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Reasons for choosing child care: associations with family factors, quality, and satisfaction

Vicki Peyton^{a,*}, Anne Jacobs^a, Marion O'Brien^b, Carolyn Roy^a

^a*Department of Human Development, University of Kansas, 4001 Dole Hall, Lawrence, KS 66045, USA*

^b*University of North Carolina at Greensboro, Greensboro, NC, USA*

Abstract

Demographic and family process factors related to the reasons mothers selected a particular care arrangement for their 3-year-old children were examined along with the type and quality of care the children received and the mothers' satisfaction with that care. Reasons for selecting care were categorized as focused on quality, practicality, or preference for a specific type of care arrangement. Mothers in high-income families and those who worked fewer hours were more likely to select a child-care arrangement based on its quality than on practical concerns such as cost, hours of operation, or location. Mothers who reported higher stress related to parenting were more likely to choose care because of practical issues. Mothers who chose care based on quality were least likely to use care provided by a relative. In addition, mothers choosing care because of its quality were more likely to place their children in higher quality care, as judged by outside observers, than those who chose based on practical concerns. However, mothers who chose care because of a preference for a particular type of care (center-based, home-based, or relative) received higher quality care than either of the other two groups. Mothers who chose care because of practical concerns were least satisfied with their child's care. © 2001 Elsevier Science Inc. All rights reserved.

1. Introduction

When parents seek child care, they have a number of choices to make. They can decide to arrange care by a relative, by an unrelated adult in a home setting, or in a child care center. Furthermore, within these types of care, parents may have several different options available to them. Each possible arrangement will differ in several ways. Some of these differences

* Corresponding author. Tel.: +1-785-864-0701; fax: +1-785-864-5202.

E-mail address: vpeyton@eagle.cc.ukans.edu (V. Peyton).

involve practical considerations for parents: cost, hours of availability, and location, for example. Child-care arrangements also differ on characteristics that are typically used as indices of quality: availability of toys and play materials, amount and organization of space, training of the care providers, program emphasis (e.g., academic preparation, social development), and the number of adults and children present.

There is not a lot of literature on the reasoning processes parents use when choosing care for their young children. Most studies examining parental choice of child care arrangements have focused on demographic factors associated with particular care types (e.g., Fuller, Holloway & Liang, 1996; Lehrer, 1983; NICHD Early Child Care Research Network, 1997; see Pungello & Kurtz-Costes, 1999, for a review). In general, income is found to be the most important factor influencing child care choice, with higher income families selecting in-home care by a nonrelative and child care centers at higher rates than families with lower incomes who choose child-care homes and relative care more frequently.

Those studies in which parents have been asked about the process of choosing child care report conflicting results. In one study of parents who called an information and referral agency, health and safety concerns were rated as most important by the majority of parents, and the caregiver's relationship with the children was second (Bogat & Gensheimer, 1986). In another survey of parents working in a health care institution, health and safety concerns were rated fourth in a list of factors that were most influential in parents' child care decisions, while the caregiver-child relationship was rated first (Rassin, Beach, McCormick, Niebuhr, & Weller, 1991). For the most part, parents rate quality characteristics (e.g., provider relationship with child, educational emphasis, physical environment, equipment, staff training) as being more important than practical ones (e.g., location, hours of operation, availability, cost) (Britner & Phillips, 1995; Fuqua & Labensohn, 1986; Rassin et al., 1991). However, in one large study, mothers most often cited location and hours as important factors in choosing care (Johansen, Leibowitz, & Waite, 1996). At times, parents find that issues of quality must take second place to issues of practicality. For example, Australian parents who were interviewed about child care choices reported that they felt most strongly about the quality of care and education their children received, but these considerations were eclipsed by a need for a care arrangement with flexible hours (Rodd & Milikan, 1994).

The availability of particular types of child care arrangements also limits parents' options in some cases. This is particularly true for parents of infants (Pungello & Kurtz-Costes, 1999) and for low-income families who are not able to obtain subsidies for child care (Bowen & Neenan, 1993). Geographic variation in availability of care types has also been reported, with center care being more widely available in the southeastern U.S. and child-care homes more prevalent in the West (Kisker, Hofferth, Phillips, & Farquhar, 1991).

Family demographics influence parents' reasons for choosing their child care arrangements. Single parents rank practical factors such as cost and location higher in importance than do married parents, who rank quality higher (Turner & Smith, 1983; Turner & Gallegos, 1984). Similarly, parents with higher levels of education and higher incomes have been found to emphasize quality characteristics when choosing a care arrangement; parents who work longer hours are more influenced by practical issues (Johansen et al., 1996). Family factors other than demographics have been less well studied. Johansen et al. (1996) reported that mothers who are stressed (by working more hours and/or having larger families) put

more emphasis on practical concerns when choosing care. Howes and Stewart (1987) found that mothers who show greater sensitivity to their children are also more likely to select a care arrangement based on its quality.

