade levels than in the lower two; grouping by ages resulted in 11 more children in self-care arrangements in the older group than in the younger.

Table 2

Percentage of Children Using Self-Care and Adult-Care
Arrangements by Neighborhood Type and Age Group

Neighborhood Type	<u>Percentage Using Care Arrangement (N)</u>	
	Self-Care	Adult-Care
<u>Suburban (N)</u>		
Ages 7 (51)	12% (6)	88% (45)
8 (86)	8% (7)	92% (79)
9 (82)	22% (18)	78% (64)
Total (219)	14% (31)	86% (188)
10 (76)	30% (23)	70% (53)
11 (44)	27% (12)	73% (32)
12 (12)	17% (2)	83% (10)
Total (132)	28% (37)	72% (95)
<u>Urban</u>		
Ages 7 (25)	8% (2)	92% (23)
8 (55)	16% (9)	84% (46)
9 (49)	12% (6)	82% (43)
Total (129)	13% (17)	87% (112)
10 (62)	10% (6)	90% (56)
11 (36)	19% (7)	81% (29)
12 (7)	29% (2)	71% (5)
Total (105)	14% (15)	86% (90)
<u>Rural</u>		
Ages 7 (50)	18% (9)	82% (41)
8 (79)	9% (7)	91% (72)
9 (82)	11% (9)	89% (73)
Total (211)	12% (25)	88% (186)
10 (89)	19% (17)	81% (72)
11 (50)	24% (12)	76% (38)
12 (14)	50% (7)	50% (7)
Total (152)	24% (36)	76% (116)

The number of children in self-care available to participate in the study was reduced by eliminating the data for children who had not been in self-care for at least 6 months and/or for at least 5 hours per week. Fourteen children were eliminated due to missing information on their screening questionnaires. (Parents who had telephones were contacted, if possible, to obtain this information.) Six children in self-care could not be matched with children in adult-care and could not be included for that reason. At the suburban school, 37 self-care children were matched on the five variables previously described with 37 adult-care children. At the urban school, there were 30 matched pairs, and at the rural school there were 33.

Permission letters (Appendix E) were sent home to parents of both groups of children. Parents who did not respond were called and encouraged to allow their children to participate in the study. At the suburban school, four parents denied permission for their children to participate; at the urban school, two parents chose not to allow their children to be in the study; and at the rural school permission was denied by three parents. This further reduced the available pairs to 33 at the suburban school, 28 at the urban school, and 30 at the rural school. The final selection of sample subjects was made on the basis of having a matched pair and having parental permission for both children in the pair, then by choosing pairs in which the self-care child

had been in the arrangement for the longest amount of time, for the greatest amount of time per week. Table 3 presents the demographic distribution of the matched sample.

As seen in Table 3, the demographic distribution varied by matching characteristic and by neighborhood type. The distribution of males and females was fairly even, although there were more boys than girls in the sample overall and at the urban and rural schools. The greatest discrepancy between the percentage of boys and girls in the sample was at the urban school which had 63% males and 32% females.

The racial composition of the sample by neighborhood type approximates the proportion of black to white children in each of the neighborhood schools. In the suburban school, there were about four times as many white children (79%) as black (21%) in the sample. In the entire school, the racial composition of the student body was 62% white and 38% black.

At the urban school the sample included only one white child who was included by mistake and became the one instance of imprecise matching throughout the sample. This child was assumed to be black as there were no other white boys in his age group at his school and only two white females. In the entire school, the racial composition of the student body was 96% black and 4% white. Imagine the surprise of the researcher (and the dismay) upon coming face-to-face with the other half of the matched pair and seeing the

Table 3

Characteristics of Self-Care and Adult-Care Children by Neighborhood Type

Characteristics	School (Neighborhood Type)						Totals	
	Suburban		Urban		Rural			
	Self-Care	Adult-Care	Self-Care	Adult-Care	Self-Care	Adult-Care	Self-Care	Adult-Care
Sex:								
Male	46% (11)	46% (11)	63% (15)	63% (15)	58% (14)	58% (14)	56% (40)	56% (40)
Female	54% (13)	54% (13)	32% (9)	32% (9)	42% (10)	42% (10)	44% (32)	44% (32)
Race:								
Black	21% (5)	21% (5)	96% (23)	100% (24)	67% (16)	67% (16)	61% (44)	63% (45)
White	79% (19)	79% (19)	4% (1)		33% (8)	33% (8)	39% (28)	37% (27)
Age Group:								
7, 8, 9	50% (12)	50% (12)	50% (12)	50% (12)	50% (12)	50% (12)	50% (36)	50% (36)
Mean age	8.0	8.2	8.2	8.5	8.1	7.9	8.1	8.2
10, 11, 12	50% (12)	50% (12)	50% (12)	50% (12)	50% (12)	50% (12)	50% (36)	50% (36)
Mean age	10.6	10.4	10.8	10.2	10.8	10.6	10.7	10.7
Family Composition:								
One parent	8% (2)	8% (2)	75% (18)	75% (18)	36% (9)	36% (9)	40% (29)	40% (29)
Both parents	92% (22)	92% (22)	25% (6)	25% (6)	64% (15)	64% (15)	60% (43)	60% (43)
Family Social Status:								
Occupation level								
high 1	42% (10)	46% (11)	8% (2)	4% (1)	4% (1)	4% (1)	18% (13)	18% (13)
↑ 2	50% (12)	42% (10)	46% (11)	42% (10)	54% (13)	42% (10)	50% (36)	42% (30)
3	8% (2)	12% (3)	4% (1)	17% (4)	13% (3)	25% (6)	8% (6)	18% (13)
↓ 4			12% (3)	4% (1)			4% (3)	1% (1)
low 5			30% (7)	33% (8)	29% (7)	29% (7)	20% (14)	21% (15)
* Mother's education								
High school or less	17% (4)	33% (8)	48% (11)	67% (16)	63% (15)	75% (18)	42% (30)	59% (42)
Above high school	83% (20)	67% (16)	52% (12)	33% (7)	37% (9)	25% (6)	58% (41)	41% (29)
* Father's education								
High school or less	22% (5)	27% (6)	50% (4)	70% (7)	81% (13)	81% (13)	47% (22)	54% (26)
Above high school	78% (18)	73% (16)	50% (4)	30% (3)	19% (3)	19% (3)	53% (25)	46% (22)

*Smaller n's resulted from data omitted on questionnaire.

mistake. As the urban self-care sample was limited in size with no possibility of another matched pair, the decision was made to retain this pair despite the race difference. During analysis, the white child was treated as though he were black.

At the rural school, there were twice as many black children (67%) as white (33%) in the sample. In the entire school, the racial composition of the student body was 64% black and 36% white. Overall, the total sample also had about twice as many black children (61%) as white (39%). For combined student bodies of the three schools, the racial composition was 63% black and 37% white.

Family composition varied considerably by neighborhood type. Most (92%) of the children in the suburban school were from two-parent homes; 25% of the urban children lived with both parents. Again, the rural school composition by family was similar to that of the total sample. Sixty-four percent of the children in the rural school and 60% of the children in the total sample were from two-parent homes.

As expected, family social status also varied considerably by neighborhood type. The suburban school parents were much more likely to be in higher level occupations and to have more education than parents at either the urban or rural schools. The rural school parents had the lowest levels of education, males lower than females. Overall, two-thirds of the parents in the total sample were in the

top two occupation levels and about half of the parents (56%) had above a high school education. Mothers of children in self-care arrangements from all three neighborhood types had higher levels of education than mothers of children in adult-care arrangements.

Data Collection Procedures

The initial phase of data collection was accomplished by administering the screening questionnaire described above. The questionnaire was preceded by a presentation at each school's PTA and an advance letter (Appendix B) sent a week prior to the questionnaire. The purpose of the presentation, the advance letter, and the cover letter (Appendix C) that accompanied the questionnaire was to explain the purpose of the study and to encourage parental support and cooperation.

Questionnaires and cover letters in envelopes addressed to the parents of each child were delivered to teachers on a Monday morning. Teachers were given letters of instruction, and children in their classes were offered an incentive of an ice cream party if they could return 75% of their questionnaires by the following Friday afternoon (Appendix D).

The second phase of data collection began after the sample was selected and was scheduled to take place during a single week at each school. On a Monday each teacher was given a manila envelope containing Behavior Rating Scales for the sampled children in her class (Appendix F). Teachers

were asked to return the completed instruments by Friday of that week.

Also on a Monday, sampled children were brought to a testing/interview room in small groups, no larger than four for the younger children and no larger than eight for the older children, to take the Children's Depression Inventory (Appendix G) and the Revised Children's Manifest Anxiety Scale (Appendix H). The items on these instruments were read aloud to children in the second grade. Children in Grades 3 through 5 read for themselves and proceeded at their own pace. On Tuesday through Friday of the same week, children came, individually, to the same room and responded to a structured interview (Appendix I) administered by the researcher. On both occasions children were informed of their right to refuse to participate in the study and also to refuse to respond to any of the items on the paper and pencil instruments and the interview.

Data on sampled children's performances on CTBS and BSAP were available through the school district's Office of Research and Evaluation. Mean NCE scores were obtained from a South Carolina conversion table also provided by the district Office of Research and Evaluation.

Data on sampled children's attendance during the 1983-84 school year were collected at the end of the year from the attendance clerk in each school.

Description of Instruments for Data Collection

The screening questionnaire used in this study is a revised version of a questionnaire used in an earlier study of the effects of self-care arrangements on elementary school children (Stewart, 1981). The main purpose of the questionnaire was to provide information on parents' employment status, the type of care arrangement(s) used before and/or after school, and demographic data on parents' occupation, level of education, and marital status. This information was needed to select and match sampled subjects. A second purpose of the screening questionnaire was to collect information to be used at some future time on why parents used the care arrangement(s) they did, and their level of satisfaction with the care arrangement(s) they used. A third purpose of the screening questionnaire was to collect information on parents' attitudes about after-school care programs in Charleston County. This information was offered to the school system as an incentive for allowing the study to be conducted in the district.

