Parental Childcare Support, Sibship Status and Mothers' Second-child Plans in Urban China

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Abstract Both the intergenerational transmission of fertility and the influence of parental support on adult children's childbearing behavior have long been recognized in the literature. Nevertheless, the interrelation between these two mechanisms and its impacts on fertility decisions remain less studied. Using data collected in the era of the two-child policy in urban China, this study analyzes the impacts of parental childcare provision on mothers' plans for a second child. The results show that, although parental services with raising the first child increase the probability of planning for a second child, husbands' sibship status moderates this intergenerational influence. Further analysis suggests that the primary childcare providers are related to couples' sibship status. Also, the structure of wives' families of origin is associated with the possibility of getting childcare support from their husbands' parents. This suggests that extended families might decide about the main childcare provider collectively in contemporary China.

INTRODUCTION

There is a large body of literature portraying the intergenerational effect of childbearing behavior, including number of children and timing of giving birth (Murphy, 1999; Murphy & Wang, 2001). This effect has two main aspects: the intergenerational transmission of fertility and parental supports in raising children. Genetic predisposition for having children and socialization have served as the main explanations for the intergenerational fertility continuities (Axinn & Thornton, 1993; Bernardi, 2003; Bras, Bavel, & Mandemakers, 2013; Kohler, Rodgers, & Christensen, 1999). Sociological literature, however, focuses more on intergenerational supports (e.g. financial transfers and free grandparenting) deemed a source of social capital that shapes adult children's childbearing behaviors (Boca, 2002; Bühler & Philipov, 2005).

The interrelation between having a big family of origin and the availability of childcare assistance provided by parents, and its influence on fertility decisions remain less studied. As argued by Aassve et al. (2012), the childcare services that parents can offer to each adult child depend on their own characteristics (e.g. age and health) and also whether they need to assist other adult children. This competition among adult children (i.e. siblings) might be even more salient when public childcare services are less prevalent. In contemporary China, where public childcare services are limited, parents or in-laws of women are important childcare providers (Chen, Liu, & Mair, 2011; Chen, Short, & Entwisle, 2000). Nevertheless, the impact of parental childcare assistance on women's fertility decisions has received less academic interest in Chinese studies. This is because the stringently enforced birth control resulted in little variation in family size in the past decades (Gu, Wang, Guo, & Zhang, 2007), and thus the influence of various characteristics of family on family size was less likely to be observed.

In 2015, the universal two-child policy allowed all couples in mainland China to have a second child. The conflict between paid work and childcare responsibility faced by mothers is one of the most important concerns for having another child (Attané, 2016). Thus, parental childcare assistance alleviating this conflict becomes one of the main determinants in family's plan for a second child. In addition, the size of the family of origin might influence young couples' ability to get parental childcare support. That is, because all couples were able to choose to have a second birth at the same time point, siblings may have competed directly for free parental childcare assistance. Thus, the impacts of parental childcare assistance on a couple's childbearing plans might be moderated by the structure of extended family, i.e. whether the couple has siblings.

Using survey data collected in 2016 in twelve cities across six provinces, this study examined the intergenerational effects on urban Chinese women's second-child plans in the era of universal two-child policy. Specifically, we suggest that siblings become competitors for parental childcare assistance, and thus having siblings might act as a negative moderator of the relationship between parental childcare assistance and mothers' second-child plans. By examining the determinants of planning for a second child based on data collected after the policy change, we provide insights into factors influencing future fertility trends in China. This study also complements the large body of research on the intergenerational effects of fertility in

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the West and contributes to the literature on contexts where fertility outcomes will or will not be transmitted from parents to children.

We begin by reviewing previous literature about the influence of parental childcare assistance on adult children's fertility behaviors. Then, we sketch the Chinese contexts and introduce our hypotheses. Specifically, we discuss how parental childcare support, parents' past fertility behaviors, and their interrelation might affect adult children's fertility plans. Next, we describe our data, measures and analytical approach. We then present the results of our models testing the proposed hypotheses. In the last section, we discuss our findings and their societal relevance.

LITERATURE REVIEW

Parental Supports in Childcare

The importance of intergenerational supports in childcare has long been observed. When public services for childcare are inadequate, parental free childcare assistance serves as an important source of social capital for couples (Boca, 2002; Bühler & Philipov, 2005; Tanskanen & Rotkirch, 2014) and can significantly reduce women's opportunity costs of reproduction. This sharing of childrearing costs thus enables mothers to better balance paid work and family life (Hoppmann & Klumb, 2010), encouraging their fertility intentions.