It is not entirely clear that parents' judgments of quality factors match those professionals use as indices of quality, or that parents are always knowledgeable about what factors to look for in choosing care. In one survey of 275 parents, 92% stated that they knew what qualities to look for in a child care arrangement, yet when the parents were asked to name some of the specific qualities they would look for, 50% were unable to do so (Long, Wilson, Kutnick, & Telford, 1996). In many studies, parental satisfaction is used as an index of the quality of care children receive. However, some investigators have found that parental satisfaction with care may not reflect actual quality. For example, parental satisfaction with care tends to be high when parent involvement is encouraged and the care provider listens to the parent (Britner & Phillips, 1995; Fuqua & Labensohn, 1986). Parents typically report high levels of satisfaction even though their care arrangements vary widely (Bogat & Gensheimer, 1986; Long et al., 1996; Rassin et al., 1991; Turner & Gallegos, 1984). Shpancer (1998) interprets these findings as an effect of parents' doing the best they can to cope with marketplace constraints. Other authors suggest that parents, in general, are simply not knowledgeable about what constitutes quality care (Rassin et al., 1991) or do not investigate the quality of care their children receive (Bogat & Gensheimer, 1986; Long et al., 1996).

To date, there have been no studies examining whether the actual quality of care children receive is related to the reasons parents choose care arrangements. Thus, we do not know whether parents who report choosing care based on quality indicators actually place their children in higher quality care settings than parents who use practical criteria for care selection. The present study uses measures of observed child care quality along with parent reports of their satisfaction with the care received to determine whether differences in parents' reasoning about child care result in different experiences for their children.

1.1. Goals of the present study

The present study expands upon previous research in several ways. The sample is a large and diverse group of mothers in 10 different locations across the U.S., each of whom was asked to name the most important reason she chose her 3-year-old child's care arrangement. The family factors examined for their association with these mothers' reasons for choosing care included, in addition to demographic variables, mothers' observed responsiveness to the child and perceived stress associated with parenting. The inclusion of these process-oriented variables allows a multidimensional look at family characteristics that are related to child-care choices. The present study also goes beyond previous work in including an analysis of the actual choices of type and quality of care made by mothers whose reasoning about child care selection is known. Both the type and the observed quality of care arrangements selected by mothers who report different reasons for choosing care are examined along with mothers' reported satisfaction with that care so that the relation between satisfaction and quality can also be determined.

The specific research questions addressed are:

1. How are family factors—demographic characteristics, maternal responsiveness, and parenting stress—related to mothers' reasons for choosing a child care arrangement?
2. What type of care arrangements are selected by mothers who report different reasons for making their choice?
3. Does the quality of care received by children vary according to the reason their mother chose that care?
4. Is mothers' reported satisfaction with a care arrangement related to their reasons for choosing that care?
5. Is mothers' reported satisfaction with a care arrangement related to the observed quality of care her child receives?

2. Method

2.1. Participants

Participants in this study were part of a larger longitudinal project examining child care and child development. The families were recruited at the time of a child's birth from 31 hospitals located in or near Little Rock, AR; Irvine, CA; Lawrence, KS; Boston, MA; Philadelphia, PA; Pittsburgh, PA; Charlottesville, VA; Morganton, NC; Seattle, WA; and Madison, WI. During selected 24-hour sampling periods in 1991, 8,986 women giving birth were visited in the hospital. Of these, 5,416 met the eligibility criteria for the study¹ and agreed to be contacted after their return home from the hospital. A subset of this group was selected in accordance with a conditional-random sampling plan that was designed to ensure that recruited families were demographically diverse in income, education, and ethnicity. When the infants were one month old, 1,364 families (58% of those contacted) with healthy newborns were enrolled in the study. The recruited families included 24% ethnic-minority children, 10% mothers without a high school diploma, and 14% single mothers. Of these families, 1,231 remained in the study through 36 months.

Data for the present study represent the 633 mothers who reported their reasons for choosing care and whose children were observed in care at 36 months. The remaining 598 children were excluded for several reasons: 233 were not receiving at least 10 hours per week of regular care away from the mother, 155 had unobservable child care arrangements (due to either the mothers' or caregivers' refusing the visit or an inability to conduct the observation within the data collection period), 124 did not have complete observation data (due to uncodable or missing observation segments), and 86 mothers did not report reasons for choosing care. The 633 mothers whose data were used in the present study represented families with significantly higher income-to-needs ratios ($M = 4.04$, $SD = 3.48$ vs. $M = 2.97$, $SD = 2.57$) and higher levels of maternal education ($M = 14.73$, $SD = 2.47$ vs. $M = 13.80$, $SD = 2.47$) than the families who were not in care or whose data collection was incomplete.

