

Breastfeeding Supports for Two-Child Professional Women: A Case Study of Beijing, China

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Abstract

How to create a balance between family and career is always a serious decision for professional women. The implementation of China's universal two-child policy has reheated this discussion. Breastfeeding, as one of the instincts of human reproduction, has become the first barrier for professional women to return to work. Using the *Beijing two-child women's maternity survey* data, this paper analyzes how social supports influence the weaning time of two-child professional women, and tries to provide a practical and theoretical basis for the establishment of a family friendly social environment after the implementation of the universal two-child policy. Results show that most two-child mothers weaned much earlier than suggested, and this is even more acute among professional women. Setting up breastfeeding rooms at the workplace and popularizing scientific breastfeeding knowledge can reduce the risk of premature weaning among professional women. However, the emotional support of friends and relatives may be "meaningful but misguided," leading to premature weaning.

Key words

breastfeeding, social support network, professional women, working rights protection

Introduction

The Chinese government implemented the universal two-child policy in 2016, a significant adjustment to the selected two-child policy adopted in

2013 that enabled couples to have two children if either the husband or the wife is from a single-child family. However, childbirth is the combined result of many familial aspects and individual fertility desire does not necessarily translate into actual reproductive behavior (Chen & Jin, 2011; Guo, 2008; Mao & Luo, 2013). According to the *National economic and social development statistics bulletin* of 2015-2017, released by China's National Bureau of Statistics, the crude birth rate before the universal two-child policy was 12.07% in 2015, while the crude birth rate thereafter was 12.95% in 2016 and 12.43% in 2017, indicating no expected dramatic increase in birth rate and no baby boom from the universal two-child fertility policy. The reason for the low birth rate is a reflection of China's low fertility desire (Mao & Luo, 2013), which can be attributed to many social, economic, and individual factors. In addition to the direct nurturing pressure and the economic pressure in bringing up a child, the impact of pregnancy, breastfeeding, and parenting on the career development of women cannot be ignored (Lin, 2014; Song & Zhou, 2015). A woman plays the central role in reproduction as well as being an important human resource. In a woman's life, the period between 20-30 years of age is the best childbearing age and the best time to participate in the labor market. For a long period of time, most women have to juggle work and childrearing owing to a lack of institutional policies and mechanisms that could relieve the conflict between employment and childrearing (Zheng, 2016). How to balance family and work is the major problem currently facing professional women.

A large number of studies have shown that breastfeeding promotes growth, enhances immunity, improves cognitive ability, and reduces the risk of childhood obesity and allergic diseases in infants. Moreover, it can strengthen the emotional communication between mother and child, enhance maternal health recovery, and reduce the risk of ovarian cancer and breast cancer. It is still the most economical and convenient way to feed infants (Xu, Yu, & Li, 2008). Although the benefits of breastfeeding for infants, mothers, families, and society are widely recognized, the actual breastfeeding situation is not an optimistic one in China.

Over the last century, Europe and North America have led the world in the decrease of breastfeeding through sharing Western health care techniques and technologies. From the 1970s, a decline in the breastfeeding rate began to spread to China. The breastfeeding rate showed a worrying downward trend not only in urban areas, but also in rural and mountainous areas

that experienced the economic recovery (Ding, 1994). The exclusive breastfeeding rate is the lowest in big cities, followed by small cities and rural areas, and continues to decline in China.

However, since 1978, the WHO and UNICEF have made the promotion of breastfeeding a primary goal through the development of international standards and policies. The report *Global strategy for infant and young child feeding*, jointly published by WHO and UNICEF in 2003, indicates that breastfeeding is the best feeding practice for healthy growth and development; exclusive breastfeeding is recommended for six months, and continued breastfeeding for up to two years or longer. Perhaps because of this strong public promotion, the rates of new mothers who initiate breastfeeding in developed countries have risen substantially over the past three decades, while the rates of exclusive breastfeeding remain low. The Office of Disease Prevention and Health Promotion (Office of Disease Prevention and Health Promotions, 2013) reported that American infants who were ever breastfed increased to 74%, among whom only 14.1% of infants under one year were breastfed exclusively for more than six months during 2007-2009.

Because of enrollment expansion in higher education, population mobility, and the policy of *late marriage and late childbirth*, the mean age of childbearing (MAC) in China has witnessed a remarked growth since 1995. In China, the MAC of the first child was 26.63 years old while the MAC of the second child was 30.21 in 2015; this increased by 2.8 years each year compared to the same rate in 1995 (Song & Zhang, 2017). In 2015, female workers numbered more than 330 million, 42.9% of the total workers, among which 270 million women were of childbearing age according to China's 2010 census (National Bureau of Statistic China, 2017). Married couples giving birth to at least one child is considered necessary in Confucian culture. Because the one child policy was implemented over three decades, professional women who had given birth to their only child and had returned to the labor market afterwards were usually regarded as full-time workers. Thus, professional women could restart their move up the career ladder with an advantage (Ou, 2016). However, as the universal two-child policy has legally entitled women to a second childbirth, giving birth to the second child may worsen a woman's career development through the so-called gender discrimination of higher employment requirements, lower income, and segregation between them and their male cow-

orkers (Zhang, 2009). Empirical research shows that female wage rates will fall by about 7% for every additional child to which she gives birth, and this negative impact will increase as the number of births increases (Yu & Xie, 2014). Moreover, childbirth is just the first step; how to raise the child is a more important issue. Typically, women need a period ranging from six months to one year of lactation to breastfeed their babies, and spend more time caring for newborns given the concept of a traditional family division of labor (Becker, 1985; Becker, Murphy, & Tamura, 1990). In practice, most women bear the main responsibility for child-rearing and housework/household labor. Because of their irreplaceable role in breastfeeding, breastfeeding the newborn baby becomes a significant obstacle to females returning to work.