In selecting the following instruments, the researcher was advised by Albert Finch, Ph.D., a clinical psychologist who is currently a professor in the Department of Psychiatry at the Medical University of South Carolina. For some years Dr. Finch has specialized in studying fear, anxiety, and depression in children and is widely published in this area. He also has done extensive research on instruments designed to measure these constructs in children.

The Revised Children's Manifest Anxiety Scale (RCMAS, Reynolds & Richmond, 1978) is the revised form of the Castaneda, McCandless, and Palermo (1956) Children's Manifest Anxiety Scale. It is a self-report, pencil and paper instrument that consists of 28 anxiety items and 9 lie items (measures of a child's tendency to give socially desirable responses). A child completing the inventory is instructed to respond either "yes" or "no" to statements, depending on whether they are or are not like him/her. Reliability and validity data on this scale are available from several sources.

Using a sample of Nigerian children, Pela and Reynolds (1981) reported internal consistency coefficients in the .80 range. Test-retest reliabilities with this population were reported to be $\geq .90$ for both sexes. Reynolds (1981) reported a 9-month test-retest correlation of .68 for a sample of 534 fourth, fifth, and sixth graders. In an ambitious investigation of the RCMAS, Reynolds and Paget (1982) collected RCMAS data on 4,972 children between the ages of 6 and 19. Coefficient alpha reliability estimates are provided for subjects by age, sex, and race with the majority $\geq .80$.

Less extensive data are available on the validity of the RCMAS. Reynolds (1980) administered both the RCMAS and the State-Trait Anxiety Inventory for Children (STAIC, Spielberger, 1973) to 42 children referred for psychological

evaluation. A significant correlation ($r = .85$, $p \leq .001$) was found between the RCMAS and the A-trait scale of the STAIC. No significant correlation was present between the RCMAS and the A-state scale of the STAIC. The author concluded, therefore, that evidence did exist for the RCMAS as a measure of chronic manifest anxiety. In a second study, Reynolds (1982) reported that the RCMAS anxiety score correlated with teacher observations of behavior problems in the classroom.

Normative data are available on a large sample of subjects (4,972 children), and are reported by age, sex, and race combinations (Reynolds & Paget, 1982).

The Children's Depression Inventory (CDI, Kovacs, 1982) is the most widely used self-report measure of depression in children (Finch & Rogers, 1984). Each of the 27 items on this paper and pencil instrument consists of three sentences designed to range from normality, to definite symptoms, and finally to fairly severe and clinically significant symptoms. Each item is scored from 0 to 2 resulting in a range of scores from 0 to 54. Reliability and validity data are available from a variety of studies.

Kovacs (1980/81), using a sample of 860 normal school children, found an internal consistency coefficient of .87 for the CDI. Saylor, Finch, Spiro, and Bennett (1983) found the CDI to have an internal consistency index of .94 with normal and .80 with emotionally disturbed children.

Item-total score correlations also indicate that the CDI is internally consistent. According to Kovacs (1982), these values are generally good, with some variation being found between populations. Test-retest reliability has been investigated over different intervals with various populations. Friedman and Butler (1979) found a test-retest reliability of .72 with normal children. Mieizitis, Friedman, Butler, and Blanchard (1978) found a value of .84 over a 9- to 13-week interval.

Saylor et al. (1983) also included data on the split-half reliability of the CDI with both normal and emotionally disturbed children. Spearman-Brown corrected correlations for even/odd items were .61 and .74 for the two populations, respectively. Corresponding values were .73 and .57 for the first half/second half for these groups.

Regarding the validity of the CDI, Kovacs (1982) found that with a sample of 51 emotionally disturbed subjects, there was a high correlation of CDI scores with self-esteem scores ($r = .59$, $p < .0001$). Green (1980) and Friedman and Butler (1979) reported similar results with normal children.

Kovacs (1982) found that CDI scores can discriminate between emotionally disturbed children diagnosed as depressed and those who are not and also between depressed and normal children. However, Saylor et al. (1983) did not find a difference between CDI scores of children rated as depressed or not depressed by their individual therapists.

For the purposes of this study, one item of the 27-item CD Inventory was deleted. Item 9 in the original instrument read:

I do not think about killing myself.
I think about killing myself but I would not do it.
I want to kill myself.

The decision was made by the researcher and her advisor that the possible suggestibility of even one of the children taking the inventory to the notion of suicide made this item undesirable. After conferring with Dr. John Weisz at the University of North Carolina at Chapel Hill, and Dr. Finch, the item was omitted.

The AML Behavior Rating Scale (Cowen, Dorr, Izzo, Madonia, & Troust, 1971) is a brief (11-item) teacher rating scale that evaluates children's problem classroom behaviors. The AML provides a total score indicating level of school maladaptation and subscale scores for Acting Out, Moody (shy, withdrawn) and Learning difficulties.

Using a sample of 209 first- and second-grade boys and girls, Cowen, Dorr, Clarfield, Kreling, McWilliams, Pokracki, Pratt, Terrell, and Wilson (1973) found that test-retest reliabilities for the AML ranged from .80 to .86 for the total scale (.85) and the three subscales (A = .86, M = .80, L = .83). Overlap among the scales was low to moderate (subscale correlations ranged from .37 to .55) and factor analysis confirmed three separate and distinct dimensions.

Dorr, Stephens, Pozner, and Klodt (1980) summarized a series of studies of the technical merit of the AML Scale used to indicate school maladaptation in a sample of 684 fourth-, fifth-, and sixth-grade children. They found internal consistency coefficients for A, M, L, and Σ AML were all $>.80$. Factor analysis indicated the A, M, and L scales had considerable independence from one another.

In an attempt to assess the AML's concurrent validity AML scores have been compared with information collected from different, lengthier teacher-completed screening instruments (Cowen, Dorr, & Orgel, 1971); clinical evaluations of children's adjustment problems (McWilliams, 1971); groups of children referred and not referred by teachers to a mental health program for children with problems adjusting to school (Cowen et al., 1973). These studies found support for the AML as an efficient discriminating measure of school maladjustment. Durlak, Stein, and Mannarino (1980) investigated the behavioral validity of the acting-out subscale of the AML and found significant positive correlations between AML ratings and individual behavior codes that indicated disruptive off-task and social approach behaviors.

The final instrument used in this study is the Children's Interview (Appendix I) which consists of 40 items, a mixture of closed and open-ended questions. The interview questions were asked by the researcher and each sampled child's responses were recorded on the form. Each interview took approximately 30 minutes.

The interview instrument incorporated key questions from the Long and Long (1983) instrument used in data collection for their second study. Adaptations of the Longs' instrument were introduced in part to make the interview applicable to adult-care as well as self-care children. Other modifications were made in eliminating questions thought to be potentially offensive to parents concerning their parent/child relationships. Final modifications were made by adding new questions concerning items of interest to this study not found on the Longs' instrument.

The interview included questions designed to corroborate information on the screening questionnaire concerning the child's before- and after-school care arrangements. Other questions solicited information on how the child would respond to potential problems that could happen in any home, activities in which they engaged during the hours between school and dinner, isolation imposed by restrictions on the child, the child's feelings about his or her care arrangements, specific fears, fear responses, and frequency of fears. Due to the focus of this dissertation, not all of the data resulting from these questions will be analyzed.

Statistical Analyses

The following null hypotheses were tested: There will be no differences between children in self-care arrangements and children in adult-care arrangements in their social and

psychological adjustment; in their achievement on standardized tests; and in school attendance. As noted above, the following directional alternative hypotheses were explored;

1. Children in self-care arrangements will report higher levels of fear, anxiety, and depression than will children in adult-care arrangements.
2. Children in self-care arrangements will be perceived by their teachers as having higher levels of school maladaptation than will children in adult-care arrangements.
3. Children in self-care arrangements will have lower mean NCE scores in reading and math than will children in adult-care arrangements.
4. Children in self-care arrangements will have more days absent recorded for the 1983-84 school year than will children in adult-care arrangements.

To test the directional hypotheses, students' t tests for matched samples were used. Tests involved the entire sample and were conducted separately for each dependent variable.

Additional analyses were performed to explore the related research questions:

1. Is a child's age level, in interaction with his or her care arrangement, related to social and psychological adjustment, achievement on standardized tests, and school attendance?

2. Is a child's neighborhood type, in interaction with his or her care arrangement, related to social and psychological adjustment, achievement on standardized tests, and school attendance?
3. Are there interaction effects among the three independent variables--care arrangement, age, and neighborhood type--in their relationships with the dependent variables?

A two-way ANOVA was used to examine the possibility of two- and three-way interaction effects with the three independent variables: care arrangement, age level, and neighborhood type. The independent variables in the 2 x 3 ANOVA were age (2 levels) and neighborhood type (3 types). The dependent variables were the difference scores between matched children in self-care and children in adult-care on each measure of social and psychological adjustment, achievement on standardized tests, and school attendance.

A two-way ANOVA with difference scores as dependent variables was used instead of a standard three-way ANOVA because the sample was made up of matched pairs with matching on the principal treatment variable, care arrangement, instead of randomly assigned, independent subjects. The analyses were performed as would be expected; the interpretation, as explained in Chapter IV, was based on the nature of the data and the use of difference scores as the dependent variables (Brogan & Kutner, 1980).

CHAPTER IV

RESULTS

Data analyses used to test the null hypotheses against the directional alternative hypotheses and to explore the related research questions proposed in this dissertation were consistent with standard practice, yet innovative. In order to correctly analyze and interpret data collected on a matched sample, the following procedure was used. First, difference scores on the dependent variables were computed for subjects in pairs to create new dependent variables. For each matched (i th) pair, the score on the dependent variable of the self-care subject (X_{i2}) was subtracted from the score on the dependent variable of the adult care subject (X_{i1}). This computation ($X_{i1} - X_{i2}$) produced a difference score (D_i) that was treated as a new dependent variable in two standard analyses.

