## Original Research

# Fertility intentions for a second child among urban working women with one child in Hunan Province, China: a cross-sectional study

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## ARTICLE INFO

## ABSTRACT

*Objectives:* The objective of this study was to describe the fertility intentions of urban working women whose family planning has been limited to one child since the universal two-child policy was adopted and to explore factors associated with intentions to not have a second child.

*Study design:* This is a cross-sectional study.

*Methods:* This study was conducted among 703 urban working women with one child using a self-administered questionnaire from May to August 2016 in Hunan, China. Data were collected on the women's sociodemographic characteristics, attitudes towards having another child and fertility intentions. A descriptive analysis, chi-square test and logistics regression were used for data analysis.

*Results:* The ideal number of children among the urban working women was 2.03 ± 0.35. Fewer than half (32.4%) of working women with one child clearly intended to have another child. Not having another child was independently associated with family type, husband's age, age of the first child, attitude of the husband and parents-in-law, whether the parents-in-law provided economic support and the influence of friends. Participants showed lower second-child intentions with increasing age of the partner and first child (P value = 0.002, 0.026). Participants whose parents-in-law provided economic support were less likely to not want a second child than those whose parents-in-law did not provide economic support (P value = 0.037). Those with husbands and parents-in-law with supportive attitudes were less likely to not want another child (P value = 0.001, 0.022). Participants whose friends positively influenced them to have another child were less likely to intend to not have another child (P value = 0.000).

*Conclusions:* There is no guarantee that the universal two-child policy will be enough to prompt an increase in fertility among urban working women with one child in Hunan Province. Supplementary measures are urgently needed to create a favourable environment for childbearing in China.

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## Introduction

In 1980, the Central Committee of the Communist Party of China established a one-child policy for family planning. Fewer and healthier births have been a state policy since 1982.[1,2] In the past three decades, the one-child policy effectively relieved population pressure,[3,4] and thus, China joined the ranks of 'low-fertility-rate countries'.[2,5] However, new issues with socio-economic ramifications have emerged: accelerated ageing of the population, a skewed sex ratio and a decline in working-age population.[6] Thus, in November 2013, China began to relax the one-child policy: couples were allowed to have a second child if either of the individuals was an only child. Despite this change, fewer couples than expected expanded their families, thus causing a small impact on the natural growth rate of the total population.[7] As a result, a universal two-child policy that allowed all couples to have two children was approved and formally implemented on January 1, 2016.

Although there was a discrepancy between fertility intentions and actual fertility behaviour, the former could, to a certain extent, predict the latter.[8] A longitudinal study indicated that fertility intention is a useful indicator for fertility behaviour.[9] Another study in the US also revealed that although there are discrepancies between fertility intentions and behaviour at the individual level, there is relatively high congruence between aggregate intentions and achieved fertility.[10] Therefore, fertility intentions can offer a reliable predictor of aggregate human fertility behaviour and it is of great significance to the study of fertility intentions.

Previous studies on fertility intentions in other countries have focused more on women's roles and social status. A Japanese study primarily attributed the decline in the fertility rate after the 1970s to the rise of unmarried women of child-bearing age.[11] In Germany, both delayed marriage and increased employment of working women have been related to a similar decrease.[12,13] In several European countries, a recent survey showed that socio-economic policies were the main reason for low fertility.[14] Other studies have indicated that the choice of having or not having children was affected not only by individual preference but also by responses to social, economic and institutional circumstances.[15,16]

Existing studies on fertility intention in China have largely focused on the prenatal effect of economic resources and family support.[17−19] However, there have been limited data and research on fertility intentions under the new family planning law. It is still unclear whether the new policy could prompt an increase in fertility.

Recent studies have found that working women in China today account for 45% of the total working population, which is a higher proportion than in the rest of the world.[20] In line with Chinese tradition, urban working women are usually full-time rather than part-time workers.[21] Therefore, they have been caught in a conflict between individual and family development as well as reproductive responsibility.[22,23] In addition, national policy has been more effective in influencing and controlling fertility choices among urban couples via strong political and administrative forces.[4]

Working women with one child account for a substantial proportion of working women in China. However, little is known about their present situation and second-child intentions in the context of China's current low population growth and the implementation of a universal second-child policy. To the best of our knowledge, no research on this topic has been conducted in Hunan Province. Our study is an attempt to fill this gap and addresses the following three areas:

- actual second-child intentions among our target population (urban working women in Hunan Province who already have one child);
- factors associated with the decision to not have a second child among our target population;
- measures that the appropriate government departments can undertake to encourage second-child intentions (among our target population).