Recent empirical studies on parental childcare are extensive, especially in the case of European countries, but the conclusion about its impact on adult couples' childbearing decisions is mixed. In the Netherlands, childcare support from parents is an important factor in people's fertility decisions, and it increases the probability of having children (Kaptijn, Thomese, Tilburg, & Liefbroer, 2010). One study using data from Bulgaria, as a case from Central and Eastern Europe, documented the effects of parents' support or help on fertility intentions for the first or the second child (Bühler & Philipov, 2005). Using data from the Generations and Gender Surveys in four European countries with different levels of wealth, public services for child care, and fertility, Tanskanen and Rotkirch (2014) found that childcare help from a maternal father was correlated with a woman's intention to have a second or third child. Nevertheless, parental childcare help was found to be negatively associated with women's intentions in Lithuania. Waynforth (2012) studied longitudinal data for the 1970 British birth cohort and argued that it was the physical presence of parents rather than parents' childcare help that increased the chance of having a child.

In East Asian societies, where patriarchal and patrilineal norms are prevalent under Confucian doctrine, literature on related topics is rather limited. In Taiwan, the birth spacing between the first and the second birth was shorter when coresiding parents-in-laws act as free childcare providers (Chi & Hsin, 1996). Data from South Korea suggested that women with childcare assistance from coresiding parents or in-laws had 2.7 times odds of having a second child compared to women not living with parents or in-laws and not receiving childcare support from them (Yoon, 2017).

Chinese Contexts

In mainland China, parental supports have become even more important in alleviating the work-family conflicts faced by mothers in recent years, and thus affect family's childbearing decisions. This strong intergenerational influence lies in the profound social changes that China has experienced, changing from a socialist economy to a market-oriented economy, during the last several decades.

In the socialist era, the *danwei* system (work-unit of the State-owned enterprise) helped organize social production and took over the Chinese family patriarch's roles. In the meantime, similar to socialist countries in the former Soviet Bloc, the Chinese government encouraged women to join social production (Croll, 1983). Publicly subsidized facilities, including dining halls and childcare centers, were built to support women's work outside the household. During the transition to marketization, the *danwei* system gradually collapsed, but its publicly subsidized services have not been substituted by a well-established welfare system to support families and individuals (Ji, Wu, Sun, & He, 2017). Because the main burden of childrearing was shifted back to families, especially to women, seeking childcare assistance from parents has become one of the solutions to the conflicts between paid work and childrearing responsibilities for mothers. Using the data from a province experiencing lowest-low fertility in mainland China, Ji et al. (2015) found that potential (or actual) childcare support from parents was related to higher fertility intentions of women.

Wang and Yang (2017) also found that in Beijing, compared to couples who took care of the first children by themselves, those who received temporary parental assistance in caring for young children had 20% higher intention for a second child in 2015. Thus, we propose

Hypothesis I: a mother with childcare support from parents or in-laws is more likely to have a plan for a second child.

Other than providing free childcare services, parents' behavior might also affect adult children's childbearing decision through other mechanisms. According to the broad literature on intergenerational transmission of fertility, parents might transmit values, preferences and norms to their children in children's early socialization (Amato, 1996; Axinn & Thornton, 1996; Bandura, 1977), and children might view their parents as role models and imitate their behaviors (Bandura, 2006). Even during a period of profound social changes, there is still a clear intergenerational transmission of demographic trajectories (Liefbroer & Elzinga, 2012).

Bernardi (2003) further suggested that the salience of parents in controlling resources and emotional bonds might exert powerful effects on couples' fertility decisions. With rising living expenses and housing prices, Chinese young generations are more dependent on their parents in recent years than in the socialist times (Yan, 2013). As Ji (2017) wrote, "Family members (thus) have to stick together as a safety net, to some degree through their obligations towards each other as defined by Confucian tradition." Consequently, parental preferences are more likely to be transmitted to adult children and thus influence their childbearing decisions. As found by Ji et al. (2015), the sizes of husbands' families of origin (having siblings) positively affected married women's fertility intentions in China. Another empirical study also suggested that the influence of living together with parents on adult children's fertility intention for a second child was also greater than receiving parental childcare support in Beijing (Wang & Yang, 2017). This might result from the pressure from the coresident parents, because young couples cannot afford to move out and thus have to live together with their parents to lower the housing expenses.

Based on the general literature about intergenerational transmission of childbearing behavior and closeness of the bond between Chinese parents and their adult children, we hypothesize a positive association between size of the family of origin and women's intentions to have a second child in the era of universal two-child policy:

Hypothesis II: a mother who has siblings is more likely to plan for a second child.

At the same time, parents' past fertility behavior might affect their ability to provide childcare support to each of their adult children. That is, if a couple has siblings, their parents might have to help take care of their siblings' children. Consequently, the childcare assistance from parents might be shared and thus limited. Aassve et al. (2012) found that women's probability of having a child was lower if their parents were looking after siblings' young children, because their parents had time and energy constraints for taking care of all grandchildren. In the Netherlands, for childless adults, their parents' frequent care for their siblings' children also negatively, although not significant, affected the likelihood of entering into parenthood (Kaptijn et al., 2010).