To test the null hypothesis of no difference between children in self-care arrangements and children in adult-care arrangements (that the population mean difference is equal to zero) and to explore the directional alternative hypotheses, standard t tests for matched or related samples were used. Tests involved the entire sample and were conducted separately for each dependent variable. The results of the tests indicate the significance of the "main effect" due to the child's care arrangement.

To explore the related research questions of possible interaction with the three independent variables care arrangement (2 types), age level (2 levels), and neighborhood type (3 types)--, standard 2 by 3 full factorial analyses of variance were used. However, since matching was done on the first factor, care arrangement, using 2 x 2 x 3 ANOVAs with dependent variables measured on individual children were considered inappropriate for these data.

Instead, two-way ANOVAs with difference scores as dependent variables were used to examine the possibility of two- and three-way interactions between the three independent variables: care arrangement, age level, and neighborhood type. The independent variables in the 2 x 3 ANOVAs were age (2 levels) and neighborhood type (3 types). The dependent variables were the difference scores between matched children in self-care and children in adult-care on each measure of social and psychological adjustment, achievement on standardized tests, and school attendance.

Because difference scores were used as the dependent variables, interpretation of the results of these analyses must be modified as follows: Effects labeled "Mean" are actually main effects for care arrangement. A main effect reported for age is actually an indication of a two-way interaction between age and care arrangement; a main effect reported for neighborhood is actually an indication

of a two-way interaction between neighborhood type and care arrangement; an interaction effect reported between age and care arrangement is actually an indication of a three-way interaction among care arrangement, age, and neighborhood type.

Table 4 presents the means of the difference scores on each dependent variable. These scores were computed by subtracting the score of the self-care child from the score of the adult-care child in each matched pair. Therefore, a negative mean indicates the self-care group had the higher mean score; a positive mean indicates the adult-care group had the higher mean score. Students' t tests for matched samples were completed with Type I error levels of 0.05 and 0.01.

Using a one-tailed t test to test the directional hypotheses, self-care children had significantly higher scores on the school maladaptation scale than adult-care children. Self-care children also had significantly more days absent recorded for the 1983-84 school year than did adult-care children (see Table 4). Although no other differences reached significance, all but one of the remaining mean difference scores were in the expected direction. Children in self-care had higher levels of fear ($m = -1.139$), anxiety (-1.125), and depression ($m = -1.65$), lower mean NCE scores on reading ($m = 7.375$) and math ($m = 1.361$), and more days absent ($m = -1.507$) than children in adult care.

Table 4

Mean Difference Scores for Self-Care and
Adult-Care Children^a

Variable	N (# matched pairs)	Mean	S.E.	<u>t</u>
Fear	72	-1.139	2.663	-.428ns
Anxiety (RCMAS)	72	-1.250	1.046	-1.195ns
Depression (CD Inventory)	72	-1.652	1.134	-1.457ns
School Maladaptation (AML)	72	-3.056	1.212	-2.520**
Reading NCE	72	7.375	4.666	1.581ns
Math NCE	72	1.361	4.374	.311ns
Attendance (Days Absent)	69	-1.507	.840	-1.794*

ns-- $p > 0.05$

* $0.01 < p < 0.05$

** $p < 0.01$

^aResults are based on a one-tailed t test, since the alternative hypotheses were directional.

Note. A negative mean difference score indicates self-care children had the higher score; a positive mean difference score indicates adult-care children had the higher score.

Additional analyses were performed to explore the related research questions:

1. Is a child's age level, in interaction with his or her care arrangement, related to social and psychological adjustment, achievement on standardized tests, and school attendance?
2. Is a child's neighborhood type, in interaction with his or her care arrangement, related to social and psychological adjustment, achievement on standardized tests, and school attendance?
3. Are there interaction effects among the three independent variables--care arrangement, age, and neighborhood type--in their effect on the dependent variables?

Tables 5-11 present the results, by dependent variables, of the 2 x 3 ANOVAs that explore the related research questions. Table 12 is a summary of all ANOVA results. These data indicate only one two-way interaction effect, significant at the 0.05 level, between neighborhood type and care arrangement in relation to the dependent variable, Math NCE.

Table 13 presents the results of Tukey's Multiple Comparison Tests, used to test for significant differences between groups. These tests indicate that the mean difference score on Math NCE for rural self-care and adult-care groups differed significantly, at the 0.05 level, from the mean difference score on Math NCE for both

Table 5

ANOVA Results (Age--A by Neighborhood type--N) with
Differences in Fear as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	93.389	1	93.389	0.18ns	0.670
Age	5.556	1	5.556	0.01ns	0.917
Neighborhood Type	1055.028	2	527.514	1.03ns	0.362
A x N	1475.861	2	737.931	1.44ns	0.243
Error	33742.167	66	511.245		

ns-- $p > 0.05$
 * $0.01 < p < 0.05$
 ** $p < 0.01$

Table 6

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in Anxiety as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	112.500	1	112.500	1.63ns	0.205
Age	43.556	1	43.556	0.63ns	0.429
Neighborhood Type	93.083	2	46.542	0.68ns	0.512
A x N	910.028	2	455.014	6.61**	0.002
Error	4544.833	66	68.861		

ns-- $p > 0.05$

* $0.01 < p < 0.05$

** $p < 0.01$

Table 7

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in Depression as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	196.681	1	196.681	2.23ns	0.140
Age	136.125	1	136.125	1.54ns	0.219
Neighborhood Type	159.694	2	79.847	0.90ns	0.410
A x N	448.083	2	224.042	2.54ns	0.087
Error	5832.417	66	88.370		

ns-- $p > 0.05$
 $*0.01 < p < 0.05$
 $**p < 0.01$

Table 8

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in School Maladaptation as
the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	660.548	1	660.548	6.63*	0.012
Age	42.489	1	42.489	0.43ns	0.516
Neighborhood Type	420.816	2	210.408	2.11ns	0.129
A x N	360.905	2	180.452	1.81ns	0.171
Error	6479.266	65	99.681		

ns-- $p > 0.05$
 $*0.01 < p < 0.05$
 $**p < 0.01$

Table 9

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in Reading NCE as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	3916.125	1	3916.125	2.80ns	0.099
Age	19.013	1	19.013	0.01ns	0.908
Neighborhood Type	8751.083	2	4375.542	3.12ns	0.051
A x N	10067.528	2	5033.764	3.59*	0.033
Error	92467.250	66	1401.019		

ns-- $p > 0.05$

* $0.01 < p < 0.05$

** $p < 0.01$

Table 10

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in Math NCE as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	133.389	1	133.389	0.11ns	0.744
Age	612.500	1	612.500	0.49ns	0.485
Neighborhood Type	8225.361	2	4112.681	3.31*	0.042
A x N	6914.583	2	3457.292	2.78ns	0.069
Error	82072.167	66	1243.518		

ns-- $p > 0.05$

* $0.01 < p < 0.05$

** $p < 0.01$

Table 11

ANOVA Results (Age--A by Neighborhood Type--N) with
Differences in Attendance as the Dependent Variable

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Mean	180.208	1	180.208	3.86ns	0.053
Age	147.057	1	147.057	3.15ns	0.080
Neighborhood Type	166.751	2	83.375	1.79ns	0.176
A x N	70.222	2	35.111	0.75ns	0.476
Error	2942.295	63	46.703		

ns-- $p > 0.05$

* $0.01 < p < 0.05$

** $p < 0.01$

Table 12

Summary of Difference Score ANOVA Results forAge (A) by Neighborhood Type (N)

Dependent Variable	Age x Care Arrangement	Neighborhood Type x Care Arrangement	A x N x C
Fear	ns	ns	ns
Anxiety (RCMAS)	ns	ns	**
Depression (CD Inventory)	ns	ns	ns
School Maladaptation (AML)	ns	ns	ns
Reading NCE	ns	ns	*
Math NCE	ns	*	ns
Attendance (Days Absent)	ns	ns	ns

ns-- $p > 0.05$ * $0.01 < p < 0.05$ ** $p < 0.01$

Table 13

Tukey's Multiple Comparison Results for Two-Way (Care Arrangement by
Neighborhood Type) and Three-Way (Care Arrangement, Age, and
Neighborhood Type) Interaction Effects

Variable--Math NCE Multiple Comparisons for Care Arrangement
X Neighborhood Type Interaction

Neighborhood Type	Urban	Suburban	Rural
Mean	-6.83	-5.54	16.46

Variable--Reading NCE Multiple Comparisons for Care Arrangement X Age
X Neighborhood Type Interaction

A X N	A10-12 Urb	A10-12 Sub	A7-9 Rur	A7-9 Urb	A7-9 Sub	A10-12 Rur
Mean	-10.58	-7.92	6.67	6.92	10.08	39.08

Variable--Anxiety (RCMAS) Multiple Comparisons for Care Arrangement x Age
X Neighborhood Type Interaction

A X N	A7-9 Urb	A10-12 Rur	A7-9 Sub	A10-12 Sub	A7-9 Rur	A10-12 Urb
Mean	-6.75	-6.00	-0.50	1.08	1.17	3.50

Note: Means underlined by the same line are NOT significantly different.
Means not underlined by the same line ARE significantly different.
All pair-wise tests at 0.05 level.

the urban self-care and adult-care groups and the suburban self-care and adult-care groups.

As indicated by Table 12, there are also two significant three-way interactions. There is a three-way interaction between care arrangement, age, and neighborhood type, significant at the 0.05 level, for the dependent variable Reading NCE; there is a second three-way interaction, significant at the 0.01 level, for the dependent variable Anxiety as measured by the RCMAS.

Tukey's Multiple Comparison Test indicates the mean difference score for Reading NCE for rural children in Age Group 2 differed significantly, at the 0.05 level, from mean difference scores for Reading NCE for urban and suburban children also in Age Group 2. The mean difference score for Anxiety for urban children in Age Group 2 differed significantly, at the 0.05 level, from the mean difference score for Anxiety for urban children in Age Group 1.

