

# **Paternity Leave, Family Dynamics, and Children's Behavior**

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## ***Research Questions***

Paternity leave policy was one of the important family-friendly policies that promote fathers' participation at home. Existing literature in western societies has shown that fathers' leave-taking (i.e. paternity leave, childcare leave, shared parental leave, etc.) and the duration of leave have positive influences on father involvement with childcare activities, sharing housework with partners, enhancing parental relationship, and strengthening father-child bonds. This study aims to understand the paternity leave policy on family dynamics and children's behavior in Asian contexts where paternity leave is significantly shorter and patriarchal ideology is prevalent. This study examines how paternity leave-taking is related to children's behavior and the extent to which family dynamics mediate this relationship in Singapore, where a 2-week paid paternity leave was initiated in 2017 and women remain the primary caregivers of children despite the phenomenal increase in their educational attainment and labor force participation.

**Keywords:** paternity leave, children's behavior problems, family dynamics, family cohesion

## ***Theoretical Framework***

We draw on several theories to guide our analysis – role theory, social capital theory, and family systems theory. Role theory suggests that a newborn child may bring challenges and increase parents' stress level when facing multiple roles simultaneously. Couples' marital relations may also suffer because of the role conflicts and tensions as well as their priority in providing childcare. Moreover, role traditionalization based on the economic theory further prioritizes men to do less unpaid work at home due to their higher bargaining power than women from the labor market. This further reinforces the traditional gender division of labor that leads to lower relationship satisfaction and greater relationship conflict. More egalitarian contribution to paid and unpaid work between spouses/partners are associated with greater sexual intimacy, relationship satisfaction, and relationship stability, which are influenced by structural factors, such as cultural frames, public policies, and institutional arrangements. Paternity leave policy could reduce role strains experienced by young parents, encourage more equal sharing of childcare and housework, thus promoting more relationship satisfaction and less relationship conflict reported by the mother.

Social capital theory suggests that paternity leave can enhance social capital for children by allowing fathers to become more involved in childcare and interactions with children, thus strengthening father-child attachment, and promoting children's well-being. Fathers' taking paternity leave especially the longer leave would strengthen fathers' identities and increase fathers' involvement in (1) paternal engagement (direct interaction with the child, in the form of caretaking, play, or leisure, which is often measured in parent-child time); (2)

accessibility/availability to the child (i.e. indirect attention to and supervision of children in close proximity); and (3) responsibility in arranging for resources, welfare, and making decisions for the child (Lamb, 2010; Lamb et al., 1985). A higher level of family social capital also refers to closer parent-child relations, positive parenting behavior, and closer monitoring of children's activities, which tend to promote children's cognitive-social development, educational aspirations, and social adjustments (Coleman, 1988; 1990).

According to the family systems theory, a child's mother plays a mediating role between father involvement and the child's outcomes. Fathers' role as a source of emotional and instrumental support to mothers enhanced women's happiness, quality of the marital relationship, mother-child relationship, which can facilitate positive adjustment by children. In this study, fathers' paternity leave-taking, especially the longer leave, could enhance family cohesion by reducing family conflict, maternal depression, and parenting aggravation, while increasing marital satisfaction, which, in turn, facilitating children's well-being indirectly.

### ***Hypotheses***

Based on the theories reviewed above, we hypothesize that taking paternity leave and the length of paternity leave will be positively associated with family dynamics, measured by mothers' report of marital satisfaction, father-child relationship and negatively related to family conflict, maternal depression, and maternal parenting aggravation. Further, paternity leave and the length of paternity leave will be negatively associated with children's behavior problems. Finally, family dynamics will mediate the effect of length of paternity leave on children's behavior problems.