## Methods

### Study design

A cross-sectional survey of urban working women with one child was conducted to collect information about intentions to have a second child and factors that may be related to those intentions.

### Sample and setting

The survey was conducted in Hunan Province from May to August 2016. Hunan Province is located in southeastern China, and there are 14 districts within it. By 2010, Hunan had an urban female population of 6.30 million. The percentage of the female population that aged between 20 and 49 years is 56.46%, which is close to the percentage of women in the general urban population of China (57.08%).[24,25]

The target population in the present study was urban women of childbearing age with one child. Inclusion criteria were as follows: ① married, female and aged between 20 and 49 years; ② had only one child; ③ working full-time for more than six months in urban areas; and ④ willing to participate. Women were excluded if they had severe physical diseases, mental disorders or cognitive impairment.

A three-stage method was used to identify eligible women. In the first stage, the 14 districts were divided into four regions (north, south, east and west areas) according to the geographic location. One district from each region was selected randomly using a random number generator. The maternal and child healthcare centres were chosen as the sampling units in the second stage. We selected one centre in each district. In the third stage, all the eligible women attending clinics in the centres were invited to participate in the present study.

### Sample size determination

The sample size was determined to establish the prevalence of the second childbirth intention, assuming the prevalence was 50.9% according to a previous study.[26] The formula by Fisher 1999 [$n = z^2 p(1-p)/e^2$] for a cross-sectional study was

applied, where n is the minimum sample score for a normal distribution (z = 2.68), p is the presumed prevalence of the intention of second childbirth (55%), (1-p) is the proportion of intentions to not have a second child and e is the margin of error (e = 0.05). Based on this formula, the minimum sample size was 711. In addition, a non-response rate of 20% was factored, which resulted in a sample size of 853. The study achieved a sample size of 703 and an 82.4% response rate. (46 women were excluded because they did not meet the inclusion criteria, and 104 women declined to complete the questionnaire.)

### Measurements

A self-administered questionnaire was developed to collect participants' information. The questionnaire was composed of two parts. The first part elicited background information and data on attitudes about having a second child. The second part assessed the fertility intentions of participants based on four items: the ideal number of children, the gender preference for children, the intention for a second child and the birth plan. The questionnaire was developed, pretested and modified based on the pretested results. The reliability of the scale of fertility intentions was computed using Cronbach's alpha coefficient and resulted in an alpha score of 0.831.

The dependent variable was the participant's fertility intention for another child, measured by the question, 'Do you intend to have another child in the future?', with three answers, 'Yes', 'Unsure' and 'No'.

The independent variables included socio-economic background factors and attitudes towards having another child. The socio-economic background factors included age, Hukou type (government certificate of legal residency), educational level, age at first childbirth, mode of delivery, family type, household income, age of the husband, educational level of the husband, age of the first child and gender of the first child. The attitudes towards having another child included whether parents and parents-in-law provided economic support; the attitudes of the husband, parents, parents-in-law and the first child towards having another child and the influence of friends.

### Data analysis

The data were checked for errors before double entry into a computer. SPSS, version 23.0, (SPSS Inc, Chicago, IL) was used for data analysis, and $\alpha < 0.05$ was considered significant. Descriptive statistics, a chi-square test and a logistic regression were applied to present the results. If the participants chose 0 or 2 or more answers for one item, the responses would be removed and counted as missing values. If more than 20% of the items had missing values, the questionnaire would be excluded as invalid.

## Results

### Sociodemographic characteristics

The average ages of the study participants and their partners were 36.53 ± 6.2 years (range: 22–49 years) and 39.0 ± 6.59

years (range: 22–59 years), respectively. Nearly half (42.6%) of the participants were younger than 35 years at the time of the study, and 85.9% had a non-rural Hukou. Almost 82.4% had completed junior college or received higher education. Approximately 69.7% of the respondents gave birth to their first child between 25 and 30 years of age. All demographic characteristics are presented in Table 1.

