

Child Care Instability and Maternal Parenting Stress and Behaviors

Alejandra Ros Pilarz & Heather D. Hill

University of Chicago

Low-income working families often package together multiple and unstable child care arrangements in order to meet fluctuating and unpredictable work demands (Chaudry, 2004; Scott, London, & Hurst, 2005). Prior research has found that unstable and multiple arrangements are associated with adverse behavioral outcomes for young children (Morrissey, 2009; NICHD, 1998; Pilarz & Hill, 2013). This relationship is presumed to operate at least partially through parenting stress and parenting behaviors, yet little is known about how child care instability relates to parenting outcomes.

Qualitative research suggests that low-income working parents often perceive child care changes and managing multiple arrangements as stressful (Chaudry, 2004; Scott, London, & Hurst, 2005). Parenting stress, in turn, may adversely affect parenting behaviors, potentially leading to lower levels of parental engagement and warmth and a greater likelihood of using physical discipline. To the extent that child care instability adversely affects parenting, this may help explain the observed effects of instability on children's behavior. Moreover, the associations between child care instability and parenting may depend on the family's level of socioeconomic resources. Families with more resources may be better able to cope with child care instability and thus, the effects of child care instability may be less pronounced.

The purpose of this study is to examine the relationship between three types of child care instability—long-term instability, multiplicity, and the use of back-up arrangements—and mothers' parenting stress and behaviors when children are approximately 3 years old. We address the following three questions: 1) Does child care instability relate to maternal parenting stress and behaviors; 2) if so, do these relationships mediate the relationship between child care instability and children's behavioral outcomes; 3) and are there differences in these pathways by the family's level of socioeconomic resources (family income and maternal education)?

Data and Methods

This study uses data from the first three waves (baseline, 1-year, and 3-year) of the Fragile Families and Child Well-Being Study (FFCWS), a birth cohort study of 4,900 children born between 1998-2000 in 20 large, U.S. cities. The study oversampled non-marital births. We limit our analytic sample to children in non-parental care at the 3-year wave ($N=1,962$).

Our three measures of child care instability are defined as follows. Long-term instability is the number of mother-reported changes in arrangements between the 1-year and 3-year waves. Multiplicity is an indicator for using two or more concurrent arrangements, and back-up arrangements is an indicator for using a "special" arrangement in the past month due to the usual arrangement falling through. We measure parenting stress with the mean score on four items that capture mothers' perceived stress and difficulty with raising a family, with higher scores indicating higher levels of stress ($\alpha=.65$). We also create a dichotomous measure of high parenting stress, indicating a mean score of at least one standard deviation above the mean. Maternal engagement is the mean score on 13 items that measure the frequency with which the mother engages in activities with the child (e.g. singing songs), with higher scores indicating higher levels of engagement ($\alpha=.67$). We use a dichotomous variable to measure mothers' use of any physical discipline (i.e. spanking) in the past month compared to none. In mediation analyses, children's externalizing and internalizing behavior problems are measured with a sum score on items from the Child Behavior Checklist ($\alpha=.86$ and $\alpha=.82$, respectively). In our prior

work with the FFCWS (Pilarz & Hill, 2013), we found that the three types of child care instability are associated with higher levels of externalizing and internalizing problems at age 3.

We use multivariate OLS regression (for continuous outcomes) and logistic regression (for dichotomous outcomes) to regress each parenting outcome on the three measures of child care instability, controlling for a large set of child- and family-level characteristics that may be associated with both child care instability and parenting outcomes. To test for moderating effects of family income and maternal education, we conduct sub-group analyses with the following groups: family income below/above 200% of the federal poverty line; and maternal education below/above some college attendance. We conduct preliminary tests of mediation by regressing our three child care instability variables (and controls) without parenting outcomes on children's behavioral outcomes at age 3, and then adding the three parenting outcomes to the same model and comparing the child care instability coefficients across the two nested models.

Preliminary Results

Table 1 presents descriptive statistics for the sample. On average, children have experienced approximately one change in arrangements, 14% currently experience multiplicity, and 29% experience back-up arrangements. Overall, the sample is predominantly disadvantaged in terms of socio-economic status. At baseline, more than half of mothers had income less than twice the poverty line, only one-quarter were married, and only 13% had completed college.

Preliminary regression results shown in Table 2 suggest that overall child care instability is associated with higher levels of parenting stress, lower levels of maternal engagement, and a greater likelihood of using physical discipline, with the exception that the use of back-up arrangements is not associated with maternal engagement and multiplicity is not associated with the use of physical discipline. In sub-group analyses (not shown), we find evidence that the effects of child care instability on parenting stress and maternal engagement are stronger among mothers without any college attendance and among low-income mothers. In preliminary tests of mediation (not shown), we find that the effects of child care instability on children's behavioral outcomes are attenuated when parenting stress and behaviors are accounted for, suggesting that parenting outcomes may mediate these relationships.