The onset of China's universal two-child policy, which can be seen as a shock in Chinese families' life course trajectories, allowed all couples to have a second child at the same time point. Thus, siblings at childbearing age, regardless of age difference among them, become potential competitors for their parents' childcare assistance. Based on these realities, we further propose a set of testable hypotheses:

Hypothesis IIIa: the influence of childcare support from parents on a woman's second-child plan will be smaller if she has siblings.

Hypothesis IIIb: the influence of childcare support from parents-in-law on a woman's second-child plan will be smaller if her husband has siblings.

DATA AND METHODS

Data

This study used survey data from the "Fertility Decision-Making Processes in Chinese Families" project, which was conducted by the Center for Population and Development Studies at the Renmin University of China in 2016. Twelve cities in six provinces (Zhejiang, Sichuan, Shandong, Guangdong, Liaoning, and Hubei) were sampled in this survey, covering diverse geographical locations with different levels of economic development, fertility, sex ratio at birth, and population size. In each city, about 500 households were sampled using a multistage probability sampling design. First, three counties were randomly selected from each city. Second, two subdistricts (*jiedao*) in urban areas or townships (*xiangzhen*) in rural areas were sampled from each county. Third, from subdistricts or townships, four to ten communities (*juweihui*) or administrative villages (*cunweihui*) were selected. Finally, eight to ten households were sampled from each community or administrative village. Because urban people are the primary target group of the universal two-child policy, households living in urban areas were oversampled in the sampling process. The original sample size was 6,013, with 86% coming from the urban area.

  Because we focused on the target group of the universal two-child policy, we limited our sample to Han (the main ethnic group in mainland China) women aged 20 to 45 who lived in the urban area (N=4,820). To examine the probability of having plans for a second child, we further limited the analytical sample to those who had one child (N=3,169). Because of our focus on intergenerational influence, we only kept women who had at least one healthy parent or parent-in-law (N=2874) and excluded those whose first child was primarily taken care of by someone other than the couple, their parents or in-laws (N=2,785). Finally, we dropped observations with missing values in variables (less than 10%) in our analysis. The final sample size was 2511.

Measures

The dependent variable in this study was whether a mother planned to have a second child. It was created from responses to the following question: "How many children are you planning to have?" A woman who had a plan for two or more children was considered as having a plan for a second child. We used fertility plan rather than fertility intention in this study because we believe fertility plan is a better proxy for individual fertility behavior in the near future. Although some early studies proposed the fertility intentions as the most proximate proxy of actual fertility behaviors (Ajzen, 1985, 1991; Barber, 2001; Bongaarts, 1992), Bongaarts (2001) argued that there are multiple mediating factors resulting in the gap between fertility intentions and fertility behaviors. Compared with fertility intentions, the question about fertility plans asked respondents to think about a specific agenda for having another child when answering the question. Thus, we adopted this measure in the analyses. As shown in Table 1, about one third of the mothers in our analytical sample had planned for a second child.

<div align="center">TABLE 1 ABOUT HERE</div>

  The main variables of interest were intergenerational childcare support and having siblings. We first described our measure of parental childcare assistance. In our analysis, we took the variable of primary childcare providers for the first child under age 3 as the measure for intergenerational childcare support, because the childcare demand is the most intensive when a child is very young (Du & Dong, 2013). This variable had three categories: the young couple (reference group), wife's parents, and husband's parents (i.e. wife's parents-in-law). About 60% of women reported that the couples were the primary childcare providers for their first children when children were under age 3. About 13% and 27% of women reported that their parents and parents-in-law were the main childcare providers for the first children under age 3, respectively.

  Other studies have examined the relationship between women's childbearing behaviors and living arrangement with parents to estimate the intergenerational effects (García-Morán & Kuehn, 2017; Li & Jiang, 2017). Nevertheless, the estimates might be mixed with the influence of women's exposure to parents or in-laws' traditional ideals and expectation towards large family size during the period of co-residence (Chi & Hsin, 1996). Also, parents or in-laws might live together with the young couples when caring for children and go back to stay in their own houses for other periods (Wang & Yang, 2017). Thus, as explained

later, instead of taking living arrangement as a proxy for childcare assistance, we controlled for the living arrangement with parents or in-laws in our statistical models.

The other key variable was the size of the family of origin. In this study, we distinguished the influence of a woman's sibship status from that of her husband's sibship status by using two sets of dummy variables: whether the wife had siblings and whether her husband had siblings. Approximately, 63% of women and 61% of their husbands had siblings.