### ***Data***

This study used the data collected from the Singapore Longitudinal Early Development Study (SG LEADS), funded by the Ministry of Education and conducted in 2018/2019 by the Centre for Family and Population Research at the National University of Singapore (Yeung et al., 2020). The first wave of SG LEADS includes a nationally representative sample of 5,017 Singaporean children (citizens and permanent residents) under the age of 7 and their primary caregivers (PCGs) (about 95% were mothers) in 3,481 households. This study only focuses on intact families where the PCGs are mothers. As the paid paternity leave (1-week leave) in Singapore was first initiated on 1 May 2013, we further limit our sample to children who were born on or after 1 May 2013. The final sample size for this study was 3,897 children in 2,657 households living with either biological or adoptive parents.

### ***Methods***

#### **Measurements**

*The dependent variables are children's behavior problems measured by the Behavior Problems Index (BPI) for children aged 3-7 years old (Peterson & Zill, 1986). It was categorized by externalizing and internalizing behavioral problems (EBPI & IBPI) based on exploratory factor analysis. Each index consists of 13 items with high reliability and validity.*

*Independent variable is the length of paternity leave (0= "did not take leave", 1= "1-week*

leave”, “2=2 and more weeks’ leave)

*Mediators* are family dynamics, including mothers’ report of family conflict, marital satisfaction, father-child closeness, maternal depression, and parenting aggravation.

*Control variables include* parents’ age, educational level, and employment status; fathers’ occupation and race; the total household income in the past year; marriage duration; child’s age, race, and gender; the number of children below 18, and the number of adults aged over 65 living in the household.

*Analytic strategy*

We conduct multinomial logistic regressions and multivariate OLS regressions to identify factors that affect the length of the paternity leave and how paternity leave-taking influence family dynamics and children’s behavior problems. Finally, the Karlson/Holm/Breen (KHB) method is used to test whether and how the 5 family dynamic indicators mediate the effect of length of paternity leave on children’s behavior problems. Propensity score matching (PSM) is also conducted as sensitivity analyses, and the results are consistent with the OLS regressions. Only the multivariate models are shown in this abstract.

**Results**

Table 1. OLS Estimates of the Length of Paternity Leave on Family Dynamics

	Model 1	Model 2	Model 3	Model 4	Model 5
Variables	Family conflict	Marital satisfaction	Father-child closeness	Maternal depression	Parenting aggravation
Length of paternity leave (ref.=did not take leave)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
1-week leave	-0.00 (0.03)	-0.02 (0.06)	0.02 (0.03)	0.06 (0.04)	0.23*** (0.07)
>=2 weeks’ leave	-0.11*** (0.03)	0.26*** (0.05)	0.13*** (0.03)	-0.06 (0.03)	-0.23*** (0.06)
Control variables	Yes	Yes	Yes	Yes	Yes
Constant	3.02*** (0.16)	3.79*** (0.36)	3.34*** (0.15)	2.86*** (0.23)	4.71*** (0.42)
Observations	3,790	3,751	3,790	3,790	3,790
Adjusted R-squared	0.11	0.07	0.04	0.09	0.09

Notes: All values are weighted at child level. Robust and cluster standard errors in parentheses. Control variables include fathers’ age, race, education, employment status, occupation; mothers’ age, education, gender ideology, employment status, whether parents are from different racial groups; child’s age, gender; marriage duration, number of children (<18) and older adults (>65) living in the household, household income (logged).

\*p< .05. \*\*p< .01. \*\*\*p< .001.

Table 2. OLS Estimates of the Length of Paternity Leave on a Child's Externalizing and Internalizing Behavior Problems