### Attitudes towards having another child

In this study, 31.3% of parents-in-law provided economic support, 40.7% of husbands supported second childbirth and approximately half of parents-in-law supported having another child (Table 2).

| Table 1 – Sociodemographic characteristics of study participants (n = 703). | | |
|---|---|---|
| Characteristics | n | % |
| Age of women (years) | | |
| Mean/SD (range) | 36.53 (6.23) | |
| < 31 | 159 | 22.6 |
| 31–35 | 144 | 20.5 |
| > 35 | 400 | 56.9 |
| Hukou | | |
| Rural | 99 | 14.1 |
| Non-rural | 604 | 85.9 |
| Highest education level | | |
| Less than high school | 124 | 17.6 |
| Junior college/college degree | 545 | 77.5 |
| Higher than Bachelor's degree | 34 | 4.9 |
| Age of the first childbirth (years) | | |
| < 25 | 186 | 26.5 |
| 25–30 | 490 | 69.7 |
| > 30 | 27 | 3.8 |
| Mode of delivery | | |
| Caesarean section | 307 | 43.7 |
| Vaginal delivery | 396 | 56.3 |
| Family type | | |
| One among the couple was the only child | 150 | 21.3 |
| Both members of a couple were the only child | 45 | 6.4 |
| Others | 508 | 72.3 |
| Household income | | |
| Low | 200 | 28.4 |
| Medium | 336 | 47.8 |
| High | 167 | 23.8 |
| Husband's age (years) | | |
| Mean/SD (range) | 39.0 (6.59) | |
| < 31 years | 98 | 13.9 |
| 31–35 years | 113 | 16.1 |
| > 35 years | 492 | 70.0 |
| Highest education level of husband | | |
| Less than high school | 129 | 18.3 |
| Junior college/college degree | 537 | 76.4 |
| Higher than Bachelor's degree | 37 | 5.3 |
| Age of the first child (years) | | |
| < 6 | 205 | 29.2 |
| 6–12 | 241 | 34.3 |
| > 13 | 257 | 36.5 |
| Gender of the first child | | |
| Male | 357 | 50.8 |
| Female | 346 | 49.2 |
| SD, standard deviation. | | |

*Overall fertility intention*

As Table 3 shows, our participants expressed that the ideal number of children for a family was 2.03 ± 0.35. The gender preference for children was one girl and one boy for most respondents (86.2%). Regarding fertility intentions, only 32.4% of participants wanted to have another child in the future, 24.6% were unsure and 43.0% did not want to have more children. In terms of time planning for a second child, the results showed that 60% of women who wanted to have a second child intended to do so within the next year (Table 3).

*Predicting intentions to have a second child*

Older respondents showed lower intentions to have a second child than younger respondents (P value = 0.000). Non-rural respondents were less likely to have intentions to have a second child than rural respondents (P value = 0.000). Family type was significantly associated with second-child intentions. Couples in which either the man or the woman (or both) was an only child showed higher intentions for a second child than other couples (P value = 0.000). Respondents who had older husbands showed lower intentions for a second child than those with younger husbands (P value = 0.000). Those whose husbands had higher education levels reported higher intentions to have no more children than those whose

**Table 3 − The overall intention for a second child among study participants (n = 703).**

| Characteristics | n | % |
|---|---|---|
| The number of ideal children | | |
| 1 | 28 | 4.0 |
| 2 | 633 | 90.0 |
| ≥3 | 42 | 6.0 |
| Gender preference of ideal children | | |
| 0 male and 1 female | 22 | 3.1 |
| 1 male and 1 female | 606 | 86.2 |
| 1 male and 2 female | 29 | 4.2 |
| Others | 46 | 6.5 |
| Intention for a second child | | |
| No | 302 | 43.0 |
| No idea | 173 | 24.6 |
| Yes | 228 | 32.4 |
| Time planning for second childbirth (years) | | |
| < 1 | 136 | 59.6 |
| 1−2 | 56 | 24.6 |
| 3−4 | 13 | 5.7 |
| Not clear | 23 | 10.1 |

husbands had lower education levels (P value = 0.020). The respondents showed higher intentions to have no more children as the age of the first child increased (P value = 0.000) (Table 4).

Respondents with economic support from parents-in-law seemed more likely to intend to have a second child (P value = 0.000). It was found that the attitude of family members regarding a second child was associated with second-child intentions. Respondents with friends who positively influenced them to have a second child reported higher intentions for a second child (P value = 0.000) (Table 5).