We also controlled for respondents' characteristics, including age, educational attainment, age at first birth, employment status, and *hukou* status. Age, measured in years, was included because older women are less likely to have second-child plans, due to biological constraints. Educational attainment is usually regarded as a negative factor related to fertility intention (Axinn & Barber, 2001). We measured education through a set of dummy variables: primary school or less, middle school (reference group), high school or secondary school, and college or above. Because previous studies suggested that women's younger age at first birth is associated with rapid subsequent fertility (Bumpass, Rindfuss, & Jamosik, 1978), we used a continuous variable to control for women's age at first birth. We also controlled for mothers' employment status in the models, because it was an indicator of women's empowerment, negatively associated with fertility intention (Jin, Song, & Chen, 2016; Upadhyay et al., 2014). This variable had two categories: not employed as the reference group and employed (including wage earners, the self-employed, and farmers). In our sample, almost 90% of women were employed.

Women's *hukou* status was also included in our models. *Hukou* status is the status of each person registered in the Household Registration System in mainland China, mainly non-agriculture and agriculture. Recently, a third category—resident *hukou*—has been introduced into the system during the *hukou* system reform. Thus, this variable had three categories: agricultural *hukou* (reference group), non-agricultural *hukou* and resident *hukou*. Because *hukou* status is closely related to social benefits that can be received by individuals, and previous fertility policies were designed based on different *hukou* types (Gu et al., 2007), we also included this variable in our analyses.

Several household characteristics were also controlled for, including the gender of the first child, annual household income, living arrangement with parents or in-laws, and age of the youngest healthy parents or in-laws (logged). We included the gender of the first child with having a girl as the reference group, because son preference is still prevalent in mainland China (Yeung & Hu, 2013) and the gender of the first child is closely related to the second-child intention (Jin, Song, & Chen, 2016). Household income is an indicator of the financial capacity to support a second birth (Bao, Chen, & Zheng, 2017). Because the distribution of household income was highly skewed, we took the logarithm of annual household income.

As explained, we included the living arrangement with parents or in-laws to control for intergenerational effects other than providing childcare support on women's childbearing plans (Bernardi, 2003). Furthermore, recent studies using longitudinal data suggested that, compared with not living with parents, Chinese women's motherhood penalty was nonexistent for women living with their own parents and largest for those living with parents-in-law (Yu & Xie, 2018). Thus, in the models, we distinguished living with parents from living with parents-in-law. About 15% of women lived with their parents, whereas around 30% lived with their parents-in-law. Because both age and the health status of parents and in-laws reflect their abilities to provide childcare support, we used the age of the youngest healthy parents and parents-in-law (health status evaluated as average level or above), measured in years, to capture their capacity to take care of children.

Finally, we controlled for the heterogeneity across different provinces by including a set of dummy variables of provinces with Zhejiang as the reference category.

Analytical Approach

In this study, we adopted logistic regression and multinomial logistic regression models with robust standard errors clustering at provincial level. To test Hypothesis I, we used logistic regression models with the second-child plan as the dependent variable. We first examined the effects of childcare support from parents and in-laws, controlling for other variables. Then, we included the variables of sibship status of wives and their husbands to test the second hypothesis. Finally, to test the last set of hypotheses, we examined the interaction effects between having siblings and parental childcare support. The equation for the logistic model is shown below.

$$Log\left(\frac{P(y=1)}{1-P(y=1)}\right) = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_k x_{ik}, for\ i = 1\ldots n$$

$P(y=1)$ is the probability of having a second-child plan. β_0 is the intercept from the linear regression equation. $\beta_1 \ldots \beta_k$ are coefficients for independent and control variables.

To further investigate how having siblings influenced the childcare support from parents or in-laws, we used multinomial logistic regression to test the relationship between the main childcare providers for the first child under age 3 and sibship status of the young couples. In this multinomial regression model, the young couples as the primary childcare providers were treated as the reference category ($z=1$):

$$Log\left(\frac{P(z=2)}{P(z=1)}\right) = \beta_{00} + \beta_{10} x_{i1} + \beta_{20} x_{i2} + \cdots + \beta_{k0} x_{ik}, for\ i = 1\ldots n$$

$$Log\left(\frac{P(z=3)}{P(z=1)}\right) = \beta_{01} + \beta_{11} x_{i1} + \beta_{21} x_{i2} + \cdots + \beta_{k1} x_{ik}, for\ i = 1\ldots n$$

$P(z=2)$ is the probability of having wife's parents as the primary childcare providers for the first child. $P(z=3)$ is the probability of having husband's parents as the primary childcare providers for the first child.

RESULTS

Intergenerational Influence on a Mother's Second-child Plan

We first explored the association between intergenerational childcare support and women's second-child plan. Figure 1 showed the distributions of second-child plan by primary childcare providers for the first child under age 3. As depicted, the percentage of having a second-child plan was higher for mothers who got childcare support from either parents or in-laws (approximately 38%) than that of those who did not receive any intergenerational childcare assistance (less than 29%).