For urban mothers having a second child, it seems much more difficult to balance the length of the breastfeeding period and retain preferable working conditions since the fertility policy was released. The female labor force participation rate in China was 61.49% by 2017, compared to 59.21% in East Asia and 55.74% in the United States; the rate in urban China is over 70% (Feng, Hu, & Moffitt, 2017). Currently, large numbers of married women over 35 years who could not have two children because of the former one child policy, have a strong desire to have two children, and cannot wait to realize this desire in the coming two or three years according to their relatively older age. Usually, older mothers are the backbone of companies, and they face the burden of both child care and elderly parents' care. They are supposed to cut down the breastfeeding period despite facing multiple pressures. Until now, little literature has focused on the differences in breastfeeding duration and weaning times between the first and second born in China, as most couples have only one child.

Protecting women's rights and interests is an important part of building a family friendly social environment. From the perspective of the individual, protecting breastfeeding can, on the one hand, promote maternal health recovery and help mothers to reduce the weight gained during pregnancy; on the other hand, protecting breastfeeding can also enhance neonatal immunity and resistance, while in the meantime the child experiences maternal love, which is conducive to the comprehensive development of cognitive skills, language, and intelligence. From the perspective of the family, ensuring breastfeeding reduces the cost of nursing, but also protects the career development of women in the workplace, which is an effective protection

and support for each family unit. From society's perspective, the fertility level could be improved by reducing the cost of nurturing childcare and encouraging qualified families to have a second child.

The literature suggests that breastfeeding duration is influenced by various demographic, biological, psychological, and social variables. Previous research reveals that social variables such as paid work (Rea & Morrow, 2004; Taveras et al., 2003), family support (Pisacane, Continisio, Aldinucci, D'Amora, & Continisio, 2005) and professional support are relevant (Nelson, 2007). Early return to work is one of the obvious negative factors while maternal infant feeding attitudes are a positive factor (Scott, Binns, Oddy, & Graham, 2006). Complementing professional services with peer support has proved to be a promising intervention (Dennis, 2002). However, we can find very little literature about family or professional support for Chinese working women under the circumstance of the two-child policy.

Beijing is one of the earliest cities in China to implement a family planning policy. After 30 years of strict population control, a large number of only children reached marriageable age. According to the Beijing Family Planning Regulations, since February 2014, couples can have a second child where either the husband or the wife is from a single-child family. In 2014, Beijing had a resident population of 21.516 million, including 208 thousand newborns, with a fertility rate of 9.75 per thousand—the highest level since 1991; of the qualified families, 37% were willing to have a second child according to the *Beijing population development report 2014* (2015). What kind of help can families, institutions, and society provide for working women who face the breastfeeding needs of a second child? Using data from the *Beijing two-child women's maternity survey*, we analyze breastfeeding behavior and the associated risk factors of working women after a second childbirth, from the perspective of social support. The aim is to provide more secure protection for two-child mothers in balancing family and career, and to provide a practical and theoretical basis for the establishment of a family friendly social environment in the context of the universal two-child policy. The paper is organized as follows: The following section introduces the Chinese context of working women's childbearing, and specifically breastfeeding. The subsequent section presents the data and analysis methodology. The final sections present the results, followed by the discussion.

Literature Review

Chinese Context

At present, China's maternity protection system mainly focuses on providing economic reimbursement to working women from state organizations, enterprises, and other types of economic and social organizations during maternity leave. However, there is a lack of economic and material systems to protect women's breastfeeding rights. Since the beginning of 2016, following the implementation of the universal two-child policy, 26 provinces and cities have issued new regulations on maternity leave. Among them, Zhejiang, Jiangsu, Guangdong and other southeast coastal provinces, Beijing, Shanghai, and other megalopolises have extended maternity leave to 128 days, while most of the other provinces and cities have extended it to 158 days. On the whole, the vast majority of working women will return to work within six months after childbirth.

Regulations Concerning the Labor Protection of Female Staff and Workers of China stipulates that "Units employing female staff and workers with a baby under one year of age shall grant them two feeding (including bottle feeding) breaks of 30 minutes each during each shift." However, the 30-minute feeding break includes both the feeding time and transportation time to and from the workplace. With the extension of cities, most people live far away from their workplace and spend quite a long time commuting.

Breastfeeding rooms in public and private entities have increased gradually in recent years. The All-China Federation of Trade Unions claimed that a total of 296,000 grass-root enterprises and labor unions have established women workers' breastfeeding rooms throughout the country, covering 18,894 million women employees by September 2017. However, the proportion of qualified workplaces or public places remains low and worrisome conditions are not uncommon. Non-lactating people can enter the temporary breastfeeding room, which makes it embarrassing and insufficiently intimate. Some breastfeeding rooms have poor sanitary condition or lack the necessary facilities.

Maternal separation during the daytime reduces the child's sucking, and in turn this affects the secretion of breast milk, which is a challenge to continued breastfeeding. Therefore, for the sake of career development, many working women choose to prepare breast milk in advance or add formula

milk and complementary food supplements to their babies' diets in order to wholeheartedly return to work.