Variables that had significant correlations with second-child intentions by chi-square analysis were entered as independent variables in the binary logistic regression. According to Table 3, the majority of women intend to not have a second child; thus, we coded 1 as a response indicating 'not willing to have a second child' and 0 as a response indicating 'willing to or undecided' to determine the predictors of participants' intentions to not have another child. The results revealed that family type, age of the husband, age of the first child, economic support from parents-in-law, the attitude of the husband, the attitude of the parents-in-law and the influence of friends were predictors of intentions to not have a second child. The total test of the model coefficient was statistically significant ($\chi^2$ = 306.14, P < 0.05). Participants showed higher intentions to not have a second child with increasing age of both the spouse and the first child (odds ratio [OR] = 1.628 and 1.547, respectively). Participants whose parents-in-law provided economic support tended to be less likely to have intentions to not have another child (OR = 0.570) than those whose parents-in-law did not provide economic support. Those participants whose husbands and parents-in-law had supportive attitudes showed lower intentions to not have another child (OR = 0.399 and 0.561, respectively) than those who had no idea. Participants whose friends positively influenced them to have another child were less likely to intend to not have another child (OR = 0.145) (Table 6).

**Table 2 − Attitudes to having another child among study participants (n = 703).**

| Characteristics | n | % |
|---|---|---|
| Whether parents give economic support | | |
| Yes | 280 | 39.8 |
| No | 423 | 60.2 |
| Whether parents-in-law give economic support | | |
| Yes | 220 | 31.3 |
| No | 483 | 68.7 |
| Attitude of husband | | |
| Support | 286 | 40.7 |
| Non-support | 159 | 22.6 |
| No idea | 208 | 29.6 |
| Missing value | 50 | 7.1 |
| Attitude of parents | | |
| Support | 379 | 53.9 |
| Non-support | 62 | 8.8 |
| No idea | 208 | 29.6 |
| Missing value | 54 | 7.7 |
| Attitude of parents-in-law | | |
| Support | 350 | 49.8 |
| Non-support | 40 | 5.7 |
| No idea | 246 | 35.0 |
| Missing value | 67 | 9.5 |
| Attitude of the first child | | |
| Support | 269 | 38.3 |
| Non-support | 110 | 15.6 |
| No idea | 268 | 38.1 |
| Missing value | 56 | 8.0 |
| The influence of friends' condition | | |
| Positive | 180 | 25.6 |
| Negative | 44 | 6.3 |
| No influence | 400 | 56.9 |
| Missing value | 79 | 11.2 |

**Table 4 — Distribution of intention for a second child among study participants by sociodemographic variables (n = 703).**

| Variables | Intention for second childbirth (n, %) | | | $\chi^2$ (p) |
|---|---|---|---|---|
| | No | Unsure | Yes | |
| Age (years) | | | | |
| < 31 | 23 (14.5) | 57 (35.8) | 79 (51.6) | 101.49 (0.000)* |
| 31–35 | 45 (31.3) | 39 (27.1) | 60 (41.7) | |
| > 35 | 234 (58.5) | 77 (19.3) | 89 (22.2) | |
| Hukou | | | | |
| Rural | 24 (24.2) | 36 (36.4) | 39 (39.4) | 17.59 (0.000)* |
| Non-rural | 278 (46.0) | 137 (22.7) | 189 (31.3) | |
| Family type | | | | |
| One among the couple was the only child | 45 (30.0) | 48 (32.0) | 57 (38.0) | 20.85 (0.000)* |
| Both members of a couple were the only child | 13 (28.9) | 11 (24.4) | 21 (46.7) | |
| Others | 244 (48.0) | 114 (22.4) | 150 (29.5) | |
| Husband's age (years) | | | | |
| < 31 | 16 (16.3) | 36 (36.7) | 46 (46.9) | 74.66 (0.000)* |
| 31–35 | 23 (20.4) | 36 (31.9) | 54 (47.8) | |
| > 35 | 263 (53.5) | 101 (20.5) | 128 (26.0) | |
| Highest education level of the husband | | | | |
| Less than high school | 73 (56.6) | 26 (20.2) | 30 (23.2) | 13.27 (0.010)* |
| Junior college/college degree | 215 (40.0) | 135 (25.1) | 187 (34.8) | |
| Higher than Bachelor's degree | 14 (37.8) | 12 (32.4) | 11 (29.7) | |
| Age of the first child (years) | | | | |
| < 6 | 40 (19.5) | 66 (32.2) | 99 (48.3) | 118.20 (0.000)* |
| 6–12 | 87 (36.1) | 69 (28.6) | 85 (35.3) | |
| > 12 | 175 (68.1) | 38 (14.8) | 44 (17.1) | |

Note: Pearson $\chi^2$ was used to test the difference between different categories.
*P < 0.05.