FIGURE 1 ABOUT HERE

TABLE 2 ABOUT HERE

We then adopted logistic regression with robust standard errors to test the hypotheses. The results were shown in Table 2. With all the other control variables included, the first model examined the impacts of the primary childcare providers for the first child when the first child was under age 3 on a mother's second-child plan. The results suggested that this effect was statistically significant. Specifically, compared to the couple who took care of the first child, the odds of having a plan for a second child were 63% (exp(0.49)-1) higher for those having wife's parents as the primary childcare providers. The odds were 42% higher when the mother's parents-in-law were the primary childcare providers. Thus, the first hypothesis that a mother who can get intergenerational childcare support is more likely to have a second child plan was supported.

To test the second hypothesis, we then added the variables of sibship status of both wives and husbands in Model 2. No significant effect was found for the sibship status of either wife or husband. To investigate the moderating effect of sibship status in the influence of parental childcare support on the second-child plan, we further included interaction terms between the variables of sibship status and primary childcare providers for the first child in the third model. The results showed that the estimates of the main effects of sibship status were not significant, whereas the main influence of parental childcare services remained significant. Further, the interaction terms between wife's sibship status and childcare providers were also not statistically significant. However, husband's sibship status moderated the impacts of husband's parents as the main childcare providers for the first child on having a second child plan. Specifically, controlling for the other variables, when a woman's husband did not have siblings, husband's parents' childcare support could significantly increase the odds of having a second-child plan by 1.65 times. Nevertheless, when husband had siblings, childcare support from husband's parents only increased the odds of having a second-child plan by 1.07 times (exp(0.50-0.43)).

Additionally, as shown in all three models, a mother was less likely to have a second-child plan if the first child was a boy. This is consistent with the prevalent son preference in mainland China and its impacts on Chinese fertility found by previous studies (Poston Jr, 2002). Also, no significant association was found between the living arrangement with parents or in-laws and a mother's second-child plan.

Overall, we did not find enough evidence to support the second hypothesis of the intergenerational transmission of fertility. For the tests on the moderating effect of sibship status, only Hypothesis IIIb—the influence of childcare support from parents-in-law on a woman's second-child plan will be smaller if her husband has siblings—was supported, whereas the moderating effect of wife's sibship status was not significant.

Association between Sibship Status and Primary Childcare Providers

To further examine how the sibship status of the couples would influence the childcare support that they could get from their parents, we compared the percentage distributions of the primary childcare providers for the first child by the sibship status of wife and husband. We considered four scenarios in this comparison: both wife and husband had siblings, neither wife nor husband had siblings, only husband had siblings, and only wife had siblings.

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As shown in Figure 2, there were clear differences in primary childcare providers for the first child under age 3 among different scenarios. Specifically, the percentage of taking care of the first child by the couple was highest for those both partners had siblings, whereas it was lowest when neither of them had siblings. Less than 18% of the mothers who did not have siblings but whose husbands had siblings got childcare assistance from husbands' parents, whereas the percentage was more than 34% for mothers who had siblings but whose husbands did not have siblings. Similarly, the chance of getting childcare services from wives' parents was lowest for wives who had siblings but their husbands did not, whereas the percentage was highest for those who did not have siblings but their husbands had siblings.

We then conducted multinomial logistic regressions with the primary childcare providers as the dependent variable. The reference group in this dependent variable was a mother who reported that the young couple (i.e. she and her husband) were the primary childcare providers for the first child when the child was very young.

TABLE 3 ABOUT HERE

As shown by the results in Table 3, the sibship status of the young couple significantly determined the primary childcare providers for the first child. Controlling for other variables, the relative odds of having wife's parents as the main childcare providers than taking care of the first child by the couple were 51% (1-exp(-0.71)) lower for a wife with siblings than for that who did not have siblings. Compared to the couple that the husband came from one-child family, the relative odds of having husband's parents as the main childcare providers than raising the child by the couple were 30% lower for the husband who had siblings. Also, if the wife had siblings, the relative odds of having her husband's parents take care of the first child were 27% higher than the reference group. This suggested that the decision about primary childcare providers was made collectively in extended families, because the size of wife's family of origin was also associated with probability of having her husband's parents as the primary childcare providers.

The results also suggested that a mother's economic activity was positively associated with the relative odds of getting intergenerational childcare assistance. This was expected, because previous studies indicated that parents or in-laws are an important source of social capital to reduce women's family-work conflicts. Besides, the living arrangement was found to be associated with the availability of intergenerational childcare support. That is, the relative odds of getting childcare help from wife's parents were higher if living with wife's parents but lower if living with husband's parents. The counterpart also held true for husband.

To sum up, the analyses further confirmed our main arguments that having siblings reduces the chance of receiving childcare support from parents.