Theoretical Framework

Social support was introduced into sociological research in the 1970s, and has experienced long-term development. However, a consensus on the definition of social support has not yet been reached. Some researchers propose that social support is the availability of free assistance and services that the society provides for vulnerable populations. Other researchers believe that, from the perspective of the relationship between psychosocial stimulation and individual mental health, social support should be defined as the assistance a person receives from social ties that can help to relieve mental stress and improve social adaptability (He, 2002). Thus, social support is not just one-way care or assistance. In most cases it is a type of social exchange, as well as a social interaction between people. Nowadays, a social support network is generally regarded as a social network whereby individuals can obtain a variety of social supports (such as money, emotion, information, etc.).

In early studies on social support networks, there were no strict distinctions in types of social support. Social ties were generally considered beneficial to resolving difficulties in daily life. Later, researchers began to make distinctions concerning social support from different perspectives. Wellman and Wortley (1989) provided five different dimensions of social support, including emotional aid, minor services, major services, financial aid, and companionship. Cutrona and Russell (1990) indicated that social support included emotional aid, social integration support, reassurance of worth support, material aid, and information aid. Chen (2000) divided social support into objective support (including direct material aid and participation in social networks and groups), and subjective support (emotional support as perceived by individuals).

In this study, we divided the social support network of working women during lactation into material support, emotional support, and informational support, as illustrated in Figure 1.

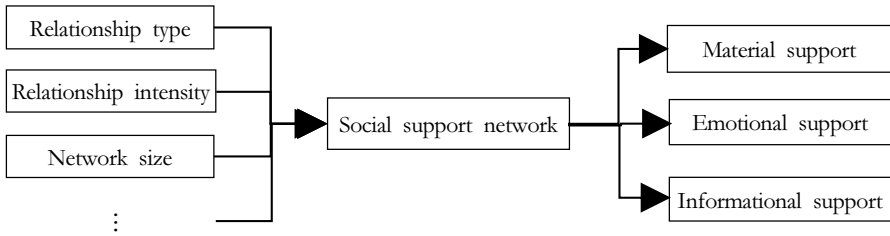


Figure 1. Framework of social support theory.

- (1) Material support refers to direct material assistance, which is objective and visible. For lactating women, the regulations on breastfeeding time, scope of work, and facilities like a female workers' health room, lounge for pregnant women, and breastfeeding rooms within the "Special Labor Protection Provisions on Female Workers" all pertain to material support.
- (2) Emotional support refers to subjective and perceived emotional aid. It refers to individuals' emotional experience and satisfaction with the respect and support from society. During lactation, the emotional support for new mothers is mainly obtained from relatives and friends. Baranowski et al. (1983) found that Mexican-American women received most support from their mothers during lactation. With their mothers supporting breastfeeding, new mothers were more likely to breastfeed their babies; their mothers also provided emotional support, tangible aid, and informational support (Lupton & Whelan, 1998). In addition, supportive attitudes and assistance from friends also positively affected the decision to breastfeed (Clifford & McIntyre, 2008), whereas if friends did not support them or exerted negative pressure, new mothers were very likely to stop breastfeeding (Lupton & Whelan, 1998).
- (3) Informational support refers to the functions of the social network in promoting the flow of knowledge and information, and providing advice or guidance on resolving existing problems. With the development of modern society and an accelerated pace of life, a variety of breast milk substitutes has emerged, including the benefits of insisting that breastfeeding has become a new form of knowledge. Previous studies found that disseminating the benefits of breastfeeding could improve the likelihood of new mothers adopting breastfeeding

behaviors. New mothers' knowledge on breastfeeding was one of the independent factors affecting early breastfeeding behavior (Zhang et al., 2012).

Methods

Data

This study used *Beijing's two-child women's maternity survey*, which was implemented by the Science and Technology Research Institute of the National Health and Family Planning Commission. The survey began on September 18, 2015, and covered 16 districts in Beijing. Among those who qualified for the universal two-child policy or the "two-child fertility policy for couples where either the husband or the wife is from a single-child family" in August, pregnant women who have already given birth to one child or women with two children but not currently pregnant, were eligible interviewees. To avoid potential errors in determining the number of children, the study only sampled those first marriage couples that were registered as permanent residents in Beijing. The total sample size was 500; pregnant women who had already given birth to one child accounted for 50% of the sample, and women with two children but not currently pregnant accounted for the other 50%. Among the latter group, 150 were between 20 and 34 years, and 100 were between 35 and 49.

The sampling process included two stages. In the first stage, 50 communities and towns were sampled from 331 communities and towns in 16 districts in Beijing, using the method of probability proportionate to size sampling (PPS). The larger the size of the district's population, the more streets and towns were sampled. In the second stage, a quota sampling strategy was adapted to sample the target population within the selected streets and towns. Among the whole sample at this stage, 25 individuals were also randomly chosen for qualitative research. The quantitative study sample featured a wide spatial distribution coverage to better represent the needs of women of childbearing age in Beijing. Because this was not a random sample, we could not calculate the precision indicators, such as sampling errors, thus could not evaluate the representativeness of the sample with quantitative methods. However, the representativeness of this study sample was still an improvement over other nonrandom samples.

This study analyzed pregnancy, confinement, contraception, and abortion

during the birth interval, and basic demographic information on education, residency, and income of the target population's family members. Given the study's aims, only those who were qualified according to the universal two-child policy, had already given birth to the second child, and had complete sample information were included. In total, 247 women were included in this study.