Of the 633 families, 78.7% were European American, 10.3% were African American, 6.5% were Hispanic, and 4.5% were other minorities; 84.5% were two-parent households. Slightly more than one-quarter of the families (27.4%) were classified as having low incomes

(income-to-needs ratio of less than 2.00), 40.3% had moderate incomes (income-to-needs ratio of 2.00 to 4.49), and 32.3% had high incomes (income-to-needs ratio of greater than 4.49). Of the mothers, 5.8% had less than a high school education, 18.7% had a high school diploma or GED, 33% had attended college, and 42.5% had completed college degrees. Approximately 86% of these mothers (86.2%) were employed, with 60.8% working full-time, defined as 35 hours or more per week. The remaining 25.4% of employed mothers worked on a part-time basis, defined as 1 to 34 hours per week. Fourteen percentage of the mothers did not work outside of the home.

2.2. Procedure

Demographic and child care use data were obtained from parents beginning at 1 month following the child's birth and were updated through frequent visits and phone calls. The data presented here concerning mothers' reasons for choosing a particular type of child care arrangement and satisfaction with that arrangement were collected as part of a telephone interview at 34 months. Measures of child care quality were obtained through observer visits to child care settings and caregiver reports at 36 months. At 36 months, mothers were videotaped in interaction with their child and filled out a questionnaire about parenting stress.

2.3. Measures

2.3.1. Reasons for choosing care

Prior to data collection, ten categories of reasons for selecting care were developed based on prior literature: quality of care providers, quality of environment/equipment, quality of program, fees, hours, location, availability, preference for a relative to provide care, preference for a home environment, and preference for a center environment. The categories used were intended to encompass all the reasons mothers were likely to give and to be straightforward so that mothers' open-ended responses would be easily fit into one of the categories. During the phone interview at 34 months, mothers were asked the *one* most important reason they chose their child's present care arrangement. For the purpose of data analyses, the reasons given by mothers were further collapsed into 3 a priori categories: quality (of care providers, environment/equipment, or program), practical concerns (fees, hours, location, and availability), and preference for a specific type of care. If a child changed care arrangements before observations were conducted, the mother was interviewed again about the new arrangement.

Before beginning data collection, all interviewers were trained on the definitions of each of the ten categories and certified to conduct the phone interview by meeting a criterion of 95% agreement with master interviewers across all items of information obtained on two consecutive practice phone interviews. Reliability was maintained at 95% throughout the data collection period by having interviewers submit audiotaped phone calls to the master interviewers at regular intervals.

2.3.2. Family factors

2.3.2.1. *Demographics.* Information about family income and mothers' education and employment were collected by interview beginning one month following the child's birth and updated at frequent intervals over the first 3 years of the child's life. Information on income and mothers' work hours used in the present report was collected at 36 months. Income-to-needs ratios were calculated by dividing total family income by the poverty rate for the size of the family.

2.3.2.2. *Maternal sensitivity.* When the children were 36 months of age, mothers and their children were videotaped in a structured interaction; videotapes were later coded for specific mother and child behaviors by trained observers at a single location. Mothers' sensitivity to their child was measured as a composite of three 7-point ratings: supportive presence, respect for autonomy, and hostility (reflected). Scores on the sensitivity composite could range from 3 to 21 with higher scores indicating greater sensitivity. To establish inter-rater reliability, 20% of the videotapes were randomly selected to be double-coded. Inter-coder agreement calculated as the intraclass correlation (Winer, 1971) was 0.84. (For more information on the mother-child interaction procedures and coding, see NICHD Early Child Care Research Network, 1999.)

2.3.2.3. *Parenting stress.* Parenting stress was measured at 36 months using the Parent-Role Quality questionnaire (Barnett & Marshall, 1991), completed by mothers during a home visit. Respondents rate 10 rewards (e.g., "How rewarding is being needed by your children?") and 10 concerns (e.g., "How much of a concern is feeling tied down because of the children?") associated with parenting on a 4-point Likert scale (1 = not at all a reward/concern, 4 = extreme reward/concern). The scores for the 10 reward items were reflected and the two scores were summed so that higher scores indicated greater stress associated with parenting (more concerns, fewer rewards). Parenting stress scores could range from 20 to 80, and internal reliability, as measured by Cronbach's alpha, was 0.79.

2.3.3. Child care quality

2.3.3.1. *Quality of the child care experience.* The quality of care children were actually receiving was assessed during 2 half-day visits to each child's primary nonmaternal care setting. Visits were completed within two months of the child's 36-month birthday. The quality measures used in the present analyses were obtained using the Observational Record of the Caregiving Environment (ORCE; NICHD Early Child Care Network, 1996). Each study child was observed for four 44-minute cycles over a two-day period. Each 44-minute cycle consisted of four 10-minute observation periods plus two 2-minute periods for note-taking. Three of the four 10-minute observation periods allowed for the presence or absence of specific caregiver behaviors to be recorded using one-minute time sampling (i.e., observe for 30 seconds, then record for 30 seconds). The fourth 10-minute period was used exclusively to observe and make notes for the qualitative ratings. At the end of each 44-minute cycle, observers rated several aspects of the quality of caregiving on a series of 4-point