CHAPTER V

DISCUSSION

Summary of Results

This study investigated the relationships between self-care and adult-care arrangements for elementary school children and the children's social and psychological adjustment, achievement on standardized tests, and school attendance. Social and psychological adjustment, achievement on standardized tests, and school attendance were measured by using seven data sources, each of which was treated as a separate dependent variable in data analysis: children's self-reports of level of fear, self-reports of level of anxiety, self-reports of level of depression, reports from teachers on children's degree of school maladaptation, children's mean Reading NCE score, children's mean Math NCE score, and children's number of days absent during the 1983-84 school year. On each of these dependent variables, the null hypothesis tested was that there would be no differences between the performances of children in self-care and children in adult-care arrangements.

Results of the study support rejection of the null hypotheses for two of the seven dependent variables.

It was hypothesized that children in self-care would, on average, be perceived by their teachers as having higher levels of school maladaptation than would adult-care children. Support for this hypothesis was significant at the 0.01 level.

It was also hypothesized that children in self-care would, on average, have more days absent recorded for the 1983-84 school year than children in adult-care. Support for this hypothesis was significant at the .05 level.

It was hypothesized that children in self-care would report higher levels of fear, anxiety, and depression than children in adult care. Mean difference scores between the two groups on these measures did not reach significance. However, the mean difference was in the hypothesized direction.

Children in self-care were hypothesized to have lower mean NCE scores in Reading and Math than children in adult care. The mean difference between the two groups on these measures did not reach significance but were in the hypothesized direction.

There was an interaction effect, significant at the 0.05 level, between neighborhood type and care arrangement on the dependent variable Math NCE. Tukey's Multiple Comparison Test for significant differences between groups indicated the mean difference score on Math NCE for rural self-care and adult-care groups differed significantly from

the mean difference score on Math NCE for both the urban self-care and adult-care groups and the suburban self-care and adult-care groups. Rural children in adult-care arrangements had a higher mean NCE Math score than did rural children in self-care arrangements. In both urban and suburban groups, self-care children had a higher mean Math NCE score than adult-care children.

Additionally, there was a three-way interaction, significant at the 0.05 level, between care arrangement, age, and neighborhood type on Reading NCE. Tukey's Multiple Comparison test for significance between groups indicated the mean difference score on Reading NCE for rural children in Age Group 2 differed significantly from mean difference scores in Reading NCE for urban and suburban children, also in Age Group 2.

There was a three-way interaction effect, significant at the 0.01 level, between care arrangement, age, and neighborhood type for the dependent variable Anxiety, as measured by the RCMAS. Tukey's Multiple Comparison Test indicated the mean difference score for Anxiety for urban children in Age Group 1 differed significantly from the mean difference score for Anxiety for urban children in Age Group 2.

Discussion of Results

Data from this study do not support rejection of the null hypotheses of no differences between children in self-care arrangements and children in adult-care arrangements

except for the dependent variables school maladaptation and attendance. The findings on the other dependent variables were consistently in the expected direction, but none reached significance. Interaction effects occurred in a random pattern that does not indicate a distinct effect of either age or neighborhood type on the dependent variables. Further discussion and an attempt to interpret these findings is in order.

Several methodological problems present in earlier research in the area of effects of self-care arrangements were avoided by this study and cannot be cited as possible explanations of results. The sample size of 144 was adequate, carefully matched, and evenly distributed over two age levels and three distinct neighborhood types to test for interactive effects of these two variables. The response rate was unusually high (over 80% in each school) and the cooperation of parents in allowing their children to participate in the study was also at a high level. Almost all (96%) of the parents of adult-care and self-care children gave permission for their children to be in the study. The children were also cooperative in their participation. Although given the option to refuse to be in the study or to not respond to any question, written or oral, all children participated and only once did a child opt not to answer a question.

All testing sessions and all interviews were conducted by one researcher. Data collection occurred during a 6-week period, within a 1- to 2-week period at each of the three schools, and followed a consistent procedure. Minimal disruptions of normal school routines were observed during the times of data collection.

Two internal validity issues pertinent to experimental research that appear relevant to understanding the results of this study are the potency of the treatment and the length of time it was applied. The potency of the treatment, i.e., the care arrangement, was difficult to discern and varied considerably within the boundaries set by the research design. Table 14 summarizes the variety of care arrangements that the sampled children experienced.

According to the definition used in this study, children were said to be in self-care if they stayed alone or with a sibling under 18 for at least 5 hours a week and had been doing so for at least 6 months. Table 14 indicates that in all three schools, about 67% or 2/3 of the sample children in self-care were staying with an older sibling who was between 13 or 14 years of age. The percentage of children staying alone ranged from a low of 17% at the rural school to a high of 29% at the suburban school. The percentage of children in the younger age group (7, 8, 9) staying alone was considerably lower still.

Table 14

Sample Children's Mean Hours Spent in Care Arrangements and Mean Months Care Arrangement

Used by Neighborhood Type by Age Group

Care Arrangement	Neighborhood Type											
	Suburban				Urban				Rural			
SELF-CARE [Age	Mean Hours Spent N Per Week	Mean Months Used	Mean Age of Sibling	Mean Hours Spent N Per Week	Mean Months Used	Mean Age of Sibling	Mean Hours Spent N Per Week	Mean Months Used	Mean Age of Sibling			
Alone [7,8,9 10,11,12	4 9.0 3 11.7	9.3 11.0	N/A N/A	3 7.3 3 10.0	20.7 24.3	N/A N/A	2 10.0 2 11.5	8.0 14.0	N/A N/A			
With Younger Sibling [7,8,9 10,11,12	- 1 5.0	- 19	- 8.0	- 2 10.0	- 19	- 8.5	1 15.0 4 15.0	8.0 26.0	7.0 8.5			
With Older Sibling [7,8,9 10,11,12	8 9.1 8 10.4	15.1 22.0	12.0 14.3	9 14.8 7 28.6	21.7 22.4	13.2 13.1	9 12.1 6 15	18.7 36	13.6 13.8			
Total	24 9.7	16.1	N/A	24 16.88	21.88	N/A	24 13.2	22.5	N/A			
ADULT-CARE												
Parent [7,8,9 10,11,12	11 * 11 *	28.8 45.2	N/A N/A	5 * 5 *	26.2 43.0	N/A N/A	8 * 9 *	21.5 37.3	N/A N/A			
Related Adult [7,8,9 10,11,12	1 15 1 13	7 19	N/A N/A	6 16.5 8 16.3	29 43.1	N/A N/A	4 8.5 3 20.0	17 30	N/A N/A			
Non- Related Adult [7,8,9 10,11,12	- -	- -	N/A N/A	- -	- -	N/A N/A	- -	- -	N/A N/A			
Day Care	- -	- -	N/A N/A	- -	- -	N/A N/A	- -	- -	N/A N/A			
Total	24 N/A	35.0	N/A	24 N/A	36.0	N/A	24 N/A	27.8	N/A			

During the children's interviews, it was obvious that the presence of siblings was a mixed blessing. Thirty-three percent of the negative comments made by self-care children about their care arrangements involved older siblings mistreating younger children, verbally and physically. On the other hand, only 7% of the positive comments made by self-care children about their care arrangements involved siblings doing things together and taking care of each other. Still, the presence of another person changes the nature or the "potency" of the care arrangement and may have had an impact on its effect.

Children also varied considerably in the amount of freedom and responsibility they had during the hours they were in self-care. Children indicated during interviews that they did not like being confined to the house or yard, especially if they were not allowed to have friends over to visit. Twenty-one percent of the negative comments made by self-care children about their care arrangements involved being lonely and isolated. Twenty-eight percent of the positive comments made by self-care and adult-care children about their care arrangements involved being able to play outside and have friends over. Obviously, the quality of the time spent during self-care (and adult-care) varied considerably within the sample and may have influenced the effects of the care arrangements.

The effects of the amount of time spent daily in a care arrangement and the cumulative effects of a care arrangement that is maintained over time have not been considered by prior research in this area. As indicated in Table 14, children in this sample were spending an average of between 2 to 3 hours per day in self-care arrangements. The range of time spent per week without adult supervision was from a low of 5 hours per week (the minimum number of hours for inclusion in the self-care group) to a high of 45 hours per week. Telephone conversations with parents and interviews with the children indicated that some of these weekly averages varied from week to week or month to month, according to the parents' work schedules and/or visiting adults in the home.

As indicated in Table 14, the length of time spent cumulatively in self-care arrangements varied, as expected, from younger to older children and also from school to school. The range was from a low of 6 months to a high of 56 months. The mean months the care arrangement had been used ranged from a low of 16.1 months at the suburban school to a high of 22.5 months at the rural school. Interviews with the children revealed that many of them had used a variety of care arrangements over time, and, according to their screening questionnaires, several were currently using a variety of adult and self-care arrangements before and after school.

The adult-care arrangements for sampled children in this study appear to have been more stable over time than the self-care arrangements, even when the caregiver was someone other than a parent. Sampled children in adult care at the suburban school had used this care arrangement for an average of 35.0 months; most (92%) of these children were cared for by a parent. At the urban school, 58% of the sampled children in adult care were cared for by a related adult, and the mean months these arrangements were used was 36.0. The lowest average number of months adult-care arrangements had been used (27.8) was at the rural school, where 29% of the children were cared for by a related adult. The lowest mean months used by adult-care children (27.8) was higher than the highest mean months used by the self-care children (22.5).

The above summary might indicate why the effects of time spent daily and cumulatively in the care arrangement have not been investigated in prior research. It is very difficult to secure precise data on these variables and a very large population would be necessary to be able to select only those children who had been in self-care consistently and exclusively for a determined number of hours daily and months cumulatively. While there is very little research to help one decide how long is too long, daily or cumulatively, obviously the length of time the "treatment" is applied will have an impact on its effect.