Cox Proportional Hazards Regression Model

Cox regression (or proportional hazards regression) is a method for investigating the effect of several variables upon the time a specified event—in this case, weaning—takes to happen. It assumes all the covariates are multiplicatively related to the hazard, and reports hazard ratios as the effect of the estimated covariates. An important advantage is that Cox regression is suitable to analyzing censored data.

The formula of the Cox proportional hazards regression model is:

$$h(t, X) = h_0(t) \cdot \exp \sum_{i=1}^p \beta_i x_i \quad (1)$$

$$X = (X_1, X_2, \dots, X_p)$$

Where $h(t, X)$ denotes the risk of weaning at time t , under the condition (X_1, X_2, \dots, X_p) ; $h_0(t)$ is the baseline risk. (X_1, X_2, \dots, X_p) are independent variables including material support, emotional support, informational support, and control variables.

The formula of the hazard ratio is:

$$\hat{HR} = \frac{\hat{h}(t, X^*)}{\hat{h}(t, X)} \quad (2)$$

$$\hat{HR} = \frac{\hat{h}_0(t) \cdot \exp \sum_{i=1}^p \beta_i x_i^*}{\hat{h}_0(t) \cdot \exp \sum_{i=1}^p \beta_i x_i} = \exp \left[\sum_{i=1}^p \beta_i (x_i^* - x_i) \right] \quad (3)$$

Dependent variable. breastfeeding time of the second child. The average breastfeeding time was 7.37 months ($N = 247$). Among the sample,

31.98% ($N = 79$) of the women had already weaned, and 68.02% ($N = 168$) were still breastfeeding their babies at the time of the survey.

Independent variable. independent variables were selected according to the social support network framework. Material support variables include “whether there is an independent office room or breastfeeding room at workplace” and “time from home to workplace”; emotional support includes “whether [one] received any practices and knowledge about breastfeeding from seniors within the family when giving birth to the second child” and “whether [one] received any practices and knowledge about breastfeeding from colleagues or friends when giving birth to the second child.” In fact, receiving breastfeeding information from seniors, relatives, or friends means more emotional support. Informational support includes “guidance received about breastfeeding when giving birth to the second child.” Guidance about breastfeeding from hospital or community doctors implies a positive attitude toward breastfeeding the second child as the percentage of infants 0–5 months of age who are fed exclusively with breast milk in China is low at about 20.8% by 2013 (UNICEF, 2018).

Control variables. control variables include age, whether the mother is an only child, occupation, years of education, family income, age at giving birth to the second child, confinement mode, childbirth interval, etc. (See Table 1 for the definition of variables).

Table 1.
Definition of Variables

Variable	Definition	Measurements
Material support	Whether there is independent office room or breastfeeding room at workplace	Yes, there is = 1, No = 0
	Whether the time from home to workplace is less than 15 minutes	Yes, less than 15 minutes = 1, no = 0
Emotional support	Whether [one] received any practices and knowledge about breastfeeding from relatives and friends	Yes = 1, no = 0
	Whether [one] received any practices and knowledge about breastfeeding when giving birth to the second child from professional channels	Yes = 1, no = 0
Informational support	Whether to try to get the child sucking the nipple within half an hour of confinement	Yes = 1, no = 0
	Professional guidance on breastfeeding	

Variable	Definition	Measurements
	Whether [one] received prenatal guidance	Yes = 1, no = 0
	Whether [one] received guidance on breastfeeding	Yes = 1, no = 0
	Whether [one] received maternal nutrition guidance	Yes = 1, no = 0
	Whether [one] received child nutritional guidance	Yes = 1, no = 0
	Whether the mother is an only child	Yes = 1, no = 0
	Age	_____ (years old)
	Occupation	No job or farmers = 1, work at government institutions, state-owned enterprises, private-owned enterprise, foreign-owned enterprise, self-employed, freelancer, and others = 2
Control variables	Time of education	_____ (years)
	Family income	Ln(yearly family income)
	Age of giving birth to the second child	_____ (years old)
	Confinement mode	Easy delivery = 1, cesarean delivery = 2
	Childbirth interval	_____ (years)

Results

Descriptive Statistics

First, we descriptively explored broad patterns among the mothers who had given birth to their second child. The sample included 247 women who were qualified according to the universal two-child policy and had already given birth to their second child. Among them, 66% were between 25 and 34 years, and 64% of the mothers were themselves only children. The majority had secondary education or higher (89%). Nearly 70% of the mothers were employed, among which nearly half were working at government institutions or state-owned enterprises. Characteristics of the sample are shown in Table 2.

Table 2.
Descriptive Statistics (N=247)

Variables	Percentage (%)	Variables	Percentage (%)
Age		Occupation	
25-29	12.55	No job	29.15
30-34	53.85	Farmer	2.43
35-39	29.96	Government institutions, state-owned enterprises	30.77
40-44	2.02	Collectively owned enterprise (having income)	4.45
45-49	1.62	Private-owned enterprise, foreign-owned enterprise, self-employed, and freelancer	30.77
Education		Others	2.43
Junior high school	10.93	Family income	
Senior high school	17.00	50 thousand or below	18.62
Junior college	25.51	50-100 thousand	36.84
Undergraduate	35.63	100-200 thousand	25.10
Graduate or higher	10.93	200-300 thousand	11.74
Only child		300-500 thousand	6.07
Yes	63.97	500-1,000 thousand	0.81
No	36.03	1,000 thousand or above	0.81

Figure 2 illustrates the times of breastfeeding. Among the sample, 79 mothers had already weaned their second child. Their average breastfeeding time was 8.35 months, far below the two years suggested by the World Health Organization; 54.4% of the women breastfed for less than six months and only 10.1% breastfed for more than one year (WHO, 2017).