Next Steps

In subsequent analyses, we are testing the robustness of our findings by conducting fixed-effects analyses using the 1-year and 3-year waves of data. We are conducting more formal tests of moderation and mediation using Kohler, Karlson, and Holm's (2011) test for decomposing direct and indirect effects in nested models and using children's behavioral outcomes at age 5.

References

- Chaudry, A. (2004). *Putting children first: How low-wage working mothers manage child care*. New York: Russell Sage Foundation.
- Kohler, U., Karlson, K. B., & Holm, A. (2011). Comparing coefficients of nested nonlinear probability models. *The Stata Journal*, 11(3), 420-438.
- Morrissey, T. W. (2009). Multiple child-care arrangements and young children's behavioral outcomes. *Child Development*, 80(1), 59-76.
- NICHD ECCRN. (1998). Early child care and self-control, compliance, and problem behavior at twenty-four and thirty-six months. *Child Development*, 69(4), 1145-1170.
- Pilarz, A. R. & Hill, H. D. (2013). *Unstable and multiple child care arrangements and young children's behavior*. Unpublished manuscript.
- Scott, E. K., London, A. S., & Hurst, A. (2005). Instability in patchworks of child care when moving from welfare to work. *Journal of Marriage and Family*, 67(2), 370-386.

Table 1. Descriptive Statistics for Key Variables and Sample Characteristics (N=1,962)

	Mean (SD) or %
Child Care Instability	
Long-term instability	.80 (1.09)
Multiplicity	13.60
Use of back-up arrangements	29.10
Parenting Outcomes	
Parenting Stress (mean score)	2.24 (.65)
High Parenting Stress (yes/no)	16.87
Maternal engagement	5.01 (.90)
Use of physical discipline (yes/no)	55.40
Child Behavior Outcomes	
Externalizing Behavior Problems	9.48 (5.76)
Internalizing Behavior Problems	9.17 (5.77)
Sample Characteristics	
Mother's race/ethnicity	
White, non-Hispanic	23.19
Black, non-Hispanic	52.50
Hispanic	20.90
Other race/ethnicity	3.41
Marital status (at baseline)	
Married	24.57
Cohabiting	33.94
Visiting	28.75
Other relationship	12.74
Mother's level of education (at baseline)	
Less than high school degree	24.01
High school degree or equivalent	32.67
Some college attendance	30.28
College degree or higher	13.05
Family income as % of FPL (at baseline)	
0-49%	14.78
50-99%	14.12
100-199%	24.52
200-299%	17.58
300%+	29.00

Source: FFCWS Baseline, 1-Year and 3-Year Wave Mother Surveys and 3-year In-Home Interview

Note: Results are unweighted. All variables were measured at the three-year wave unless otherwise noted.

Table 2: Preliminary Regression Results Predicting Mothers' Parenting Outcomes at 3-year Wave (N=1,962)

	Parenting Stress: Mean Score	Parenting Stress: High Stress	Maternal Engagement	Use of Physical Discipline
	<i>B (SE)</i>	<i>B (SE)</i> <i>Odds Ratio</i>	<i>B (SE)</i>	<i>B (SE)</i> <i>Odds Ratio</i>
Long-term instability	.04 (.02)*	.07 (.06) 1.07	-.06 (.02)**	.17 (.05)*** 1.18
Multiplicity	.11 (.07)^	.35 (.18)* 1.43	-.14 (.07)*	.23 (.15) 1.26
Use of back-up arrangements	.10 (.05)^	.30 (.14)* 1.36	.04 (.05)	.29 (.11)** 1.33

Source: FFCWS Baseline, 1-Year and 3-Year Wave Mother Surveys

Note: Parenting stress and maternal engagement scores are standardized. Results are unweighted. OLS regression was used for parenting stress mean score and maternal engagement. Logistic regression was used for high parenting stress and use of physical discipline. All models include the following control variables measured at the 3-year wave (unless otherwise noted): child gender; child age; child temperament at 1-year wave; child health status; mother's age at baseline; mother's race/ethnicity; mother's marital status at baseline; mother's level of education at baseline; maternal depression; mother's perceived social support; the quality of mother's relationship with child's father; family income at baseline; number of adults in the household; number of children in the household; mother's employment status; whether mother works any nonstandard hours; type of child care used; number of hours of child care used per week; and whether the child was in non-parental care at the 1-year wave.

^ p<.10; *p<.05; **p<.01; ***p<.001