Another internal validity issue to be considered in interpreting the results of this study is that of regression to the mean. Hopkins (1969) states:

Studies of atypical and special groups have probably been the victims of the regression phenomenon more often than those in any other single area of inquiry. A simple statistical truism is that when subjects are selected because they deviate from the mean on some variable, regression will always occur. (p. 329)

The children selected for the self-care sample in this study represent a skewed population, an "atypical and "special" group. Lower income (correlated with minority status) and single-parent families are often overrepresented in samples of self-care children (Stewart, 1981). Both lower-income and minority status are correlated with lower scores on standardized tests, less successful adjustment to school, and poorer self-concept. Hopkins goes on to say that the regression effect is often unnoticed in studies using a matched pair design. He describes the impact of regression in studies in which the investigator typically pretests, matches subjects, applies a treatment, and subsequently retests. The general conclusion, that the treatment is more effective for one group, is often erroneous, since regression alone will influence test scores.

In this study, children were matched on five stable variables and no pretest was administered. However, the children using self-care in the study represent a group with generally lower performance standards on the dependent

variables than children in adult-care arrangements. Hopkins states that the scores of the two groups on the dependent variables will inevitably reflect a regression to the mean of their respective total group. Therefore, despite matching, the self-care children may, through regression, be expected to score lower on standardized tests and school adaptation, and higher on anxiety, fear, and depression than will their adult-care counterparts.

Although the total impact of the regression effect is unknown, caution must be exercised in overinterpreting even the significant findings of this study since they may be due to regression to the mean rather than to the effect of the child's care arrangement.

A final cautionary note is also in order. This study did not use a true experimental design. For obvious ethical and practical considerations, children could not be assigned randomly to either a self-care or an adult-care arrangement. Rather, matching was done on several key variables that were expected to show a relationship to one or more of the dependent variables. Other variables, for which matching was not done, may have exerted an effect on the dependent variables and also on the decision to use self-care. If this were the case, the effect attributed to care arrangement would be spurious.

These general comments regarding problems in the study are offered as an aid to interpreting overall results. What follows is an examination, by hypothesis and dependent variable, of the results of the study.

Fear

Self-care children had a higher mean score on level of fear than adult-care children; however, the difference between the two groups on this variable did not approach significance. A possible problem with this dependent variable was that the only item used to ascertain level of fear was Question 33 on the Children's Interview (Appendix I). This question, "How often do you feel pretty scared?", could have been answered by one of four responses ranging from "several times a day" to "once a month." Thus, a fairly simplistic attempt was made to evaluate a fairly complicated emotion in children.

There were no significant interactions with this dependent variable, although research indicated urban children in self-care may have higher levels of fear than urban children in adult care and suburban and rural children in self-care. In this study, older and younger suburban children in self-care were more fearful than their adult-care partners, but for the older urban children, this situation was reversed. In the rural neighborhood, older self-care children were more fearful than older adult-care children; results were reversed for younger rural children (Table 15).

Table 15

Mean Difference Scores (Adult-Care Minus Self-Care)
for Self-Care and Adult-Care Children,
by Age and Neighborhood Type

Age	7-9	7-9	7-9	10-12	10-12	10-12
Neighborhood Type	Rural	Suburban	Urban	Rural	Suburban	Urban
<u>Variable</u>						
Fear	5.08	-9.33	0.0	-7.17	-2.42	7.00
Anxiety (RCMAS)	1.17	-0.50	-6.75	-6.00	1.08	3.50
Depression (CD Inventory)	-2.08	-1.00	-6.00	-5.08	1.08	3.16
School Maladaptation (AML)	-3.58	-4.08	0.83	-9.33	0.58	-2.7
Reading NCE	6.67	10.08	6.92	39.08	-7.91	-10.58
Math NCE	0.416	-5.75	0.67	32.50	-5.33	-14.33
Attendance Days Absent	-1.63	2.67	-1.50	-5.50	-2.08	-1.67

In the study sample, urban and rural self-care children both had more freedom during their hours of self-supervision than children in self-care in the suburbs. Both the downtown (urban) area and the rural area are characterized by large extended families and many children felt free to visit them at will in the afternoon. Perhaps the combination of nearby neighbors and family and the freedom to seek them out reduced fear more effectively than the isolation imposed by the safety of a locked door.

Anxiety and Depression

Because of the established reliability and validity of both of the instruments used to measure these constructs, and the careful adherence to procedure during their administration, the results of these measures of depression and anxiety are thought to be valid. Self-care children had higher mean scores on both depression and anxiety than children in adult-care; however, the differences were not significant.

The significant interaction between care arrangement, age, and neighborhood type in relation to anxiety is approximated for depression as well, although not to the point of significance at the 0.05 level (Table 15). Apparently, younger urban children in self-care arrangements are more depressed and anxious than are older urban children in self-care. Perhaps the older children enjoy the freedom

of the streets more than their younger counterparts and have learned better coping skills. Also, there was a very high incidence of single-parent families in the urban sample. Seventy-five percent of the urban children lived with their mother. Younger children would be expected to be more dependent than older children, and perhaps more anxious and depressed due to daily absences of their primary caregiver.

School Maladaptation

Self-care children had scores on the school maladaptation scale that were significantly higher at the 0.05 level than the scores of adult-care children. The AML which was used to measure school maladaptation is an instrument with established validity and reliability. Teachers were given the instrument with identical instructions and time frames for completing them. Bias could have been present if teachers were aware of the sampled children who were in self-care and the children who were in adult-care. Research (Bill, 1985) and casual conversations about the study held with teachers at all three schools indicated that at least some teachers had negative feelings about children staying at home alone before and after school. The procedure followed during the study did not identify sampled children as self-care or adult-care, but teachers were often aware of the care arrangement of the children in their classes.

Table 15 indicates higher school maladaptation scores for self-care than adult-care children in four of the six possible groups; the exceptions were younger urban and older suburban children. Again, the older rural children in self-care and adult-care have the greatest disparity in mean difference scores, self-care children in this group having higher school maladaptation scores than adult-care children.

Reading and Math NCE Scores

The mean difference scores on these two dependent variables were both in the hypothesized direction, but neither reached significance. Table 15 indicates that older rural children in self-care had much lower mean NCE scores on both reading and math than older rural children in adult care. Younger rural, suburban, and urban children in self-care also had lower mean NCE scores on reading than younger rural, suburban, and urban children in adult care. Differences in Math NCE scores were less pronounced for all groups except the older rural children in self-care. A significant interaction effect in Math indicates that older rural children in self-care is the group most at risk in this academic area. A significant three-way interaction effect in Reading indicates that the older rural children in self-care are significantly different from the older suburban and urban children in self-care in mean Reading NCE scores.

Obviously, self-care was not consistently related to children's performances on standardized reading and math tests. However, a negative relationship is suggested by the lower mean reading scores for younger self-care children from the three neighborhood types and the significant interactions highlighting the lower performance of rural children in self-care, particularly the older group. Also, Table 15 indicates that the older rural children in self-care had consistently higher scores in fear, anxiety, depression, school maladaptation and days absent from school than did older rural children in adult care.

Table 14 indicates that rural children have spent the longest amount of time in self-care arrangements, among children in the three neighborhood types. Also, additional calculations indicate that the older rural children have been in self-care longer on average (29 months) than either the older urban (22.3 month) or the older suburban (19 month) groups. Four of the 12 children in the older rural group had been in self-care 56 months at the time of the interview, since beginning school. Such a small sample does not yield conclusive results, but may indicate a relationship between the amount of time spent in self-care and academic performance.

School Attendance

Children in self-care had more days absent recorded for the school year than children in adult-care. Differences were significant at the 0.05 level for a one-tailed t test. Table 15 indicates self-care children had more days absent than adult-care children in all age and neighborhood groups except the younger suburban children. Again, the older rural children had the greatest difference recorded between self-care and adult-care groups.

These results, although predicted by the one piece of research available for this variable (Hawkins, 1983), were surprising to school personnel. All three principals indicated children in self-care usually came to school even when they were sick rather than stay at home alone. Although there was not a significant interaction with age and attendance, older children had greater mean difference scores than younger children, and the difference was consistently more days absent for children in self-care (Table 15). If the higher number of days absent from school were truly illegal absences, "skipping school" due to lack of parental supervision, older children would seem more likely to participate than younger children who might still be uncomfortable being alone or with other truant friends.

Suggestions for Future Research

Sandra Scarr (1984) in Mother Care/Other Care reiterates a theme established by a recent study into the effects of maternal employment on children (Kamerman & Hayes, 1982). A distinguished panel of social scientists, after reviewing all the research on working mothers, concluded there were no consistent effects of maternal employment on any aspect of child development. Rather, they decided the research has been aimed at the wrong questions. A major conclusion of the study was:

Little is known about the consequences for children of employment or unemployment. Simple propositions regarding the positive or negative consequences of parents' work cannot be demonstrated and sophisticated ones have generally not been investigated. Child outcomes, where they have been addressed, are conceived very narrowly. (Scarr, 1984, p. 320)

Scarr elaborates:

Maternal employment cannot have a single set of effects on children because mothers work for various reasons, when their children are of various ages and stages of development, in communities with various attitudes and supports for working parents and so on. (p. 25)

The results of this study indicate to this researcher that perhaps continued research into narrowly defined effects of self-care would be research aimed at the wrong questions. Instead, it is suggested that future research be designed to profit from some of the internal and external validity problems of this study and to build on this study's results.

An overall impression gained by the researcher during interviews with the sampled children is that many of the children in self-care were obviously doing very well with this care arrangement; some were not, just as obviously. Therefore, the first research question prompted by this study and the interviews with the children is: What determines whether a child is satisfied with or does well in a self-care arrangement?

Some components that seemingly influence a child's satisfaction with or adjustment to the arrangement include:

1. the presence or absence of siblings;
2. the child's level of satisfaction with his/her sibling caretakers;
3. the degree of isolation experienced by the child in self-care;
4. the type of activities a child has to engage in during hours in self-care;
5. the amount of time spent daily in the self-care arrangement;
6. the amount of instruction given to the self-care child by the parent;
7. the availability of the parent to the child in self-care; and
8. the availability of resources in the neighborhood to the child in self-care.