CONCLUSIONS AND DISCUSSION

The correlation between number of siblings and family size of procreation has long been recognized (Johnson & Stokes, 1976). This correlation has been substantially demonstrated over time in developed societies during the twentieth century (Murphy, 1999, 2013; Murphy & Knudsen, 2002). However, research

in non-Western contexts is limited. Capitalizing on recently collected survey data, this study evaluated the intergenerational influence on a mother's plan for a second child in the era of universal two-child policy in urban China, where public childcare services are limited but patriarchal norms are prevalent.

Through multivariate analyses, we found that parental childcare assistance for the first child was an important contributor to a mother's plan for a second child, but parents' own fertility behavior (i.e. the couple's sibship status) did not exert strong impacts. The results also showed that the influence of husband's parents being the main childcare providers for the first child was significantly smaller if the husband had siblings. Further analysis suggested that, even for the first child, sibship status strongly affected the availability of parental childcare assistance. We also found a strong association between wife's sibship status and husband's parental childcare services. This suggested that the decision about childcare providers might be a collective one within extended families, including the husband and wife, husband's family of origin, and wife's family of origin.

Parents' childcare support has long been expected per patriarchal norms in East Asia. With the relatively high female labor force participation in contemporary China, free intergenerational childcare assistance helps families reduce the opportunity costs of raising children and thus encourages young couples to have more children. However, our analysis suggested this intergenerational effect on Chinese fertility may not be universal. This is because the universal two-child policy mainly targeted couples who did not come from one-child families (i.e. who have siblings), whereas siblings are competitors for the scarce resources of parental supports. Consequently, the sibship status of the target group of people will moderate the positive impacts of intergenerational childcare support on fertility. To avoid the continuous decrease of Chinese fertility in the future, more high-quality public childcare services might be needed.

As argued by Attané (2016), Chinese low fertility is not an issue of policy *per se*, but one of economic and family tradeoff. According to recent studies, women's dual burden and disadvantages have become more prominent in the era of China's universal two-child policy (Qian & Jin, 2018; Zhao, 2016). The reaction of the labor market also puts women in an unfavourable position, because employers are more reluctant to hire women, avoiding longer maternity leaves (The Economist, 2018). According to the gender equity theory of fertility change, the conflict between labor force activities and women's traditional roles within the household reflects the first stage of the "gender revolution" that women have pioneered toward gender egalitarianism, although men have not joined women in the private sphere of the family. The low fertility is the reaction of women's perception of unfairness and a reflection of the incompleteness of the gender revolution (Goldscheider, Bernhardt, & Lappegård, 2015; McDonald, 2000). Thus, the promotion of gender egalitarianism might be one of the main solutions to achieve the desired and stable fertility trend in China in the long run.

Estimates of our statistical models might be suffered from one plausible selection problem. That is, in mainland China, before the 2015 policy relaxation, the birth control policy was of substantial local variations and exceptions for a second child (Gu et al., 2007). Currently, women at prime age of childbearing were born during the period of strict birth control, which started around 1980 and ended in 2015. Because, before the early 1990s, most provinces allowed the couple to have a second child if both partners came from one-child families (i.e. having no siblings), those who tend to have another child might have already had a second child before the 2015 policy change. The recent transition to the universal two-child policy mainly affects those who did not come from one-child families (i.e. having siblings). Thus, we are more likely to see a positive relationship between having siblings and higher fertility intentions. However, because the estimates of the coefficients of sibship variables were not statistically significant in our analyses, our results were conservative. Thus, in contrast with previous studies in the Western societies, we did not observe a significant intergenerational transmission of fertility in our sample. This might be due to Chinese government's long-term promotion of "small family" model. Because families have gradually shifted from resisting to embracing the "small family" ideal (Merli & Smith, 2002; Zhang, 2007), young couples' fertility intention is less related to their parental preference about family sizes. In addition, the growth of childrearing costs in recent years might also mute the intergenerational transmission of fertility in urban China.

Despite the limitation mentioned, this study contributes to both the literature on intergenerational transmission of fertility and parental roles in shaping young adults' childbearing behavior. Specifically, by studying the correlation between women's childbearing plans and size of the family of origin in a society with profound socioeconomic changes and stringent fertility policies, this research complements the

literature of intergenerational reproductive continuities in the Western societies. We also extend previous research by examining the influence of parental childcare support on women's fertility plan in a society with prevalent patriarchal norms and limited public childcare services, and demonstrating how this effect varies by the structure of extended families.