qualitative scales, as follows: fostering exploration (children were allowed to manipulate objects in their environment and were provided interesting materials for play); sensitivity to nondistress (care providers showed an awareness of children's needs and interests); intrusiveness (score reflected; care providers interrupted play and imposed their own agenda on the children); detachment (score reflected; care providers appeared emotionally uninvolved with the children and did not attempt to engage children in activities); stimulation of cognitive development (care providers encouraged children's development and learning, for example, by encouraging the child to participate in activities or elaborating on children's verbalizations); positive regard (caregivers spoke in a warm tone, praised children, or showed physical affection); and flatness of affect (score reflected; caregivers exhibited blank, impassive facial expressions or unemotional verbal tones). These 7 ratings were summed to represent an index of the quality of the child care experience for the observed child. Internal consistency for the quality score was measured using Cronbach's alpha and was 0.82. Interobserver reliability was measured using both videotaped and live observations. Each child care observer participated in three rounds of reliability tests, consisting of six tapes each that had been coded by "gold standard" observers, at regular intervals throughout the span of data collection; agreement with the standard averaged 0.80 on these tapes. Live reliability was conducted for 16% of the actual child-care visits; agreement between pairs of observers averaged 0.90.

2.3.3.2. Quality of the physical environment in child care. Two different measures of the quality of the physical environment in child care were used, one for home-based and one for center-based child care arrangements. A modified version of the HOME Inventory (CC-HOME; Caldwell & Bradley, 1984) was used to index the quality of the home-based child care arrangements in which children were observed for this study. The CC-HOME includes both interview and observation components and assesses caregivers' responsiveness, acceptance, and involvement with the child as well as organization of the care setting, presence of learning materials, and variety of experiences available to the child. The CC-HOME consists of 58 yes/no items. The Total scale, used in this study, has a range of 0 to 58, with higher scores indicating a higher quality care environment. Cronbach's alpha on this scale was 0.88. Interobserver reliability was established through training and certification with both a "gold standard" videotape and a videotape of the research assistant self-administering the measure; for both, the research assistant's scores had to match those of the master coder at 90% or better. Observers maintained a criterion of 90% agreement with the master coder throughout data collection.

Assessment of environmental quality in the child care centers observed for this study was based on a preliminary version of the Assessment Profile for Early Childhood Programs (Abbott-Shim & Sibley, 1987). Three additional items from Wachs (1991) were added to assess quiet, crowding, and clutter. The total score used in this study represents a measure of the child's environment including the organization and availability of developmentally appropriate toys and learning materials and the use of a variety of techniques to teach children while positively managing their behavior. The modified Profile used in this study consisted of 74 yes/no items: 17 items from the Safety and Health subscale, 17 items from the Learning Environment subscale, 22 items from the Curriculum subscale, 15 items from

the Interacting subscale, and the 3 items from Wachs (1991). Total scores on the measure could range from 0 to 74 with higher scores representing a more positive overall child care environment. Cronbach's alpha was 0.66 on this scale. Prior to beginning data collection, observers attended group training offered by the developers of the Profile. The scale developers accompanied the observers on practice visits and provided written responses to observers' questions throughout data collection. During the practice visits, observer agreement with the scale developers and other extensively trained observers was assessed. Overall agreement across items and observers was 80%.

2.3.4. Mothers' satisfaction with the child care arrangement

During the 34-month phone interview, mothers were asked about their satisfaction with the care their child was receiving. Two questions were asked: (a) whether they would choose their primary child care arrangement again (1 = choose again without hesitation, 4 = definitely not choose) and (b) if they would recommend their child care arrangement to a friend (1 = strongly recommend, 4 = advise friend against). A satisfaction variable (range = 2 to 8) was created by summing the reflected scores for these two questions so that higher scores indicated that mothers were more satisfied with their care arrangement.

3. Results

3.1. Mothers' reasons for choosing care

More than half the mothers interviewed in the study (354 of 633, or 55.9%) reported that quality was the most important factor in selecting a care arrangement. Of these, 275 considered quality of care providers most important, 23 considered quality of the environment or equipment most important, and 56 considered quality of the program most important. Another 137 mothers (21.7%) considered practical factors to be most important: 40 cited cost, 21 hours, 64 location, and 12 availability. In addition, 142 mothers (22.4%) reported a preference for a particular type of care arrangement: 19 preferred centers, 42 preferred a home environment for care, and 81 preferred care by a relative (including care by fathers).

3.2. Family factors related to reasons for choosing care

The means and standard deviations for family income-to-needs ratio, number of hours mothers worked, mothers' sensitivity to their child, and reported parenting stress for the groups of mothers who reported quality, practicality, or a preference for a specific type of care as the reason for choosing their child care arrangement are presented in Table 1. In general, mothers had moderate family incomes and were employed part-time. They were generally rated as sensitive with their child and reported low to moderate levels of stress. Intercorrelations among the family variables are presented in Table 2. Mothers with higher incomes were rated as more sensitive and reported lower levels of stress than mothers with lower incomes.