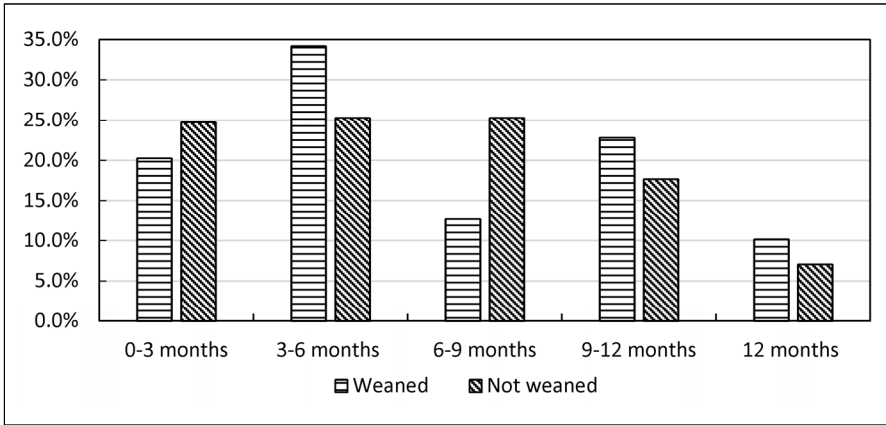


Figure 2. Time distribution of breastfeeding for the second child.

Figure 3 shows the distribution of occupation and breastfeeding time. The peaks of weaning time for women with and without jobs (or farmers) were all concentrated between three months (34%) and six months (34.6%). However, the second weaning-time peak differed significantly. This was between 9 and 12 months for professional women (28.3%), but was more than 12 months for women without a job or for farmers (19.2%). The descriptive results pointed to notable differences between professional women and those without a job (or farmers) in the likelihood of weaning after six months.

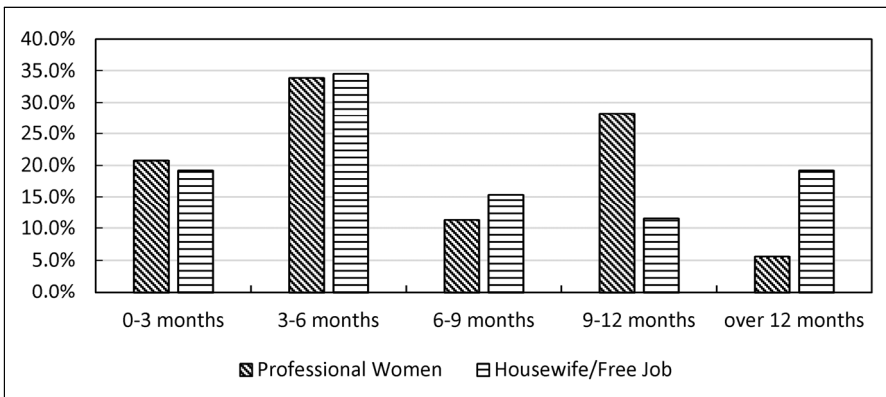


Figure 3. Weaning time and employment distribution.

Regression Results

Based on the framework of social support network for professional women during lactation, we performed the Cox regression on the breastfeeding time of women who had given birth to their second child, as shown in Table 3.

Table 3.
Cox Proportional Hazards Regression (N=247)

	Variables	Coef.	Haz. Ratio
Material support	Whether there is independent office room or breastfeeding room at workplace	-0.991 ^{***}	0.371
	Whether the time from home to work is less than 15 minutes	-0.727 ^{**}	0.483
Emotional support	Whether [one] received any practices and knowledge about breastfeeding from relatives and friends	0.575 [*]	1.776
Informational support	Whether [one] received any practices and knowledge about breastfeeding from professional channels when giving birth to the second child	0.173	1.189
	Whether to try to get the child sucking the nipple within half an hour of confinement	0.142	1.205
	Professional guidance on breastfeeding		
	Whether [one] received prenatal guidance	-0.106	0.899
	Whether [one] received guidance on breastfeeding	0.689	1.993
	Whether [one] received maternal nutrition guidance	-0.934 [*]	0.393
Control variables	Whether [one] received child nutritional guidance	0.394	1.483
	Whether the mother is an only child	0.690 ^{**}	1.994

Note. ^{*} $p < .1$, ^{**} $p < .05$, ^{***} $p < .01$.

Log-log Kaplan-Meier curves were drawn to conduct the hypothesis test of significant variables in the Cox proportional hazards regression. Results showed that curves of “Whether there is an independent office room or breastfeeding room at the workplace,” “Whether the time from home to workplace is less than 15 minutes,” and “Whether [one] received maternal nutrition guidance” were parallel; curves of “Whether the mother is an only child” were not parallel in the first two months, but then became parallel the rest of the time, thus failing to reject the proportional hazard hypothesis. “Whether [one] received any practices and knowledge about breastfeeding

from relatives or friends” resulted in rejecting the proportional hazard hypothesis (see Figure 4). As “Whether [one] received any practices and knowledge about breastfeeding from relatives or friends” resulted in rejecting the proportional hazard hypothesis, we adopted the General Stratified Cox (SC) Model to perform further analysis. The formula was as follows:

$$h_g(t, X) = h_{0g}(t) \cdot \exp \sum_{i=1}^p \beta_i x_i \tag{4}$$

$g = 1, 2, \dots, k^*$

Where g refers to variables that rejected the proportional hazard hypothesis; in this study, g referred to “Whether [one] received any practices and knowledge about breastfeeding from relatives and friends.”