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Table 1. Descriptive statistics

Variables	Mean (SD) or %
Dependent variable and main independent variables	
Wife's second child plan	
Having a plan for a second child	32.42
Having no plan for a second child	67.58
Primary childcare providers for the first child under age 3	
Young couple (wife and husband)	60.37
Wife's parents	12.74
Husband's parents	26.88
Wife's sibship status	
Wife had siblings	63.44
Wife did not have siblings	36.56
Husband's sibship status	
Husband had siblings	61.13
Husband did not have siblings	38.87
Control variables	
Wife's age	32.91 (6.08)
Wife's age at first birth	22.64 (3.42)
Wife's *hukou*	
Agricultural	34.77
Non-agricultural	29.23
Resident	36.00
Household income (logged)	2.12 (0.53)
Wife's educational attainment	
Primary school or less	5.62
Middle school	28.2
High school/Secondary school	37.87
College or above	28.32
Wife was employed	89.88
The first child was a boy	57.27
Age of the youngest healthy parent of wife (logged)	4.06 (0.12)
Age of the youngest healthy parent of husband (logged)	4.09 (0.12)
Living with wife's parents	14.85
Living with husband's parents	30.07
Province	
Zhejiang	22.82
Sichuan	17.52
Shandong	9.44
Guangdong	13.82
Liaoning	17.08
Hubei	19.32
N=2511	

Table 2. Parameter Estimates from Logit Models of a Mother's Second-child Plan (reference category: having no plan for a second child)

	Model 1	Model 2	Model 3
Primary childcare providers for the first child under age 3 (ref. = young couple)			
Wife's parents	0.49 (0.25)*	0.49 (0.25)*	0.79 (0.35)*
Husband's parents	0.35 (0.13)**	0.36 (0.14)**	0.50 (0.12)***
Wife had siblings (ref. = wife did not have siblings)		-0.01 (0.16)	-0.06 (0.14)
Husband had siblings (ref. = husband did not have siblings)		0.09 (0.22)	0.29 (0.28)
Wife had siblings*Primary childcare providers for the first child			
Wife had siblings*Wife's parents			0.07 (0.28)
Wife had siblings*Husband's parents			0.15 (0.23)
Husband had siblings*primary childcare providers for the first child			
Husband had siblings*Wife's parents			-0.58(0.48)
Husband had siblings*Husband's parents			-0.43 (0.18)*
The first child was a boy (ref. = a girl)	-0.26 (0.13)*	-0.26 (0.12)*	-0.26 (0.13)*
Wife's age	-0.14 (0.02)***	-0.14 (0.02)***	-0.14 (0.02)***
Wife's age at first birth	0.04 (0.02)*	0.04 (0.02)*	0.04 (0.02)*
Wife's *hukou* (ref. = agricultural *hukou*)			
Non-agricultural *hukou*	-0.18 (0.13)	-0.17 (0.11)	-0.17 (0.12)
Resident *hukou*	-0.12 (0.16)	-0.11 (0.16)	-0.11 (0.15)
Household income (logged)	0.37 (0.21)	0.37 (0.21)	0.36 (0.21)
Wife's educational attainment (ref. = middle school)			
Primary school or less	0.30 (0.17)	0.30 (0.17)	0.29 (0.17)
High school/Secondary school	-0.09 (0.11)	-0.08 (0.12)	-0.08 (0.12)
College or above	-0.25 (0.16)	-0.23 (0.14)	-0.23 (0.14)
Wife was employed (ref. =not employed)	-0.02 (0.22)	-0.02 (0.20)	-0.01 (0.20)
Age of the youngest healthy parent of wife (logged)	-0.65 (0.76)	-0.64 (0.74)	-0.63 (0.75)
Age of the youngest healthy parent of husband (logged)	0.02 (0.77)	-0.06 (0.57)	-0.07 (0.57)
Living with wife's parents (ref. =not living together)	0.13 (0.10)	0.13 (0.10)	0.13 (0.10)
Living with husband's parents (ref. =not living together)	-0.05 (0.19)	-0.06 (0.17)	-0.06 (0.17)
Provinces (ref. = Zhejiang)			
Sichuan	0.25 (0.06)***	0.26 (0.07)***	0.24 (0.07)***
Shandong	0.85 (0.12)***	0.86 (0.12)***	0.84 (0.11)***
Guangdong	0.71 (0.05)***	0.71 (0.06)***	0.70 (0.06)***
Liaoning	0.65 (0.18)***	0.66 (0.22)**	0.65 (0.21)**
Hubei	-0.29 (0.08)***	-0.29 (0.07)***	-0.32 (0.06)***
N	2511	2511	2511
-2 Loglikelihood	-1,374.47	-1,374.15	-1,371.50
AIC	2,758.94	2,758.29	2,752.99
BIC	2,788.08	2,787.43	2,782.14

Note: Cluster standard errors are in parentheses. ref. = reference group.
* p<0.05; ** p<0.01; *** p<0.001 (two-tailed tests).