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Variables	IBPI	IBPI	IBPI	EBPI	EBPI	EBPI
Length of paternity leave (ref.=did not take leave)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
1-week leave	-0.06*** (0.02)	-0.04** (0.02)	-0.04** (0.02)	-0.02 (0.02)	-0.00 (0.02)	-0.01 (0.02)
>=2 weeks' leave	-0.07*** (0.02)	-0.05** (0.02)	-0.02 (0.02)	-0.09*** (0.03)	-0.07** (0.02)	0.00 (0.02)
Family conflict			0.03* (0.02)			0.14*** (0.02)
Marital satisfaction			-0.04*** (0.01)			-0.04*** (0.01)
Father-child closeness			-0.03 (0.02)			-0.02 (0.02)
Maternal depression			0.05*** (0.01)			0.07*** (0.02)
Parenting aggravation			0.01 (0.01)			0.07*** (0.01)
Control variables	No	Yes	Yes	No	Yes	Yes
Constant	1.18*** (0.01)	1.69*** (0.11)	1.63*** (0.14)	1.45*** (0.02)	2.29*** (0.16)	1.59*** (0.18)
Adjusted R-squared	0.01	0.06	0.15	0.01	0.08	0.26

Note: N=1,936. All values are weighted at child level. Robust and cluster standard errors in parentheses. Control variables include fathers' age, education, employment status, occupation; mothers' age, education, gender ideology, employment status, whether parents are from different racial groups; child's age, gender, race; marriage duration, number of children (<18) and older adults (>65) living in the household, household income (logged).

\*p< .05. \*\*p< .01. \*\*\*p< .001.

Table 3. Mediation Analyses of the Length of Paternity Leave and Child's Externalizing and Internalizing Behavior Problems using the KHB method

Variables	Child's EBPI			Child's IBPI		
	b	SE	Mediation Effect (%)	b	SE	Mediation Effect (%)
<b>(a) One week of leave</b>						
Total effect	-0.01	0.02	—	-0.04**	0.01	—
Direct effect	-0.00	0.02	—	-0.04*	0.01	—
Indirect effect via:	-0.00	0.02	32.53	-0.01	0.01	11.57
Family conflict	-0.00	0.00	23.18	-0.00	0.00	0.82
Marital satisfaction	-0.00	0.00	61.23	-0.00	0.00	8.88
Father-child closeness	-0.00	0.00	8.28	-0.00	0.00	2.06
Maternal depression	-0.00	0.00	4.02	-0.00	0.00	0.46
Parenting aggravation	0.00	0.00	-64.17	0.00	0.00	-0.65
<b>(b) Two and more weeks of leave</b>						
Total effect	-0.09***	0.02	—	-0.06***	0.01	—
Direct effect	-0.01	0.02	—	-0.03	0.02	—
Indirect effect via:	-0.09***	0.02	94.32	-0.03***	0.01	55.02
Family conflict	-0.02	0.01	24.21	-0.01	0.00	9.25
Marital satisfaction	-0.01	0.00	12.47	-0.01	0.00	19.61
Father-child closeness	-0.00	0.00	2.86	-0.00	0.00	7.71
Maternal depression	-0.01	0.00	11.02	-0.01	0.00	13.67
Parenting aggravation	-0.04	0.01	43.76	-0.00	0.00	4.78

Note: N =1,682. All values are weighted at child level. These two mediation models controlled for all the sociodemographic variables, including parents' working status, education, race differences, and age; dad's occupations; mom's gender ideology; child's race, age, gender; marriage duration; household income (logged); number of children (<18) and older adults (>65) living in the household.

\*p< .05. \*\*p< .01. \*\*\*p< .001.

Table 1 shows that taking paternity leave, especially the 2 weeks or longer leave significantly reduced family conflict and mothers' parenting aggravation, while significantly increased marital satisfaction and father-child closeness. There is no significant association between length of paternity leave and maternal depression. Taking 1-week and 2 weeks or more paternity leave significantly reduced children's behavior problems, after controlling for family- and individual-level sociodemographic characteristics (Table 2). However, these effects

became non-significant when family dynamic variables were added to the model. Mediation analyses using KHB method (Table 3) showed that the family dynamic variables examined in the analysis fully mediated the influence of taking 2 weeks or longer paternity leave on children's EBPI and IBPI, with the mediation effects ranging from about 55%-94%. Parenting aggravation (43.76%) and marital satisfaction (19.61%) contributed the highest percentages of indirect effect of 2 weeks or longer paternity leave-taking on children's EBPI and IBPI respectively.