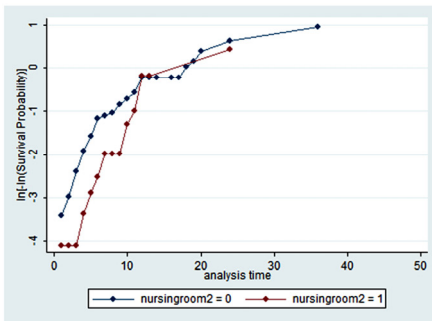


Figure 4.1. Whether there is independent office room or breastfeeding room at workplace

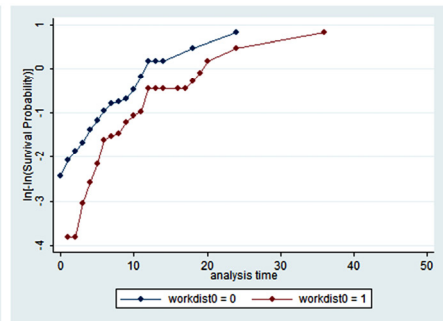


Figure 4.2. Whether the time from home to workplace is less than 15 minutes

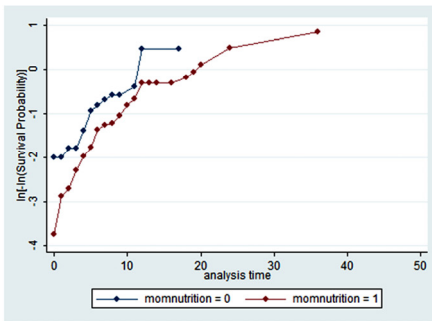


Figure 4.3. Whether [one] received maternal nutrition guidance

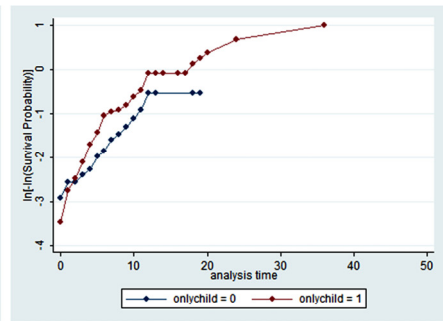


Figure 4.4. Whether the mother is an only child

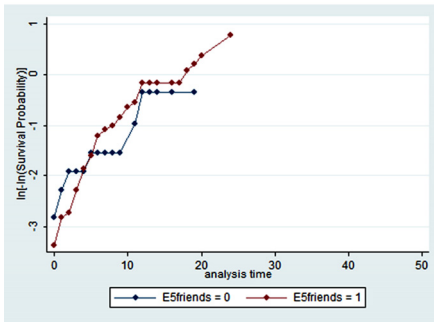


Figure 4.5. Whether [one] received any practices and knowledge about breastfeeding from relatives and friends

Based on the above analysis on the risk factors for discontinuing breastfeeding of professional women given the framework of social support network, we obtained the results described in Table 4 and can conclude the following:

Material support. Material support significantly affected professional women's continuing to breastfeed. Women with an independent breastfeeding room in the workplace were less likely to discontinue breastfeeding compared with those who did not have access to a breastfeeding room as these rooms provide a private space for women to take and store breast milk, and avoid the trouble of returning home to breastfeed infants.

The time from home to workplace was also a significant factor affecting the discontinuation of breastfeeding. When commuting took more than 15 minutes from home to workplace, the risk of discontinuing breastfeeding increased correspondingly. Therefore, it is very necessary to establish breastfeeding rooms at the workplace.

Emotional support. Emotional support was an important risk factor affecting the discontinuation of breastfeeding. However, contrary to expectations, women who have received suggestions and practice guidance from relatives or friends were more likely to discontinue breastfeeding. The results of the qualitative interviews showed that incorrect suggestions from relatives or friends more than offsets their emotional support, and made new mothers prefer to discontinue breastfeeding. Therefore, in addition to providing new mothers with various information and services on breastfeeding, friends and relatives of the new mothers should also be educated

on the benefits of breastfeeding, in order to build a family friendly social environment.

Informational support. The more knowledge on breastfeeding that professional women have, the less likely they are to discontinue breastfeeding. Receiving maternal nutrition guidance was an important factor that affected the discontinuation of breastfeeding. Women who have received professional guidance on maternal nutrition were less likely to discontinue breastfeeding than those who did not. Among those who have already weaned, the average breastfeeding time for professional women who have received maternal nutrition guidance was 8.2 months, three months longer than those who have not.

Individual characteristics. The effect of professional women's individual characteristics on their breastfeeding decisions also cannot be ignored. Compared with non-only-child professional women, those only-child mothers were more likely to discontinue breastfeeding. It is generally believed that only children are more self-centered and demanding, and the double pressures of breastfeeding and work often make the only-child professional women discontinue breastfeeding prematurely.