Each component, operationally defined, could be used as an independent variable in future research on what affects children's satisfaction with self-care arrangements. For example: What is the relationship between the amount of time a child spends daily in self-care and his or her satisfaction level with the care arrangement? A multiple regression analysis could be conducted using several of the above components as independent variables and satisfaction level (operationally defined as a continuous variable) as the dependent variable.

A second research question following the first is: Is a child's level of satisfaction with his or her self-care arrangement related to the effect of his or her care arrangement? Multiple regression analyses could be conducted using children's levels of satisfaction and several of the components listed above under the first research question as independent variables and measures of fear, anxiety, depression, school achievement and adjustment as dependent variables.

A third research question is: What is the relationship between the amount of time spent cumulatively in self-care and the effect of the care arrangement? Data collected for this study on the amount of time spent cumulatively in self-care could be entered as an independent variable in the multiple regression analyses described under the second research question. Additionally, based on this study's

results, future research may profit from imposing a more rigorous definition of self-care; perhaps: A child is in a self-care arrangement if he or she spends at least 10 hours a week alone or with a sibling not more than 2 years older, and has been in the arrangement consistently for at least one year.

Additional research is also needed on the effect of the age of the child in self-care. Although age did not emerge consistently as an interacting variable in this study, families continue to need information on how old a child should be before self-care arrangements can be successful. A fourth research question is: What is the relationship between the age of the child and the effect of the self-care arrangements?

Finally, as Hoffman (1983) noted about most of the research on the effects of maternal employment, most of the research on the effects of self-care arrangements has been carried out in a negative way; few investigators have asked what benefits there might be from families using self-care arrangements and having children in positions that can foster trust and responsible behavior. A fifth research question is: What are the potential benefits for families using self-care arrangements?

Given the difficulty of obtaining a sample of self-care children, it is suggested that future research on differences between children in self-care and children in

adult-care arrangements use a matched pair research design instead of random selection. This design has been identified as being especially valuable to the investigator forced to work with a small population (Roscoe, 1975). Researchers using matching should, however, be aware of the possibility of regression to the mean occurring and influencing the results of the study. Hopkins (1969) recommends that when matching occurs on organismic variables--e.g., sex, ethnic group, etc.--the dependent variables should be residual gain scores, i.e., the difference between scores predicted to occur and the scores actually obtained on the measure. Unfortunately, residual gain scores for a study similar to this one would be very difficult to obtain. Children would have to have scores taken on the dependent variables before they began using adult- or self-care arrangements.

In conclusion, given the trend toward increased participation by mothers in the work force, professionals in the field of child and family are challenged to continue efforts to understand the impact of alternative care arrangements for children. Current estimates of the number of children using self-care arrangements indicate that large numbers of families are using this alternative and, to date, very little is known about any aspect of these arrangements. Continued research into narrowly defined effects of self-care will probably, given the difficulties

with extraneous variables, continue to produce equivocal results. A more productive line of research would provide information on how and why self-care arrangements work or do not work for families and children.

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APPENDIX A
QUESTIONNAIRE ON CHILD CARE ARRANGEMENTS
FOR ELEMENTARY SCHOOL CHILDREN

QUESTIONNAIRE ON CHILD CARE ARRANGEMENTS
FOR ELEMENTARY SCHOOL CHILDREN

Child's Name: _____ Age: _____ Sex: _____
Male _____
Female _____

Child's School: _____

Teacher: _____ Grade Level: _____

Parent's or Guardian's Name: _____

PLEASE PUT A CHECK () BESIDE YOUR ANSWERS:

1. What is your relationship to this child?

Mother _____
 Father _____
 Grandparent _____
 Guardian _____
 Other (Please Explain) _____

2. Are you employed outside the home?

[illegible]

3. If you are married and living with your husband/wife, is he or she employed outside the home?

[illegible]

Does not apply to me.

4. Because of work and other activities, parents cannot always be at home with their children before and/or after school. Are you or your husband/wife usually at home with this child before and after school hours?

Yes _____ No _____

IF "NO", PLEASE GO ON TO QUESTION 5 (page 2).

IF "YES", PLEASE SKIP QUESTIONS 5 and 6 AND GO ON TO QUESTION 7 (page 3).

PLEASE TURN OVER TO PAGE 2

5. On this page I would like some information on the care arrangements you use on a regular basis for this child before and after school. Please check each arrangement that you use. (If you are using more than one care arrangement, please check all that you use.) Also, please tell me how many hours per week you use each arrangement and how long you have been using it.

Check here if you use it.	Care Arrangements	Hours per week you use it.	How long have you been using it?
A. _____	Taken care of in your home by a relative over 18.	_____	_____
B. _____	Taken care of in your home by a babysitter.	_____	_____
C. _____	Taken care of at the home of a relative.	_____	_____
D. _____	Taken care of at the home of a friend.	_____	_____
E. _____	Taken care of at a day care center.	_____	_____
F. _____	Takes care of self--alone at home.	_____	_____
G. _____	Takes care of self--older brother(s) or sister(s) at home. (How old is/are brother(s) and/or sister(s)? _____	_____	_____
H. _____	Takes care of self--younger brother(s) and/or sister(s) at home. (How old is/are younger brother(s) or sis- ter(s)? _____	_____	_____
I. _____	Other care arrangements. Please explain. _____ _____ _____	_____	_____

PLEASE GO ON TO PAGE 3

6. IF YOU CHECKED F, G, or H ABOVE, PLEASE ANSWER THIS QUESTION: Some parents leave their children to take care of themselves because the parents prefer it to other care arrangements. Others do it because they feel they don't have any choice. How about yourself?

I prefer it. _____ I have no choice. _____

7. How satisfied are you with the care arrangement(s) you are using for this child?

1. _____ Very satisfied
2. _____ Somewhat satisfied
3. _____ Somewhat dissatisfied
4. _____ Very dissatisfied

8. Why have you chosen the care arrangement(s) you are using? (Please check all answers that are true.)

_____ You like it.
_____ Your child likes it.
_____ Other arrangements are too expensive.
_____ It is convenient.
_____ Other (Please describe)

9. Did you know that Charleston County offers an after-school care program at one elementary school in the district?

_____ Yes

_____ No

10. Would you be interested in having an after-school care program available at a school near you?

_____ Yes _____ Maybe _____ No

IF "YES" OR "MAYBE", PLEASE GO ON TO QUESTION 11 (page 4).

IF "NO", WHY NOT?

PLEASE GO ON TO PAGE 4

IF YOU ANSWERED "NO" TO QUESTION 10, PLEASE ANSWER QUESTION 16 (page 4) AND FILL IN THE INFORMATION ON PARENTS OR GUARDIANS.

11. Would you child need transportation to a program if it were not at his/her school?

 Yes
 No

12. To serve my child care needs, an after-school program would have to be open until o'clock.

13. Would your child need transportation home from a program?

 Yes
 No

14. What type of activities would you like offered at an after-school care program?

 Supervised recreation
 Supervised time for homework
 Tv
 Snacks
 Arts and crafts
 Other (Please specify)

15. For an after-school program that met my child care needs, I would be willing to pay \$ a week.

16. PLEASE FILL IN INFORMATION ON PARENTS OR GUARDIANS.

Mother's or female guardian's highest grade or education level completed:

Mother's or female guardian's occupation:

Father's or male guardian's highest grade or education level completed:

Father or male guardian's occupation:

Parents' or guardians' marital status:

 married, living together separated
 divorced widowed

THANK YOU FOR YOUR TIME AND COOPERATION.
PLEASE RETURN THIS QUESTIONNAIRE TO SCHOOL WITH YOUR CHILD
TOMORROW. THANK YOU!

APPENDIX B
ADVANCE LETTER TO PARENTS

Charleston County School District



BOARD OF TRUSTEES Mr. John Graham Altman, Chairman

Mrs. Joyce D. Remsburg, Vice Chm.
Col. Eugene D. Foxworth, Jr.
Coleman O. Glaze
Mrs. Polly Holden

Mrs. Sharon Mims
John P. (Jack) O'Keefe
Cariyle Singletary
Charles W. Stall, Jr.

Superintendent of Schools
Dr. Ronald A. McWhirt

Deputy Superintendent
Redney A. Spaulding

February 27, 1984

Dear Parents,

I am a graduate student completing requirements for a doctoral degree in Child Development and Family Relations from the University of North Carolina at Greensboro. I am also an employee for Charleston County School District in the Department of Research and Evaluation.

The Family Research Center at the University of North Carolina and Charleston County School District are co-sponsors of a study that will begin next week in your school. The title of the study is "The Impact of Self-Care Arrangements on School Age Children." The purpose of the first part of the study is to find out what types of care arrangements parents are using for their children and how satisfied parents and children are with these care arrangements. The school district is also interested in how parents feel about having an after school care program offered at their child's school.

The purpose of the second part of the study is to look at groups of children in different care arrangements to see if there are measurable differences between groups. Many family and child specialists feel that this is an important part of the study because so many children today are using care arrangements other than their moms and dads before and/or after school, and we know very little about the effect the care arrangements are having on children and families. We are especially interested in self-care arrangements, children looking after themselves alone or with a brother or sister under eighteen at home, as trends indicate that the large number of families using this arrangement will increase in the future.

I was pleased to speak to your PTA this month and to answer questions from parents and children. Next Monday, March 5, your child will bring home a questionnaire for you to fill out. It is designed to accomplish the first purpose of the study. A cover letter with my number will be included. If you have questions or concerns about the questionnaire or the study at that time, please give me a call. I need your cooperation for the study to be a success, and I want to be responsive to your concerns.

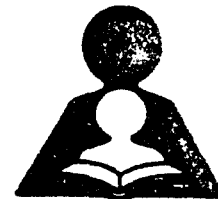
Sincerely,

Martha Stewart

MS/dm

APPENDIX C
COVER LETTER TO PARENTS

Charleston County School District



BOARD OF TRUSTEES

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Mrs. Polly Holden

Mrs. Sharon Mims

John P. (Jack) O'Keefe

Carlyle Singletary

Charles W. Stall, Jr.