To examine whether family factors were significantly associated with mothers' reasons for

Table 1

Means and standard deviations for family background and process variables by reasons for choosing care

	Reasons for choosing care		
	Quality	Practical concerns	Preference
Family Variables			
Income-to-needs	4.65 (3.87)	2.99 (2.55)	3.55 (2.90)
Hours mother works	30.28 (16.22)	34.73 (15.22)	29.99 (17.30)
Mother sensitivity	17.60 (2.69)	16.49 (2.71)	17.47 (2.45)
Parenting stress	33.59 (6.31)	35.39 (6.90)	33.14 (6.53)
N	354	137	142

Note. Standard deviations are in parentheses.

choosing a particular care arrangement, multinomial logistic regression analyses were used. This type of analysis estimates the effects of the independent variables on the likelihood of belonging to one of the three categories of reasons for choosing child care—quality, practicality, or preference for a particular type of care. Since the dependent variable in this study has more than two levels, multiple models were used so that all possible combinations of the three categories of the dependent variable could be studied two at a time (Long, 1997, p. 149). Thus, three comparison models were used: 1) quality versus practicality; 2) quality versus type preference; and 3) practicality versus type preference.

Analyses were conducted using a model-based approach with the demographic factors (income-to-needs ratio and maternal work hours) and the family process variables (maternal sensitivity and parenting stress) added as explanatory factors to a model with no predictors. In order to conduct these analyses, each of the four independent variables had to be categorized and dummy coded. Families' income-to-needs ratios were categorized as low (<2.0), moderate (2.0–4.49), and high (>4.49); mothers' work hours as not working (0 hr/week), working part-time (1–34 hr/week), and working full-time (>34 hr/week); sensitivity as high versus moderate using a median split; and parenting stress as low (<31), moderate (31–36), and high (>36).

The addition of the four explanatory variables to a model with no predictors (intercept only model) indicated a significant improvement in model fit, $\chi^2(14) = 60.99, p < .001$. Likelihood ratio tests were then used to determine whether each of the four individual effects were related to mothers' reasons for choosing a child care arrangement. The test for each effect is based on a change in model fit, as assessed by a -2 log likelihood value, if the effect is removed from the full model containing all four explanatory variables. That is, if a variable

Table 2

Intercorrelations among the family background and process variables

	Maternal work hours	Maternal sensitivity	Parenting stress
Income-to-needs	.05	.30***	-.11**
Maternal work hours		-.06	-.04
Maternal sensitivity			-.05

Note. ** $p < .01$, *** $p < .001$.

Table 3

Likelihood ratio tests for the individual effects in the multinomial logistic regression analyses ($N = 599$)

Effect	-2 log likelihood of reduced model	Chi-Square difference	Degrees of freedom
Full Model	268.76		
Income	294.91	26.15***	4
Mother work status	283.42	14.66**	4
Mother sensitivity	270.78	2.01	2
Parenting stress	281.26	12.50*	4

Note. The chi-square difference statistic is calculated as the difference in -2 log likelihoods between the full model with all four variables entered and a reduced model. The reduced model is formed by eliminating an effect from the full model. The null hypothesis is that all parameters of that effect are 0.

* $p < .05$, ** $p < .01$, *** $p < .001$.

contributes significantly to the model, its removal will be indicated by a change in overall model fit. Results are shown in Table 3. These differences in -2 log likelihood values are distributed as a chi-square with degrees of freedom equal to the number of degrees of freedom being removed from the full model. For example, removing income from the full model containing four variables would produce a significant change in fit to the reduced model with three variables ($\chi^2(4) = 26.15, p < .001$). Similar results would occur with maternal work hours and parenting stress. Maternal sensitivity, on the other hand, could have been eliminated from the model without producing a change in model fit ($\chi^2(2) = 2.01, p = .365$).

To examine differences in the independent variables among the groups of mothers who made child care choices for different reasons, the multinomial logistic regression with each of the four variables entered in the equation was examined for the three comparison models. This type of analytic procedure simultaneously estimates the effects of the independent variables on the probability of belonging to the reference category (defined in these analyses as quality in Models 1 and 2 and practicality in Model 3) as compared with each of the other categories. Results are shown in Table 4. The odds ratio, shown as $exp(b)$ in Table 4, indicates whether levels of each of the independent variables are significant predictors of mothers' reasons for choosing care. Odds ratios higher than 1.0 indicate a higher likelihood of membership in the comparison category than the reference category; odds ratios lower than 1.0 indicate a higher likelihood of membership in the reference category.

In models 1 and 2, with mothers who made their child care choice based on quality serving as the reference group, income was found to significantly discriminate the groups. Families with low or moderate incomes were much more likely (3.880 and 2.104 times, respectively) to choose care based on practicality than those with high incomes (Model 1). Similarly, low and moderate income families were more likely to base their child care choice on preference for a particular type of care than on quality (Model 2). Therefore, mothers with higher incomes were significantly more likely to choose care because of its quality. There was no significant income-related difference for mothers choosing on the basis of practical concerns versus preference for a certain type of care (Model 3).