**Table 5 — Distribution of intention for a second child by attitudes to having another children (n = 703).**

| Variables | Intention for second childbirth (n, %) | | | $\chi^2$(P) |
|---|---|---|---|---|
| | No | Unsure | Yes | |
| Whether the wife's parents give economic support | | | | |
| Yes | 104 (37.1) | 81 (28.9) | 95 (33.9) | 7.51 (0.023)* |
| No | 198 (46.8) | 92 (21.7) | 133 (31.4) | |
| Whether the husband's parents give economic support | | | | |
| Yes | 67 (30.5) | 69 (31.4) | 84 (38.2) | 20.86 (0.000)* |
| No | 235 (48.7) | 104 (21.5) | 144 (29.8) | |
| Attitude of the husband[a] | | | | |
| Support | 52 (18.2) | 65 (22.7) | 169 (59.1) | 175.77 (0.000)* |
| Non-support | 114 (71.7) | 30 (18.9) | 15 (9.4) | |
| No idea | 104 (50.0) | 64 (30.8) | 40 (19.2) | |
| Attitude of parents[a] | | | | |
| Support | 109 (28.8) | 86 (22.7) | 184 (48.5) | 97.18 (0.000)* |
| Non-support | 39 (62.9) | 17 (27.4) | 6 (9.7) | |
| No idea | 122 (58.7) | 57 (27.4) | 29 (13.9) | |
| Attitude of the parents-in-law[a] | | | | |
| Support | 91 (26.0) | 89 (25.4) | 170 (48.6) | 93.31 (0.000)* |
| Non-support | 29 (72.5) | 9 (22.5) | 2 (5.0) | |
| No idea | 141 (57.3) | 59 (24.0) | 46 (18.7) | |
| Attitude of the first child[a] | | | | |
| Support | 73 (27.1) | 54 (20.1) | 142 (52.8) | 94.43 (0.000)* |
| Non-support | 77 (70.0) | 20 (18.2) | 13 (11.8) | |
| No idea | 125 (46.6) | 79 (29.5) | 64 (23.9) | |
| The influence of friends' condition[a] | | | | |
| Positive | 20 (11.1) | 40 (22.2) | 120 (66.7) | 144.49 (0.000)* |
| Negative | 26 (59.1) | 12 (27.3) | 6 (13.6) | |
| No influence | 216 (54.0) | 103 (25.8) | 81 (20.3) | |

Note: Pearson $\chi^2$ was used.
*P < 0.05.
[a] Represent missing value.

**Table 6 – Binary logistic regression analysis of factors influencing second-child intention.**

| Variable | OR | 95% CI | P |
|---|---|---|---|
| Family type | | | 0.025 |
| One among the couple from one-child families | 0.63 | 0.33–1.17 | 0.142 |
| One-child couples | 0.75 | 0.35–0.99 | 0.049 |
| Others | 1.00 (Reference) | | |
| Husband's age | 1.63 | 1.19–2.23 | 0.002 |
| Age of the first child | 1.55 | 1.05–2.27 | 0.026 |
| Whether the parents-in-law give economic support | | | |
| Yes | 0.57 | 0.34–0.97 | 0.037 |
| No | 1.00 (Reference) | | |
| The attitude of the husband to second child | | | 0.000 |
| Support | 0.40 | 0.23–0.69 | 0.001 |
| Non-support | 3.88 | 2.10–7.14 | 0.000 |
| No idea | 1.000 (Reference) | | |
| The attitude of parents-in-law to a second child | | | 0.008 |
| Support | 0.56 | 0.34–0.92 | 0.022 |
| Non-support | 2.35 | 0.78–7.08 | 0.130 |
| No idea | 1.00 (Reference) | | |
| The influence of friends' condition | | | 0.000 |
| Positive | 0.15 | 0.08–0.27 | 0.000 |
| Negative | 1.33 | 0.58–3.06 | 0.509 |
| No influence | 1.00 (Reference) | | |

OR, odds ratio; CI, confidence interval.

## Discussion

Our findings revealed low fertility intentions among urban working women with one child after the implementation of China's universal two-child policy and were consistent with those of the previous research in China and elsewhere, indicating that low fertility rates are a worldwide concern.[27] It also showed that fertility intentions among the target population in our survey (32.4%) were lower than those among the general population (50.9%, women of childbearing age) in a 2005 study in China.[26]

Low fertility intentions among our target population could have been influenced by some of the participants' characteristics. Compared with women in the general population, working urban women have higher levels of education and larger incomes and share the responsibility for the family's economic well-being with their husbands, which could partly account for their low fertility intentions.[17] Most urban women could also attain financial and personal independence, and there is increased availability of improved medical insurance and community services for urban women in urban areas, thus making it possible to decrease their reliance on children for their security in old age.[4]