Superintendent of Schools
Dr. Ronald A. McWhirt

Deputy Superintendent
Rodney A. Spaulding

March 5, 1984

Dear Parents,

Last week you received a letter from me explaining the purposes for a study your school is participating in entitled "The Impact of Self-Care Arrangements on School Age Children." Also, you may have been present at PTA and heard my presentation on the need for information on types of child care arrangements being used by families of school age children and how satisfied parents and children are with their care arrangements.

The study is being co-sponsored by the Family Research Center in Greensboro, North Carolina, and the Charleston County School District. Child and family professionals are interested in measuring the effects different child care arrangements may be having on children and their families. Of particular interest are "self-care arrangements." These are arrangements in which children look after themselves before and/or after school, alone or with a brother or sister under 18 with them. Trends indicate that the large numbers of families using this type of arrangement will probably increase in the future. The school district is also interested in parent attitudes about after-school care programs.

The questionnaire enclosed with this letter is designed to answer some of these questions. I think you will be able to fill it out in about ten minutes, and your child has been asked to return it to school tomorrow. I'm sorry to say it will be necessary for you to fill out a questionnaire for each child you have in this school in grades 2-5. Information on each child in these grades is important, and I have offered an ice cream party for each class that returns 75% of its questionnaires by Friday, March 9.

Any information you volunteer on this questionnaire will be absolutely confidential. No one except myself will see your answers and no names will ever be mentioned in reporting results. If you have any questions or concerns about the study, I can be reached at 571-3814 in the evenings and will be glad to talk with you.

Thank you very much for your time and cooperation.

Sincerely,

Martha Stewart

MS/mw

Enclosure

APPENDIX D
INSTRUCTION LETTER TO TEACHERS

Charleston County School District



BOARD OF TRUSTEES

Mr. John Graham Altman, Chairman

Mrs. Joyce D. Remsburg, Vice Chm.
Col. Eugene D. Foxworth, Jr.
Coleman O. Glaze
Mrs. Polly Holden

Mrs. Sharon Mims
John P. (Jack) O'Keefe
Carlyle Singletary
Charles W. Stall, Jr.

Superintendent of Schools
Dr. Ronald A. McWhirt

Deputy Superintendent
Rodney A. Spaulding

March 2, 1984

Dear Teachers:

Enclosed are addressed envelopes for the students in your class. These contain a cover letter and a questionnaire for parents to fill out and return to you via their child. Please distribute these questionnaires Monday afternoon, March 5. If you have absent children, please give out those questionnaires during the afternoon of the day the children return to school.

Please explain to the children what is in the envelope, and ask that they return the questionnaires the next day. I have arranged with your cafeteria for your class to have an ice cream party if they can return 75% of their questionnaires by Friday, March 9. (When you figure 75% of your class, round up if the number taken to the first decimal place is .5+, down if it is .4-.) If a child loses a questionnaire, I have included a couple of blank envelopes ready to fill in with the child's name if needed.

If a child's parents do not want to fill out a questionnaire and he or she is upset because he or she can't bring it in, please explain to the child that if their parent will just sign the questionnaire and indicate they chose not to participate, I will count that as a returned questionnaire. An ice cream party can be a powerful incentive and I don't want any children to feel they are letting the class down because their parents don't want to fill out a questionnaire. I would appreciate it if you would use this information on a one to one basis as a good response rate is very important to the success of the study.

Please mark off the children as they return questionnaires, using the roster on the front of your envelope. On Friday, indicate if you are eligible for ice cream, and send the envelope with the questionnaires to the office. I will pick them up around noon that day. Purity Dairy will deliver your ice cream the next week and it will be given to your class at lunch.

Thank you very much for your time and help! I hope this goes smoothly for you and isn't too time consuming.

Sincerely,

Martha Stewart

MS/dm

APPENDIX E
PERMISSION LETTER TO PARENTS



Charleston County School District

Ronald A. McWhirt, Superintendent

CHARLESTON, NORTH CAROLINA

Phone 722-8461

Dear Parent:

The Family Research Center of University of North Carolina at Greensboro, with the cooperation of the Charleston County School District, is carrying out a study concerned with how and where children spend their after-school hours. We are interested in studying children who take care of themselves at home while their parents work and also children who have a parent or other adult at home.

We would like to interview your child, and also have your child fill out two questionnaires. This will be done at school and will take about one hour of class time. We will be asking questions about how children spend their time after school, whether they like what they do, the extent to which they are sad or happy, and the extent to which they have fears or not. We believe the information we are gathering will help parents and teachers. For example, it will help the Charleston County School District decide whether there is a need to provide an after-school program.

We would very much like your permission to spend about one hour with your child as part of this study. The information that we collect will be kept confidential. Results will be reported for groups of children, and it will be impossible to identify any individual child.

There is only one condition under which we would want to share the information with your child's guidance counselor, so that the counselor can discuss the situation with you. This would be if the information we collect suggests that your child may have a problem that you would want to know about. We expect that very few children will fall into that category. But we will not share the information with the counselor unless we have your permission.

This study has been approved by the Charleston County School District Research Committee and Jean Murray. If you would like to have more information about the study you may call Martha Stewart at 571-3814. Please sign one of the two blanks below if you agree to let your child take part in the study.

I give permission for _____ to participate in the study. But I do not want the information to be shared with the school counselor under any circumstances.

Signed _____

I give permission for my child to participate in the study, and I agree that the information can be shared with the school counselor as outlined above.

Signed _____

Please check here if you would like to receive a summary of the results of the study, after it has been completed. ☐

Please check here if you would like to participate in a training program for parents and children. It is specially designed for families where the children take care of themselves at home while the parents work or for families thinking about such an arrangement in the future. ☐

APPENDIX F

BEHAVIOR RATING SCALE (ACTING OUT, MOOODY, LEARNING)

Teacher _____ Date _____ Student _____

BEHAVIOR RATING SCALE

OBSERVED BEHAVIOR	SCALE				
	Never (1)	Seldom (2)	Moderately Often (3)	Often (4)	Most or all of the time (5)
1. Gets into fights or quarrels with other students.	()	()	()	()	()
2. Has to be coaxed or forced to work or play with other pupils.	()	()	()	()	()
3. Is restless.	()	()	()	()	()
4. Is unhappy or depressed.	()	()	()	()	()
5. Disrupts class discipline.	()	()	()	()	()
6. Becomes sick when faced with a difficult school problem or situation.	()	()	()	()	()
7. Is obstinate.	()	()	()	()	()
8. Feels hurt when criticized.	()	()	()	()	()
9. Is impulsive.	()	()	()	()	()
10. Is moody.	()	()	()	()	()
11. Has difficulty learning.	()	()	()	()	()

- | | | |
|---|-------------------------|---|
| 1 | Never | You have literally never observed this behavior in this child. |
| 2 | Seldom | You have observed this behavior once or twice in the last three months. |
| 3 | Moderately often | You have observed this behavior more often than once a month but less than once a week. |
| 4 | Often | You have seen this behavior more often than once a week but less often than daily. |
| 5 | Most or all of the time | You have seen this behavior with great frequency, averaging once a day or more often. |

APPENDIX G
CHILDREN'S DEPRESSION INVENTORY

Name _____ Age _____ Date _____
School _____ Teacher _____

Kids sometimes have different feelings and ideas. This form lists the feelings and ideas in groups. From each group, pick one sentence that describes you best for the past two weeks. After you pick a sentence from the first group, go on to the next group.

There is no right answer or wrong answer. Just pick the sentence that best describes the way you have been feeling recently. Put a mark like this X next to your answer. Put the mark on the line next to the sentence that you pick.

Here is an example of how this form works. Try it. Put a mark next to the sentence that describes you best.

Example:

_____ I read books all the time.
_____ I read books once in a while.
_____ I never read books.

REMEMBER, PICK OUT THE SENTENCES THAT DESCRIBE YOUR FEELINGS AND IDEAS IN THE PAST TWO WEEKS.

1. ☐ I am sad once in a while.
☐ I am sad many times.
☐ I am sad all the time.
2. ☐ Nothing will ever work out for me.
☐ I am not sure if things will work out for me.
☐ Things will work out for me O.K.
3. ☐ I do most things O.K.
☐ I do many things wrong.
☐ I do everything wrong.
4. ☐ I have fun in many things.
☐ I have fun in some things.
☐ Nothing is fun at all.
5. ☐ I am bad all the time.
☐ I am bad many times.
☐ I am bad once in a while.
6. ☐ I think about bad things happening to me once in a while.
☐ I worry that bad things will happen to me.
☐ I am sure that terrible things will happen to me.
7. ☐ I hate myself.
☐ I do not like myself.
☐ I like myself.

8. ☐ All bad things are my fault.
☐ Many bad things are my fault.
☐ Bad things are not usually my fault.
9. ☐ I feel like crying every day.
☐ I feel like crying many days.
☐ I feel like crying once in a while.
10. ☐ Things bother me all the time.
☐ Things bother me many times.
☐ Things bother me once in a while.
11. ☐ I like being with people.
☐ I do not like being with people many times.
☐ I do not want to be with people at all.
12. ☐ I cannot make up my mind about things.
☐ It is hard to make up my mind about things.
☐ I make up my mind about things easily.
13. ☐ I look O.K.
☐ There are some bad things about my looks.
☐ I look ugly.
14. ☐ I have to push myself all the time to do my schoolwork.
☐ I have to push myself many times to do my schoolwork.
☐ Doing schoolwork is not a big problem.

15. ☐ I have trouble sleeping every night.
 ☐ I have trouble sleeping many nights.
 ☐ I sleep pretty well.
16. ☐ I am tired once in a while.
 ☐ I am tired many days.
 ☐ I am tired all the time.
17. ☐ Most days I do not feel like eating.
 ☐ Many days I do not feel like eating.
 ☐ I eat pretty well.
18. ☐ I do not worry about aches and pains.
 ☐ I worry about aches and pains many times.
 ☐ I worry about aches and pains all the time.
19. ☐ I do not feel alone.
 ☐ I feel alone many times.
 ☐ I feel alone all the time.
20. ☐ I never have fun at school.
 ☐ I have fun at school only once in a while.
 ☐ I have fun at school many times.
21. ☐ I have plenty of friends.
 ☐ I have some friends but I wish I had more.
 ☐ I do not have any friends.

