

Shift Work and the Parent Child Relationship

Specific Aims

For men and women in the United States today, the average workday is no longer the traditional nine-to-five day shift with evenings left free for family and leisure time. Evening, night and rotating shifts have become more and more a part of working life. In fact about 1 in 3 dual earner couples in America have at least one member working a non-standard shift (Presser 1994). However, the growth in nonstandard work shifts has not been accompanied with a proportionate increase in the number of studies devoted to the topic--particularly on effects of maternal nonstandard shift work on parent/child relationships. Although the effect of maternal employment on children has been researched quite substantially in many aspects, the work schedules of mothers have yet to be taken into account in the family literature.

This study illuminates the connection between maternal nonstandard shift work and the quality of the parent/child relationship. I determine whether the type of nonstandard shift (evening, night or rotating) matters. Maternal shift work is expected to diminish the quality of the mother/child relationship, and that relationship will be mediated by the mental health of the mother and time spent with the child.

Background and Significance

Shift work has been a relatively understudied topic until recently. What little we know mostly involves studies of the marital relationship. We know that shift work may negatively affect marital stability, especially in families with children (Presser 2000). Although there is evidence that the husband/wife relationship can be affected by nonstandard work hours, no study has directly studied the effect of shift work on the parent/child relationship. We can, however, find some indirect evidence suggesting that the parent/child relationship may be affected by parental shift work. A study that documented the effects of shift work on marital quality found that one of the key problem issues

reported by couples working nonstandard shifts was conflict over parenting (White and Keith 1990), an indication that the parent/child relationship might be more strained in shift work families. Other research has shown that shift work can make planning family activities more difficult due to the nonstandard work hours of one parent (Staines and Pleck 1983), reducing time that families can spend together as a group. One particular qualitative study suggests that husbands and wives in shift work couples rarely parent at the same time due to nonoverlapping schedules. They often rely on "solo parenting" while their spouse is at work. Not surprisingly, they face some of the same parenting challenges of single parents (Hattery 2001).

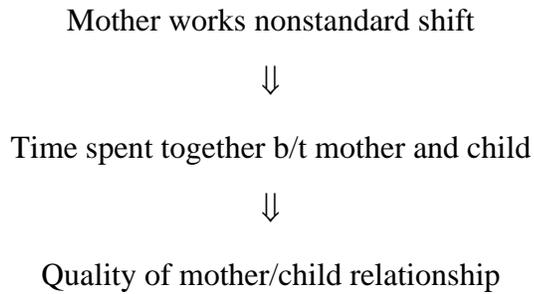
What are the mechanisms through which shift work affects the parent/child relationship? The first may simply be an issue of time-availability. Working a nonstandard shift may prevent mothers from spending time with school aged children who attend school during the day and are home evenings and weekends when the mother may be at work. This "absence-effect" may diminish the mother/child bond by limiting available quality time between mother and child.

A possible "spill-over effect" occurs when stress and exhaustion from the job spill over into family life. Nonstandard shift workers have been found to experience poorer mental health (Mellon 1986), which can negatively affect parenting quality (Jackson et. al 2000). Although we know that work may spill over into married couples' relationships, long hours and role overload from work may also negatively affect the quality of the relationship between parents and adolescent sons and daughters (Crouter, Bumpass, Maguire and McHale 1999). The "spill-over effect" of work and family may extend to the parent/child relationship. However, it is possible that the mother child relationship is more resilient than the marital relationship and, therefore, less affected by parental work schedules.

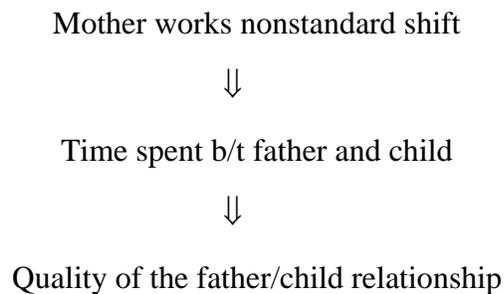
Hypotheses

1. When mothers work a nonstandard shift (particularly the evening shift), the mother/child

relationship will be weaker than when mothers work a standard day shift.



2. When mothers work a nonstandard shift, the father/child relationship will be stronger than when mothers work a standard day shift. This hypothesis is based on research that shows that fathers may become more involved in family work when mothers work nonstandard shifts (Presser 1994).



Research Design and Methods

This study uses the 2000 wave of the National Longitudinal Survey of Youth 1979 (NLSY79), a nationally representative sample of 12,686 young men and women who were 14-22 years old when they were originally surveyed in 1979. The respondents were interviewed annually through 1994 and

are currently being interviewed every two years. For the purposes of this study, the sample will be limited to employed mothers (at least 20 hours per week) with children ages 10-14 living with both biological parents. The 10-14 age group is ideal for two important reasons. First, children at this age are mostly in school during the day and at home in the evenings--where there is more potential for nonoverlapping schedules of the mothers working nonstandard shifts and their children. Second, the NLSY provides *child reported* data on the parent/child relationship and time spent with each parent for this age group.