Table 4.
Stratified Cox Procedure (N=247)

Variables	Coef.	Haz. Ratio
Whether there is independent office room or breastfeeding room at workplace	-1.271	0.280
Whether the time from home to work is less than 15 minutes	-1.362 [*]	0.256
Whether received maternal nutrition guidance	-0.674	0.510
Whether the mother is an only child	20.009 ^{***}	4.89e ⁸
Received experience from friends and relatives*breastfeeding room	0.429	1.536
Received experience from friends and relatives *time from home to work place	0.765	2.149
Received experience from friends and relatives * received maternal nutrition guidance	0.439	1.551
Received experience from friends and relatives * Whether the mother is an only child	-19.491	3.43e ⁻⁹

Note. ^{*} $p < .1$, ^{**} $p < .05$, ^{***} $p < .01$.

Discussion

This study found that in Beijing, the average breastfeeding time for the second child was 8.35 months, and most two-child mothers weaned prematurely, far below the two years of breastfeeding time suggested by the WHO; this situation was more acute among professional women. Faced with the dual pressures of work and breastfeeding, professional women prefer to discontinue breastfeeding prematurely and return to work. Within the framework of social network support theory, both material support (setting up breastfeeding rooms in workplace) and informational support (popularizing scientific breastfeeding knowledge) can reduce the risk of premature weaning among professional women. However, the emotional support of friends and relatives may be “meaningful but misguided,” leading to premature weaning instead.

Professional women serve as wives and mother in the family, and in the labor force in society, thus facing dual pressures. As the traditional gendered division of labor has still not completely disappeared, professional women nowadays not only need to go out to work, but also need to look after the house, thus playing multiple roles (Esping-Andersen, 2009). In order to free them from the dilemma of breastfeeding and work, both family and society should provide the necessary support.

Breastfeeding mothers are also vulnerable to psychosocial dynamics. This paper only analyzed the emotional support from parents, relatives, and friends of the new mother, however factors like the full participation of husbands and awareness of women’s rights may also have an impact on breastfeeding. If their families could provide the necessary support and assistance this would also protect the breastfeeding rights of professional women.

Current government protection on the labor rights of professional women during pregnancy mostly concentrate on the rights to work during pregnancy and lactation, rather than the right to breastfeed. Administrative departments often play a fire-fighting role when female workers are fired for pregnancy and breastfeeding, and rarely lead or regulate the employers’ behaviors through financial measures. There are some successful practices in protecting breastfeeding rights in other countries. For example, the government could subsidize or reduce taxes for institutions that employ female workers intensively, thus balancing employers’ labor costs; the government

could also prompt employers to extend maternity leave, provide space and time for breastfeeding through economic measures, and build a family friendly society.

Since the 1960s, with the continuous improvement in the female labor force participation rate and women's economic status, the social status of women has continued to improve. However, the gender division of labor has not changed completely, and female labor rates vary widely around the world. Women's work within the family is underestimated, and there is a broad consensus that the gender revolution is incomplete. In China, gender equality has not been fully integrated into the legislative and decision-making processes of the government, and labor-rights protection for women still focuses on their physical characteristics as a vulnerable group. The existing labor laws and policies should be revised to take gender equity into consideration, promote the social status of women to new levels, and guarantee women's career development opportunities.

Finally, it should be noted that as the study involved only 168 women, the sample size is quite small. This paper can be considered as a pilot study to provide guidance for follow-up research and to encourage the establishment of a mother-friendly workplace and social environment.

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References

- Baranowski, T., Bee, D. E., Rassin, D. K., Richardson, C. J., Brown, J. P., Guenther, N., & Nader, P. R. (1983). Social support, social influence, ethnicity and the breastfeeding decision. *Social Science & Medicine*, 17(21), 1599-1611. doi: 10.1016/0277-9536(83)90306-4
- Becker, G. S. (1985). Human capital, effort, and the sexual division of labor. *Journal of Labor Economics*, 3(1, Part 2), 33-58. doi: 10.1086/298075
- Becker, G. S., Murphy, K. M., & Tamura, R. (1990). Human capital, fertility, and economic growth. *Journal of Political Economy*, 98(5), 12-37. doi: 10.1086/261723
- Beijing Population Development Research Center. (2015). *Beijing population development report 2014*. Beijing: Social Sciences Academics Press. (In Chinese)
- Chen, C. (2000). *The vulnerable—life and social support of vulnerable groups in a transitioning society*. Beijing: Current Affairs Press.
- Chen, W., & Jin, Y. (2011). Gaps between fertility intentions and fertility outcomes in China: Patterns and determinants. *Population Journal*, 33(2), 3-13. doi: 10.3969/j.issn.1004-129X.2011.02.001
- Clifford, J., & McIntyre, E. (2008). Who supports breastfeeding? *Breastfeeding Review*, 16(2), 9-19.
- Cutrona, C. E., & Russell, D. W. (1990). *Type of social support and specific stress: Toward a theory of optimal matching*. Oxford: John Wiley & Sons.
- Dennis, C. L. (2002). Breastfeeding initiation and duration: A 1990-2000 literature review. *Jognn-Journal of Obstetric Gynecologic and Neonatal Nursing*, 31(1), 12-32. doi: 10.1111/j.1552-6909.2002.tb00019.x
- Ding, Z. (1994). Breastfeeding situation in 1990s in China. *Chinese Journal of Pediatrics*, 45(5), 311-312. doi: 10.3969/j.issn.0578-1310.1994.05.012
- Esping-Andersen, G. (2009). *Incomplete revolution: Adapting welfare states to women's new roles*. Cambridge: Polity Press.
- Feng, S., Hu, Y., & Moffitt, R. (2017). Long run trends in unemployment and labor force participation in urban China. *Journal of Comparative Economics*, 45(2), 304-324. doi: 10.1016/j.jce.2017.02.004
- Guo, Z. (2008). Study on China's low birth level and risk factors. *Population Research*, 32(4), 1-12. doi: 10.3969/j.issn.1000-6087.2008.04.001
- He, Z. (2002). Social economic status, social support network and the health status of rural elders. *Social Sciences in China*, 23(3), 135-148. doi: 10.3969/j.issn.1002-4921.2002.03.012