22. ☐ My schoolwork is all right.
☐ My schoolwork is not as good as before.
☐ I do very badly in subjects I used to be good in.
23. ☐ I can never be as good as other kids.
☐ I can be as good as other kids if I want to.
☐ I am just as good as other kids.
24. ☐ Nobody really loves me.
☐ I am not sure if anybody loves me.
☐ I am sure that somebody loves me.
25. ☐ I usually do what I am told.
☐ I do not do what I am told most times.
☐ I never do what I am told.
26. ☐ I get along with people.
☐ I get into fights many times.
☐ I get into fights all the time.

THE END

THANK YOU FOR FILLING OUT THIS FORM

APPENDIX H
REVISED CHILDREN'S MANIFEST ANXIETY SCALE

Name: _____ Age _____ Date _____

School _____ Teacher _____

CIRCLE THE ANSWER THAT IS TRUE FOR YOU

ITEM

- | | | |
|--|-----|----|
| 1. I have trouble making up my mind. | YES | NO |
| 2. I get nervous when things do not go the right way for me. | YES | NO |
| 3. Others seem to do things easier than I can. | YES | NO |
| 4. I like everyone I know. | YES | NO |
| 5. Often I have trouble getting my breath. | YES | NO |
| 6. I worry a lot of the time. | YES | NO |
| 7. I am afraid of a lot of things. | YES | NO |
| 8. I am always kind. | YES | NO |
| 9. I get mad easily. | YES | NO |
| 10. I worry about what my parents will say to me. | YES | NO |
| 11. I feel that others do not like the way I do things. | YES | NO |
| 12. I always have good manners. | YES | NO |
| 13. It is hard for me to get to sleep at night. | YES | NO |
| 14. I worry about what other people think about me. | YES | NO |
| 15. I feel alone even when there are people with me. | YES | NO |
| 16. I am always good. | YES | NO |
| 17. Often I feel sick to my stomach. | YES | NO |

ITEM

18. My feelings get hurt easily.	YES	NO
19. My hands feel sweaty.	YES	NO
20. I am always nice to everyone.	YES	NO
21. I am tired a lot.	YES	NO
22. I worry about what is going to happen.	YES	NO
23. Other children are happier than I.	YES	NO
24. I tell the truth every single time.	YES	NO
25. I have bad dreams.	YES	NO
26. My feelings get hurt easily when I am fussed at.	YES	NO
27. I feel someone will tell me I do things the wrong way.	YES	NO
28. I never get angry.	YES	NO
29. I wake up scared some of the time.	YES	NO
30. I worry when I go to bed at night.	YES	NO
31. It is hard for me to keep my mind on my schoolwork.	YES	NO
32. I never say things I shouldn't.	YES	NO
33. I wriggle in my seat a lot.	YES	NO
34. I am nervous.	YES	NO
35. A lot of people are against me.	YES	NO
36. I never lie.	YES	NO
37. I often worry about something bad happening to me.	YES	NO

APPENDIX I
CHILDREN'S INTERVIEW

INTERVIEWER: Before interview begins make sure that each child's participation is voluntary.

1. Where do you live?

☐ House, single family or duplex
☐ Townhouse or condominium
☐ Apartment
☐ Mobile Home
☐ Other, specify _____

2. Tell me who lives with you?

Relation to you	Age	Usually at home before you go to school	Usually at home in the afternoon	In past 5 days No. of times at home before school	In past 5 days No. of times at home after school
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

3. How do you get to/from school?

to school

☐ walk
☐ bicycle
☐ auto
☐ school bus
☐ public bus
☐ taxi
☐ other: specify _____

from school

☐ walk
☐ bicycle
☐ auto
☐ school bus
☐ public bus
☐ taxi
☐ other: specify _____

4. At what time does your school usually end each day?

5. Where do you go after school?

- ☐ home
- ☐ relatives
- ☐ sitters
- ☐ friend's or school mate's house
- ☐ stay at school as long as possible
- ☐ other: specify _____

6. Who is at your house (or the place in which you are cared for after school) when you arrive or who arrives there with you?

- ☐ no one
- ☐ mother
- ☐ father
- ☐ siblings: list sex and age

☐ Relative: Specify

- ☐ sitter
- ☐ friend or other non-related person: Specify _____

7. At what time does the first adult usually arrive home (or at the place you go after school)?

_____ who is it? _____ time?

_____ adult already there

8. How do you get into your house (or the place you usually go) after school?

- ☐ Someone is already there, specify _____
- ☐ Has a key.
- ☐ other method of entry: Specify _____

9. If you lost your key (or otherwise could not obtain entry) what would you do?

- ☐ wait until an adult appeared.
- ☐ go to another location: specify _____
- ☐ obtain a key elsewhere: specify _____
- ☐ other: specify _____

10. What do you usually do when you get home? Start with the first thing you usually do and tell me everything you do until dinner. (INTERVIEWER: Be sensitive to any indicators of fear and anxiety. Write them verbatim.)
11. Do you usually telephone someone after you are home?
(May have been answered in #10)
- _____ Yes _____ No
- If yes, who _____
12. Does someone usually telephone you after you are home?
- _____ Yes _____ No
- If yes, who _____
13. Are you allowed to play outdoors after you arrive home?
- _____ yes, whenever I choose
- _____ yes, occasionally, under these circumstances _____
- _____
14. If you are allowed to play outdoors, where are you allowed to play?
- _____ yard only
- _____ only on the block
- _____ yard, block and/or park or school property
- _____ other, specify _____
- _____ no restrictions
15. Are you allowed to visit a friend's house after school?
- _____ yes, no restrictions
- _____ yes, with the following restrictions _____
- _____ no
16. Are you allowed to have a friend over after you arrive home?
- _____ yes, no restrictions
- _____ yes, with the following restrictions _____
- _____ no

17. Is there anything you would like to do that you usually cannot?

☐ yes What: Specify: _____
☐ no

18. Do you have a pet?

☐ yes Describe it: _____
☐ no

19. Do you have any chores you must do at home?

☐ yes What are they: _____
☐ no

20. Do you do them?

☐ usually or most of the time
☐ sometimes or occasionally
☐ seldom or never

21. Do you have a T.V.?

☐ yes
☐ no

22. Are you allowed to watch T.V.?

☐ yes, no restrictions
☐ yes, some restrictions Specify _____
☐ no

23. How much T.V. do you watch each day?

<input type="checkbox"/> 0 - $\frac{1}{2}$ hours	<input type="checkbox"/> 4 \pm 5 hours
<input type="checkbox"/> $\frac{1}{2}$ \pm 2 hours	<input type="checkbox"/> 5 \pm 6 hours
<input type="checkbox"/> 2 \pm 3 hours	<input type="checkbox"/> 6 + hours
<input type="checkbox"/> 3 \pm 4 hours	

24. How happy or sad do you feel about what you do after school--between the time school is out and supper time?

☐ very happy
☐ a little bit happy
☐ not happy, not unhappy
☐ a little bit unhappy
☐ very unhappy

25. What if something dangerous happened while you were alone (or with your brother or sister) in your house. What would you do?

☐ call on parent: which one first, specify _____
☐ call police or fire department (see if they know the number or where to obtain it _____)
☐ leave the house (see where they would go _____)
☐ handle the situation by oneself (query as to what the child would do _____)
☐ call on a nearby adult (ascertain whom _____)
☐ cry, hide or some other type of relative inaction

26. What did your parent/guardian tell you to do if something dangerous happened?

27. Do you ever practice what to do if something dangerous happened at your house, like have fire drills at home?

☐ yes, often
☐ yes, sometimes
☐ no, never

28. Has anything dangerous, like a fire or someone breaking into your house, ever happened when you were at home?

☐ yes obtain as many details for each occurrence as possible

☐ no

For each dangerous occurrence mentioned ask: "Who was with you when that emergency occurred?"

For each dangerous occurrence mentioned ask: "What did you do?"

29. If you are home alone (or with your brother or sister) and you need help, are there adults living or working near you that you can call on?

☐ yes, usually or most of the time
☐ yes, occasionally or sometimes
☐ no, very seldom

30. If yes, who are they and how would you get in touch with them?
31. All of us are afraid of something. What's the one thing you are most afraid of?
(record verbatim)
- (probe) What are some other things you are afraid of?
(record verbatim)
- (probe) Anything else?
32. What sorts of things do you do when you feel afraid?
(record verbatim)
- (probe) Anything else?
33. All of us get pretty scared sometimes. How often do you feel pretty scared?
- ____ several times a day
____ about once a day
____ about once a week
____ about once a month
34. Who takes care of you when you are sick and can't go to school?
- ____ mother
____ father
____ sibling
____ self, no one
____ relative
____ sitter
____ other: Specify _____
35. Who takes care of you when there is no school and your parent(s) has/have to work or otherwise find it difficult to stay with you?
- ____ sitter
____ relative
____ sibling
____ self, no one
____ other, specify _____

36. Who takes care of you during vacation periods, like summer?

☐ mother
☐ father
☐ sitter
☐ relative
☐ sibling
☐ self, no one
☐ camp
☐ summer school
☐ other, specify _____

37. How satisfied are you with the care arrangement you have now?

☐ like it a lot
☐ like it a little
☐ don't like it

38. If you could have any of these after-school care arrangements you wanted, which one would you choose?

☐ take care of yourself--just you at home
☐ take care of yourself (brother and/or sister at home)
☐ cared for in your home by your mom or dad
☐ cared for in your home by a babysitter
☐ cared for in a friend's or relative's home
☐ cared for in a day-care center
☐ other (please describe): _____

39. Are there some things about your care arrangement that you really don't like?

Yes _____ No _____
 (If yes): Tell me what they are.

40. Are there some things about your care arrangement that you really like?

Yes _____ No _____
 (If yes): Tell me what they are.

I've enjoyed talking with you. Thank you for your time.