This study has two sets of models for the analysis--one for the mother/child relationship and one for the father/child relationship. Ordinary Least Squares regression will be used to regress relationship quality on the mother's shift work status, as well as to estimate the coefficients of the paths specified above.

The dependent variables, mother/child and father/child relationship quality, is measured with four questions about the child's self-reported evaluation of his/her relationship with both the mother and father. (alpha=.65)

How often does each of your parents talk over important decisions with you?

How often does each of your parents listen to your side of an argument?

How close do you feel to each of your parents?

How well do you and each of your parents share ideas or talk about things that really matter?

The child was asked to report on each of these questions for mothers and fathers separately. The questions have been combined to create a four-item index of the parent/child relationship quality for each biological parent with higher values indicating better relationship quality.

The time children spend with parents is believed to mediate the relationship between parental shift work and the parent/child relationship. This will be measured using two questions about time spent with parents as reported by the child.

Do you think your parents spend enough time with you?

How often do your parents miss the events or activities that are important to you?

The child was asked to report on each of these questions for mothers and fathers separately. The questions will be combined to create a two-item index of the child's time spent with mothers and fathers separately. Higher values indicate more time spent with the parent.

Shift work will be defined as regular day shift, regular evening shift, regular night shift or odd shifts (rotating or irregular shifts) as reported by the respondents. Mothers who are not employed or whose work schedule does not fall into one of these four categories will be excluded from the sample. They will be coded into three dichotomous variables, with regular day shift workers as the reference category.

Key control variables include total hours worked by the mother, which would likely affect available time to spend with the children; whether the mother is working a nonstandard shift voluntarily or involuntarily (data only available for those working odd hours—therefore not included in models), because we know that for many, shift work is a necessity that the job demands rather than a personal choice (Presser 1995); education, due to the fact that nonstandard shift workers are more likely to have lower levels of education (Presser and Cox 1997); income, as we might expect that income would facilitate more interaction between parents and children because they can afford to do more activities; and the age of the children in the household.

Results

Table 1 presents the mean, standard deviation, minimum and maximum for each variable in the analysis. On average, the respondents' children reported more closeness to mothers than fathers and reported spending more time with mothers than fathers. The father variables showed more variation on both quality and time. The average income is about \$30,000, and the average respondent/mother is

about 39 years old, has 13 years of education, and works about 41 and ½ hours per week. About 77% of the respondents report working a traditional day shift. Close to 6% report working the evening shift. Almost 5% work the night shift and approximately 13% work an odd or rotating shift.

In order to model the indirect relationship of shift work on the mother/child relationship through time spent with the child, two separate regressions were performed. Table 3 presents the regression of time spent with the mother on work shift, income, hours per week worked by the mother, age of the child, age of the mother and mother's education. The results support the hypothesis that when mothers work an evening shift, they spend less time with their children ($b = -.347$). Working a night shift or odd hours was not significantly different from working a day shift. Work hours had a significant negative effect on time spent with children ($b = -.008$) as would be expected, but the relationship is very weak. Older children were significantly more likely to spend time with their parents than younger children ($b = .004$). Mothers with a higher education were significantly more likely to spend time with their children ($b = .070$).

Also presented in table 3 is the regression of relationship quality with the mother on time spent with the mother, income, hours worked by the mother, age of the child, age of the mother and mother's education. As expected, time spent with the mother is a positive and significant predictor of relationship quality ($b = .678$). Older children reported significantly lower relationship quality with their mothers ($b = -.015$).

These results suggest that there is an indirect relationship between shift work and relationship quality through time spent with children, but only for those mothers who work the evening shift. This finding supports hypothesis 1, although the relationship does not appear to be a strong one.

Hypothesis 2 was not supported. When mothers worked a nonstandard shift, fathers in the sample did not spend more time with their children (table 4). However, time spent with fathers is a significant predictor of relationship quality between fathers and their children, as expected, explaining

about 18% of the variance in the dependent variable.

Conclusions

This study is somewhat limited by the measure of the child's self-reported time spent with parents. The index is constructed from only two items, which might limit its reliability. Although the NLSY79 does ask more questions about time spent with parents, these questions do not look at mothers and fathers separately. More detailed questions about time spent with individual parents might improve the index as a reliable measure.

This study also faces some of the same issues with causality as studies looking at shift work and marital relationships. In other words, does shift work cause problems in the relationship or do problems in the relationship push family members into nonstandard shifts? One might expect that parents would be less likely to use work to avoid a strained parent/child relationship than they would be to avoid a strained marital relationship, but this study cannot adequately answer this question. Because the NLSY79 only asks children about their relationship with their parents at ages 10-14, about half of the sample of children would not have been asked about their relationship with their parents at the 1998 wave of the survey because they would have been too young. This lack of data makes it difficult to compare the parent/child relationship before and after the mother started working the nonstandard shift, creating problems for any claims of causality.