Mothers who were not working or were working part-time were more likely than mothers

Table 4
Multinomial logistic regression results of reasons for choosing care ($n = 599$)

	Model 1 Practicality vs. Quality		Model 2 Preference vs. Quality		Model 3 Preference vs. Practicality	
	<i>b</i>	<i>exp(b)</i>	<i>b</i>	<i>exp(b)</i>	<i>b</i>	<i>exp(b)</i>
Family Income						
Low	1.356	3.880***	.907	2.476***	-.449	.638
Moderate	.744	2.104**	.593	1.810*	-.151	.860
High ^f	—	—	—	—	—	—
Maternal Work Status						
Not Working	-.791	.453*	.001	1.011	.802	2.229*
Part-time	-.838	.433**	.009	1.092	.926	2.525**
Full-time ^f	—	—	—	—	—	—
Maternal Sensitivity						
Low	.358	1.431	-.001	.994	-.364	.695
High ^f	—	—	—	—	—	—
Parenting Stress						
Low	-.461	.631	.128	1.137	.590	1.803*
Moderate	-.737	.479**	-.421	.656	.316	1.372
High ^f	—	—	—	—	—	—
Intercept		-1.054		-1.286		-.232

Note. Sample size for this analysis was reduced from 633 to 599 due to missing data for at least one of the four independent variables in the model. Therefore, only families with complete data are included in the analysis.

Intercept only model $-2 \log$ likelihood = 329.751; Full model $-2 \log$ likelihood = 268.762; Chi-square difference = 60.99***, df 14.

$exp(b)$ is the exponential of the estimated coefficient b . It represents the odds of belonging to the reference category of the independent variable versus either of the remaining categories.

Subscript of r within a category indicates which group served as the reference category.

* $p < .05$, ** $p < .01$, *** $p < .001$

working full-time to choose child care based on quality factors rather than practical ones. No differences in maternal work hours were found for those mothers choosing care of a particular type versus mothers reporting quality to be most important. In the comparison of mothers reporting either preference for a type of care or practicality to be most important, those that were not working or were working part-time were more likely to choose child care based on preference for a particular type of care than on practical reasons. These findings indicate that mothers working full-time were more likely to base their child care choice on practical issues than those working part-time or not at all.

Maternal sensitivity was not significantly related to the reported reasons for choosing care in any of the three models. No relationship was found for mothers reporting low amounts of parenting stress versus those with high stress when practicality was assessed in comparison to quality; however, mothers reporting moderate amounts of parenting stress were more likely than highly stressed parents to choose child care based on quality rather than practical concerns. When preference versus practicality was examined, mothers reporting low levels of stress were significantly more likely to choose care based on preference for a particular type of care as compared to parents with high levels of stress. Thus, practical concerns were of most importance to highly stressed mothers.

Table 5

Percentage of families choosing care based on quality or practical concerns by type of care observed

	Type of care currently used		
	Center	Non-relative home environment	Relative care
Quality	51.7% (n = 180)	35.1% (n = 122)	13.2% (n = 46)
Practical concerns	44.8% (n = 60)	27.6% (n = 37)	27.6% (n = 37)

Note. Nine families (six who cited quality and three who cited practical concerns) were in mother-only care at the time of data collection and therefore are not included in this analysis.

3.3. Type of care arrangement used

The second set of analyses examined the type of care mothers used—child care center, care in a home environment (provided by a nonrelative), or relative care—based on their reasons for choosing care. It was expected that mothers choosing care based on preference for a particular type of arrangement would have children attending that type of chosen arrangement. This was found to be true for 98% of these families. Of the 19 who reported preference for center-based care, all had chosen centers; 41 of the 42 families who preferred home-based care had chosen a home environment; and 79 of the 81 families who preferred care by a relative were receiving such care.

Table 5 shows the types of care selected by families whose child care decision was based on quality or on practical concerns. More than half the children whose mothers reported choosing care for its quality were enrolled in a child care center, and one-third were receiving home-based care by a nonrelative. Fewer than 15% were cared for by a relative. In families where child care choice was based on practical concerns, nearly half of the children attended a child care center, while equivalent percentages of children were cared for either by a nonrelative in a home environment or by a relative.

Differences in type of care for families who chose care based on quality or practical concerns were tested using a 3 (type of care) \times 2 (reason for choosing care) chi-square test for independent samples. The result indicated a significant association between type of care used and reason for choosing care, $\chi^2(2) = 14.20, p = .001$. Follow-up tests were conducted controlling for Type I error using a Bonferroni procedure. Follow-up chi-square tests comparing quality versus practicality as the reason for choosing care revealed that mothers viewing quality as important used center care or home-based care more often than relative care ($\chi^2(1) = 11.25, p = .001$; $\chi^2(1) = 11.66, p = .001$, respectively), while no differences were found for mothers who chose on the basis of practical concerns. Also, no significant differences were found between the quality and practicality groups in the proportions of mothers choosing home-based versus center-based care, $\chi^2(1) = 0.16, p = .693$.