More than half (56.9%) of the women in our sample were older than 35 years, which is an age on the higher end of what is perceived as an appropriate time to have children. We observed that most (69.7%) women in this study had their first

child between 25 and 30 years of age. These results seem to suggest that delaying childbearing because of educational or career pursuits among highly educated women may be an important reason for hesitating to have another child because of their older age and increased risks for a second birth. Therefore, it is especially important to provide information to raise awareness of fertility for better birth timing and increasing the number of births. In addition, almost half of our sample delivered their first child via caesarean section, thus increasing the risks for complications, such as uterine rupture, weak contractions and postpartum haemorrhage during subsequent childbirths.[28] A previous study indicated that the average caesarean section rate in China was approximately 41.1% in 2016, which was similar to our study.[29] It has been demonstrated that the lack of confidence, fear of pain and the desire to select the time of birth were important factors associated with women's preference for caesarean section.[30] High caesarean section rates, especially unnecessary caesarean section cases, might be a potential risk factor for delaying or forgoing having a second child in China. A standard and convenient specification for a prenatal education curriculum provided by hospitals and their doctors was suggested to be appropriate in China.[31] Effective measurements should be used and promoted to improve women's satisfaction and confidence with childbirth and to reduce the fear of vaginal birth so that unnecessary caesarean section will be avoided.

The relatively older age of our sample could also involve the participants' increased rationality in weighing the pros and cons of having a second child. Energy and fecundity decline with age might partly account for lower fertility intentions among older respondents.[32]

Life experience could also play an important role in decisions regarding childbearing. Couples with no/or few siblings tend to have more children, in part because they lack the experience of having brothers or sisters during childhood; thus, they do not want their own children to experience a similar lack. 'Giving my child a playmate' was found to be the main reason for having a second child, according to the data from women with one child.[33]

Our findings highlighted the importance of social networks and support in deciding to have children.[34] In our study, we found that fertility intentions were based on not solely individual decisions but also the outcomes of personal and social networks. Fertility-related social capital (financial support, positive attitudes) among husbands, the first child and parents-in-law significantly influenced a working woman's intention to have a second child. This finding was in line with results from similar studies in Germany and Korea.[35,36] When all family members agree on a fertility decision, the probability of having a second child increases. Our findings suggested that the attitudes of parents-in-law exert a greater influence on having a second child than the attitudes of the women's own parents, which reflected Chinese tradition of the parents-in-law undertaking more obligations for the care of grandchildren.[37] Previous studies confirmed the positive effect of grandparental help in childcare on the likelihood of second children.[38,39] Other effects on a woman's decision to have a second child were associated with previous child-rearing experiences among friends and peers which is consistent with our study.[40]

Overall, our findings highlighted the importance of providing support to urban working women in designing and implementing pronatalist measures to raise China's fertility rates. Ishida et al.[41] indicated that the implementation of comprehensive childcare support policies could increase fertility by facilitating the balance between work and child-rearing in Japan. In addition, for highly educated women in low-fertility countries such as Europe, childcare coverage was strongly positively related to completed fertility at the individual level. Studies have also confirmed that traditional child-rearing activities need to be outsourced as women attain higher levels of education and that the provision of public care institutions for young children can increase fertility.[42] Lee et al.[43] indicted that family policies (e.g., quantity and quality of childcare services for very young children, gender equality in parental leave policies) increased fertility intentions for working women when comparing Sweden with Korea.

This survey has several limitations that should be highlighted. First, this study included only 703 women so that the results might not be comprehensive. Future studies should include multicentre and large sample investigation. However, the sample size in our study meets basic statistical requirements and was able to detect modest effect sizes as significant which can represent the group of urban working women with one child in a manner. Second, because the study site was healthcare centres and the majority of our respondents were highly educated, selection bias might have occurred. However, health centres were in charge of several communities for health promotion; thus, the sample was representative to some degree. In addition, the cross-sectional study provides valuable preliminary insights into fertility intention among urban working women with one child but did not allow the determination of causal relationships. Further studies are needed, including longitudinal studies investigating how fertility intentions change through time and how sociodemographic and attitude variables may mediate such changes and the relationship between decision-making and actual behaviour.

In conclusion, the overall intentions for a second child among urban working women with one child are low in Hunan Province, China, under the universal two-child policy. Fertility intentions for a second child are not affected by policies only; other factors also play an important role. Supplementary measures are urgently needed to create a favourable environment for childbearing in China.

## Author statements

### Competing interests

There is no conflict of interest.

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