Despite the proposed study's limitations, I believe that it attempts to address an important research question thus far ignored in the literature. How does maternal shift work affect the parent/child relationship? Does the type of nonstandard shift matter, or is any nonstandard shift detrimental children's perceived closeness to parents? Although the marital relationship has been studied within this context, it is unclear whether the relationship between parents and children is

affected similarly. Whether the parent/child relationship is more or less vulnerable to the effects of demanding work schedules is yet to be determined, however, the results of this study suggest that there is at least a modest indirect effect of shift work (evening shifts in particular) on the mother/child relationship.

References

- Crouter, A.C., Bumpass, M.F., Maguire, M.C., & McHale, S.M. (1999). Linking parents' work pressure and adolescents' well-being: Insights into dynamics in dual-earner families. *Developmental Psychology*, 35, 1453-1461.
- Hattery, A.J. (2001). Tag-team parenting: Costs and benefits of utilizing nonoverlapping shift work in families with young children. *Families in Society*, 419-462.
- Jackson, A.P., Brooks-Gunn, J., Chien-Chung, H., & Glassman, M. (2000). Single Mothers in Low-Wage Jobs: Financial Strain, Parenting, and Preschoolers' Outcomes. *Child Development*, 71:5, 1409-1423.
- Mellor, E.F. (1986). Shift work and flextime: How prevalent are they? *Monthly Labor Review*, 109, 14-21.
- Presser, H.B. (1995). Job, family and gender: Determinants of nonstandard work schedules among employed Americans in 1991. *Demography*, 32, 577-598.
- Presser, H.B. (2000). Nonstandard work schedules and marital instability. *Journal of Marriage and the Family*, 62, 93-110.
- Staines, G.L. & Pleck, J.H. (1983). *The impact of work schedules on the family*. Ann Arbor, MI: University of Michigan, Institute for Social Research.
- White, L. & Keith, B. (1990). The effect of shift work on the quality and stability of marital relations. *Journal of Marriage and the Family*, 52, 453-462.

	Mean	St. Dev.	Minimum	Maximum
Mother/Child Relationship	11.28	2.08	4	14
Father/Child Relationship	10.12	2.59	4	14
Time with Mother	4.38	0.87	2	6
Time with Father	3.86	1.09	2	6
Income	30014	30017	0	198128
Hours Worked	41.44	10.75	20	168
Day Shift (Reference Category)	0.766		0	1
Evening Shift	0.057	0.23	0	1
Night Shift	0.049	0.22	0	1
Odd Shift	0.128	0.33	0	1
Age	38.66	2.26	35	43
Education in years	13.05	2.41	0	20

	1	2	3	4	5	6	7	8	9	10	11
1 Mother/Child Relationship	1										
2 Father/Child Relationship	0.43	1									
3 Time with Mother	0.27	0.13	1								
4 Time with Father	0.07	0.43	0.32	1							
5 Income	-0.05	0.04	0.04	0.09	1						
6 Hours Worked	-0.06	0.02	-0.07	0	0.22	1					
7 Evening Shift	0.01	-0.06	-0.08	-0.07	-0.09	-0.07	1				
8 Night Shift	-0.01	-0.05	-0.02	0	-0.03	-0.01	-0.06	1			
9 Odd Shift	0.02	0.02	-0.01	0.01	-0.01	0.05	-0.09	-0.09	1		
10 Age	0.04	-0.01	0.05	0.04	0.02	0	0.01	-0.02	0	1	
11 Education in years	0.02	0.06	#####	0.18	#####	-0.02	-0.07	-0.07	#####	0.01	1

Bold indicates significance at p < or = .05

	Time with Mother				Relationship Quality					
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	b	s.e.
Evening Shift	-0.357	0.031	-0.347	0.14	0.07	0.327	0.309	0.317	0.218	0.332
Night Shift	-0.126	0.136	-0.021	0.148	-0.061	0.356	0.025	0.343	0.006	0.351
Odd Shift	-0.041	0.148	-0.069	0.087	0.118	0.213	0.169	0.206	0.149	0.21
Income			0	0					0	0
Hours Worked			-0.008	0.003					-0.008	0.008
Age of Child (Months)			0.004	0.002					-0.015	0.004
Age of Mother			-0.001	0.013					0.055	0.032
Education in Years			0.07	0.014					-0.029	0.035
Time with Mother							0.658	0.075	0.678	0.079
R-squared (Adjusted)	0.0046		0.039		-0.003		0.071		0.084	

Bold indicates significance at p< or = .05

	Time with Father		Relationship Quality	
	b	s.e.	b	s.e.
Evening Shift	-0.361	0.188	-0.525	0.416
Night Shift	-0.024	0.213	-0.769	0.457
Odd Shift	0.022	0.118	0.037	0.261
Time with Father			1.02	0.079
R-squared (Adjusted)	0.001		0.182	

Bold indicates significance at p< or = .05