- Lin, J. (2014). The effect of “single only child” policy on female employment from gender and family perspective. *Collection of Women's Studies*, 13(4), 51-52. doi: 10.3969/j.issn.1004-2563.2014.04.008
- Lupton, P., & Whelan, A. (1998). Promoting successful breast feeding among women with a low income. *Midwifery*, 14(2), 94-100. doi: 10.1016/S0266-6138(98)90004-3
- Mao, Z., & Luo, H. (2013). Difference between fertility intention and fertility behavior for women subject to the two-children policy: An empirical study based on the theory of planned behavior. *Population Research*, 37(1), 84-93. doi: 10.3969/j.issn.1000-6087.2013.01.009
- National Bureau of Statistic of China. (2017). *Development outline of Chinese women (2011-2020)*. Retrieved November 1, 2017, from http://www.stats.gov.cn/tjsj/zxfb/201611/t20161103_1423701.html
- Nelson, A. M. (2007). Maternal-newborn nurses' experiences of inconsistent professional breastfeeding support. *Journal of Advanced Nursing*, 60(1), 29-38. doi: 10.1111/j.1365-2648.2007.04373.x
- Office of Disease Prevention and Health Promotion. (2013). *Healthy people 2020*. Retrieved August 11, 2017, from <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>
- Ou, P. (2016). The effect of general two-child policy on women's career. *China Market*, 23(34), 88-89. doi:10.13939/j.cnki.zgsc.2016.34.088
- Pisacane, A., Continisio, G. I., Aldinucci, M., D'Amora, S., & Continisio, P. (2005). A controlled trial of the father's role in breastfeeding promotion. *Pediatrics*, 116(4), 494-498. doi: 10.1542/peds.2005-0479
- Rea, M. F., & Morrow, A. L. (2004). *Protecting, promoting, and supporting breastfeeding among women in the labor force*. Boston: Springer.
- Scott, J. A., Binns, C. W., Oddy, W. H., & Graham, K. I. (2006). Predictors of breastfeeding duration: Evidence from a cohort study. *Pediatrics*, 117(4), 646-655. doi: 10.1542/peds.2005-1991
- Song, J., & Zhang, J. (2017). Parity, timing of birth, and fertility: A comparative study on the trends and differential mechanism of the mean age at childbearing in China, Japan and Korea. *Population Research*, 41(3), 3-14. doi: 10.3969/j.issn.1000-6087.2017.03.001
- Song, J., & Zhou, Y. (2015). Married women's fertility and its effect on their employment: The role of economic assistance and care support. *South China Population*, 32(1), 58-67. doi: 10.3969/j.issn.1004-2563.2015.04.002
- Taveras, E. M., Capra, A. M., Braveman, P. A., Jensvold, N. G., Escobar, G. J., &

- Lieu, T. A. (2003). Clinician support and psychosocial risk factors associated with breastfeeding discontinuation. *Pediatrics*, 112(1), 108-115. doi: 10.1542/peds.112.1.108
- UNICEF. (2018). *UNICEF data: Monitoring the situation of children and women*. Retrieved June 5, 2018, from <http://data.unicef.org/topic/nutrition/infant-and-young-child-feeding/>
- Wellman, B., & Wortley, S. (1989). Brothers' keepers: Situating kinship relations in broader networks of social support. *Sociological Perspectives*, 32(3), 273-306. doi: 10.2307/1389119
- WHO. (2017). *Protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services*. Retrieved June 5, 2018, from <http://www.who.int/nutrition/publications/guidelines/breastfeeding-facilities-maternity-newborn/en/>
- Xu, T., Yu, X., & Li, C. (2008). The situation and intervention on breastfeeding in China. *Maternal and Child Health Care of China*, 23(17), 2464-2467. doi: 10.3969/j.issn.1001-4411.2008.17.067
- Yu, J., & Xie, Y. (2014). The effect of fertility on women's wages in China. *Population Research*, 38(1), 18-29. doi: 10.3969/j.issn.1000-6087.2014.01.009
- Zhang, K. (2009). On the interaction of gender discrimination in employment and human capital investment bias. *Journal of Zhejiang University (Humanities and Social Sciences)*, 55(5), 103-112. doi: 10.3969/j.issn.1008-942X.2009.05.014
- Zhang, Y., Wang, H., Luo, Q., Zhang, L., Wang, S., & Yao, L. (2012). Status of in-hospital exclusive breastfeeding and its influence factors. *Chinese Journal of Child Health Care*, 20(6), 507-509. doi: 10.3969/j.issn.1008-6579.2012.06.010 (In Chinese)
- Zheng, Z. (2016). Supports are needed for women to work and take care of children in the same time. *Collection of Women's Studies*, 25(2), 5-7. doi: 10.3969/j.issn.1004-2563.2016.02.001

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