3.4. Quality of care

When mothers choose care based on quality, do their children receive higher quality care than children whose mothers choose care based on practical reasons or preference for a particular type of care? A series of ANOVAs was conducted to examine the quality of

children's experiences in care and the environmental quality of care settings selected by parents whose choices were based on different criteria. The observed quality of the child care experience, as assessed by the ORCE, was found to be significantly different for each of the three choice groups, $F(2,630) = 4.22, p = .015, \eta^2 = 0.013$. Follow-up tests using the Dunnett's C test for unequal variances showed that the quality group did receive significantly higher quality care ($M = 19.71, SD = 3.28$) than the practicality group ($M = 18.88, SD = 3.44$). However, the children whose care experiences were rated highest in quality were those whose mothers selected a particular type of care ($M = 19.92, SD = 2.91$). As a posthoc analysis, differences in quality of the three types of care comprising the preference group were examined to determine if one of the subgroups was responsible for the quality findings. No significant differences in quality were found, $F(2, 139) = 0.80, p = .451$.

Differences in environmental quality associated with reasons for choosing care were examined using the CC-HOME scores for children in home-based child care settings and the Profile total scores for those in centers. A one-way ANOVA revealed a difference in means on the CC-HOME similar to the pattern found for the observed quality index previously described, $F(2, 361) = 6.93, p = .001, \eta^2 = 0.037$. Follow-up analyses using the LSD procedure for equal variances showed that children whose mothers chose their care based on practical reasons attended home-based child care settings with lower environmental quality ($M = 36.96, SD = 9.62$) than those whose care was chosen on the basis of either quality ($M = 40.92, SD = 8.26$) or preference for a particular type of care ($M = 41.27, SD = 8.23$). There was no difference between the quality and preference groups.

No significant differences were found for any of the groups using the Profile to index environmental quality of center-based care.

3.5. Satisfaction with care arrangement

Nearly 70% of all mothers reported that they were "very happy" (score of 8 on a scale from 2 to 8) with their child care arrangement. Correlational analyses indicated that mothers' level of satisfaction was positively related to the observed quality of care their children were receiving, $r = 0.22, p = .001$, as well as the quality of the environment for home-based types of care, $r = 0.09, p = .021$.

The mean satisfaction ratings for the quality group was 7.69 ($SD = 0.66$); for those choosing because of practical concerns, 7.10 ($SD = 1.20$); and for the preference group, 7.49 ($SD = 0.86$). A one-way ANOVA indicated there were significant differences in satisfaction across these three groups, $F(2, 626) = 23.745, p = .001, \eta^2 = 0.071$. Follow-up tests using the Dunnett's C test for unequal variances revealed that mothers choosing care on the basis of quality were more satisfied than mothers choosing for practical reasons, Cohen's $d = 0.70$, or those choosing due to a preference for a particular type of child care setting, Cohen's $d = 0.28$. Satisfaction was also significantly lower for mothers who chose child care for practical reasons as compared with those choosing on the basis of preference, Cohen's $d = 0.37$.

4. Discussion

Although a wide variety of child care arrangements exist, mothers' choices of care are sometimes constrained by their financial and employment situations. Based on previous studies, it was hypothesized that family demographic variables would be related to whether mothers chose care based primarily on practical or quality factors (Johansen et al., 1996; Turner & Smith, 1983). This hypothesis was supported in the present study in that mothers whose family incomes were lower and who worked more hours were more likely to consider practicality to be more important than quality in choosing a care arrangement. Additionally, preference for a particular type of care setting versus quality was also related to lower income, but not to longer work hours. The results may reflect mothers' awareness of the practical constraints on the types of care that are realistically available to them. Family needs may override mothers' concerns about quality.

The complex process of choosing a care arrangement is likely to involve more than family demographics. Family process variables reflecting the nature of the mother-child relationship seem likely to have the potential to impact child care decisions. The present study was unique in its inclusion of two family process variables, maternal sensitivity and parenting stress. Maternal sensitivity was not related to the reasons mothers gave for selecting a care arrangement. However, mothers experiencing higher levels of stress in their roles as parents were influenced more by practical concerns than by preference for a particular type of provider than mothers with low stress. Highly stressed mothers were also more likely than moderately stressed mothers to give more weight to practicality, rather than quality, in choosing their child-care arrangement. Family process variables such as sensitivity and stress have not typically been examined in previous studies of the reasons why mothers select certain care settings. Howes and Stewart (1987) found that mothers who experienced higher levels of stress and were more restrictive in play with their children selected lower quality care than mothers who were less stressed and more sensitive. The present study provides some support for this earlier finding.

Mothers' primary reasons for choosing care were related to the type of care they selected. Relative care was chosen least often by mothers who reported that quality of the child care setting was considered most important. Previous research has indicated that relative care does tend to be of lower quality than other home-based care (Kontos, Howes, Shinn, & Galinsky, 1995). In addition, parents begin to associate quality in child care with educational factors at about age 3 (Johansen et al., 1996); thus, parents of children just reaching their third birthday may be identifying as high quality care settings that are likely to provide social and educational benefits to children.