Table 3. Parameter Estimates from Multinomial Logistic Models of the Primary Childcare Providers for the First Child under Age 3 (reference category: young couple)

	Wife's parents	Husband's parents
Wife had siblings (ref. = wife did not have siblings)	-0.71 (0.15)***	0.24 (0.10)*
Husband had siblings (ref. = husband did not have siblings)	0.34 (0.24)	-0.36 (0.08)***
The first child was a boy (ref. = a girl)	-0.27 (0.18)	-0.03 (0.08)
Wife's age	0.01 (0.03)	0.01 (0.02)
Wife's age at first birth	-0.03 (0.05)	-0.07 (0.02)***
Wife's *hukou* (ref. = agricultural *hukou*)		
Non-agricultural *hukou*	0.45 (0.26)	0.029 (0.26)
Resident *hukou*	-0.08 (0.39)	0.20 (0.151)
Household income (logged)	0.31 (0.27)	0.14 (0.15)
Wife's educational attainment (ref. = middle school)		
Primary school or less	-0.46 (0.39)	-0.32 (0.21)
High school/Secondary school	0.02 (0.23)	-0.21 (0.12)
College or above	0.41 (0.20)*	0.11 (0.30)
Wife was employed (ref. =not employed)	0.91 (0.22)***	1.13 (0.36)**
Age of the youngest healthy parent of wife (logged)	1.01 (1.01)	0.78 (0.81)
Age of the youngest healthy parent of husband (logged)	0.91 (1.19)	-0.91 (0.84)
Living with wife's parents (ref. =not living together)	1.28 (0.29)***	-0.77 (0.28)**
Living with husband's parents (ref. =not living together)	-1.01 (0.31)***	0.93 (0.26)***
Provinces (ref. = Zhejiang)		
Sichuan	-0.21 (0.10)*	-0.98 (0.06)***
Shandong	-0.31 (0.18)	-0.01 (0.05)
Guangdong	-0.04 (0.17)	0.41 (0.13)***
Liaoning	0.56 (0.22)**	-0.13 (0.15)
Hubei	-1.02 (0.19)***	-0.97 (0.17)***
N	2511	
-2 Loglikelihood	-2,048.23	
AIC	4,106.46	
BIC	4,135.60	

Note: Cluster standard errors are in parentheses. ref. = reference group.
* p<0.05; ** p<0.01; *** p<0.001 (two-tailed tests).

Figure 1. Percentage Distributions of Second-child Plan, by Primary Childcare Providers for the First Child
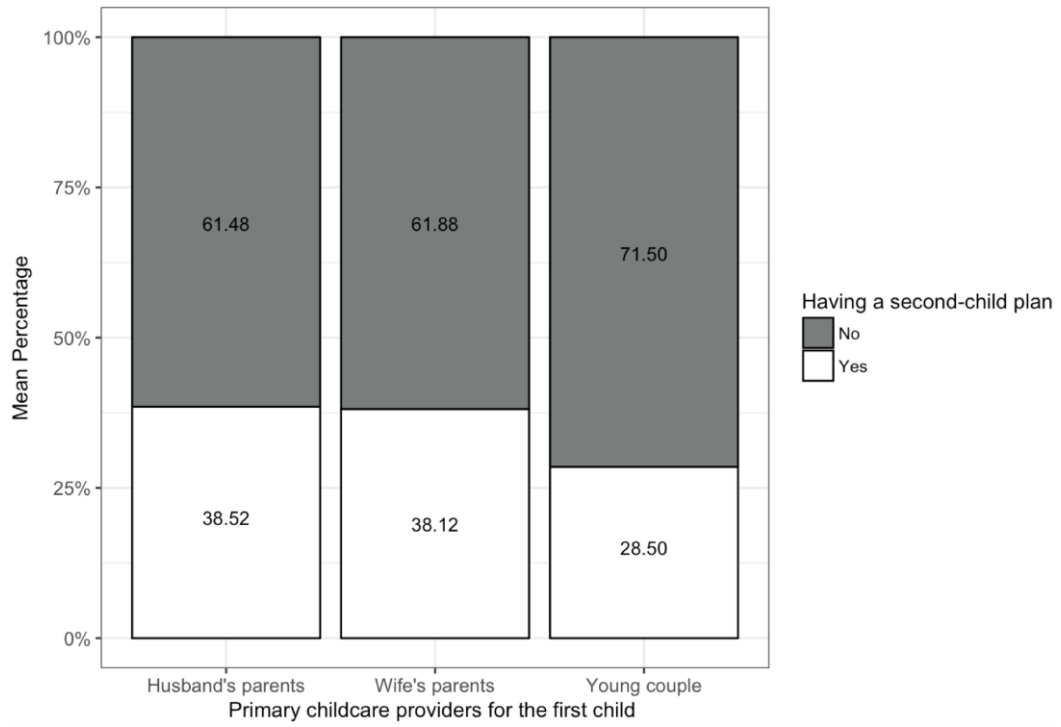
Figure 2. Percentage Distributions of Primary Childcare Providers for the First Child, by Sibship Status of Wife and Husband