The expectation that mothers who reported choosing care based on quality would select higher quality care arrangements than mothers who reported choosing care based on practical concerns was supported. This finding holds serious implications for the children of mothers constrained by limitations related to income, work hours, or stressful family situations. Not only are mothers with lower incomes and longer work hours curtailed in their choices of care arrangements, but there is a greater likelihood that the care their children receive will be of lower quality than the care chosen by mothers who are not as restricted by demographic factors. While family factors generally have a greater impact on child outcomes than aspects

of nonmaternal child care (NICHD Early Child Care Research Network, 1998), disadvantaged children benefit from being in high-quality care (Peisner-Feinberg & Burchinal, 1997; Scarr, 1998). The findings of the present study indicate some children from lower-income homes may be experiencing a double risk in that they live in disadvantaged homes and are more likely to receive lower quality nonmaternal child care.

The highest quality of care obtained by families in this study was selected by mothers who chose a particular type of care. We can only speculate on the reasons for this finding, but perhaps these mothers were expressing a preference for a specific person or a particular care setting, and they may have known the care being provided was of high quality. Thus, these mothers may have made their child care choices based on more complete knowledge of a particular care environment or provider than is available to many parents. Continued efforts to educate parents on characteristics of high quality care and how to select care could help make more parents into selective consumers.

It was expected that mothers who reported choosing care based on quality would report more satisfaction with their care arrangement than mothers who reported they were influenced by practical concerns. This prediction was supported in the present study. Mothers choosing care primarily for practical reasons were least satisfied with their care. Mothers' satisfaction ratings were also found to correlate significantly with both observed and environmental quality, although the correlations were low. Previous studies have reported satisfaction to be unrelated to the actual quality of a care arrangement (Britner & Phillips, 1995; Shpancer, 1998). Because most mothers rate their satisfaction as very high, regardless of the type or characteristics of the care environment, satisfaction is not as useful a measure as observed quality.

The use of trained observers to gather objective ratings of child care quality is one of the strengths of the present study. Numerous studies have relied on mothers' reports of satisfaction and perceived quality of care (Fuqua & Labensohn, 1986; Ledesma, Fitzgerald, & McGreal, 1980; Long et al., 1996; Roopnarine, Mounts, & Casto, 1986; Turner & Smith, 1983). In addition to lacking training in evaluating quality of care, mothers are generally present in care settings only during drop-off and pick-up times. They are not able to see the varying interactions caregivers have with the children and therefore do not accurately capture the nature of the caregiving environment.

The inclusion of family process variables was another strength of the present study. Parenting stress added significant information regarding the primary reason mothers choose care, but maternal sensitivity did not. This may be related to the fact that mothers in this study were rated as highly sensitive overall. A sample with more variation in maternal interactions, such as may be found in a higher risk population, may further open the door for future investigations of the impact of the mother-child relationship on child outcomes through the selection of care arrangements.

Finally, the present study had the benefit of including a sample that represents numerous locations in the United States. Diversity in location, income, and parental education aid in generalization of the results to other populations. Further research that included larger numbers of ethnic minority families would help in the examination of cultural differences in child care decisions that have been reported in previous research (Becerra & Chi, 1992; Caughy, DiPietro, & Strobino, 1994; Fuller et al., 1996).

Another limitation to the interpretation of these findings is the lack of data regarding the actual availability of care arrangements in each of the locations in which the participants lived. Some mothers may have excluded consideration of some types of care because they knew that care was not readily available to them. However, only 12 of the mothers interviewed cited availability as the primary factor in their choice of care arrangement. These 12 mothers were from diverse geographic areas, and some of their children were placed in center care, some in child care homes, and some in relative care. Further, all types of care were selected by some families at every location. Thus, it may be that regional differences in care availability have a greater effect on the initial decision to place a child in care at all, as reported by Singer, Fuller, Keiley, and Wolf (1998), than on the particular care arrangement selected.

Overall, the present study adds to the existing literature on child care choices by examining conditions that are related to mothers' child care decisions. The results point to the need to enhance mothers' abilities to be knowledgeable consumers of child care. More information about strategies to find available care (Bogat & Gensheimer, 1986) and assess the quality of care settings (Long et al., 1996) would benefit mothers when making child care choices. Most of all, the potential impact of practical family concerns on the quality of care children receive was emphasized. Although mothers can educate themselves and improve their abilities to make informed child care decisions, their choices of care arrangements will still be constrained by practical concerns such as cost and hours of operation. Providing subsidies to lower-income working families who are not in poverty may help many mothers expand their child care options and result in higher quality child care experiences for children.

Notes

1. Exclusion criteria were: mother younger than 18 years of age; family planning to move out of the area; multiple birth; child hospitalized for more than 7 days following birth or having a known disability; mother with serious medical problem or acknowledged substance abuse; mother who did not speak English; or family living more than an hour from the lab site or in an unsafe neighborhood as determined by local police.

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