# Fertility Desire of Chinese Parents to Have More Children Under the Three-Child Policy

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#### **Abstract**

On May 31, 2021, the Chinese government announced the three-child policy. However, unlike the prophase investigation, the policy to encourage more children did not significantly impact couples' desires to have more children. Fertility desire represents a person's childbearing wishes when all potential obstacles are disregarded. The fertility desire of Chinese parents for a second or third child should be more specifically known. This qualitative research was used with a content analysis approach based on in-depth and semi-structured interviews with 40 parents and predesigned questions according to the Traits-Desires-Intentions-Behavior (T-D-I-B) framework. Fertility desire of participants to have more children covered three themes: the attraction of multiple offspring to the fertility desire, the desire to have more children but dare not have, and the encouragement of the desire to give birth to more children. Based on these, the supportive encouragement measures of the three-child policy need to be considered. Specifically, incentive measures are adopted regarding the cost of living, investment in education, public welfare and services, and social stereotypes of parental roles to promote more parents' desire to have more children. From a parental view, the three-child policy lacks practical support measures, which should be an obstacle to fertility.

# **Keywords**

Chinese three-child policy; fertility desire; incentive measures; qualitative study

## Introduction

China's family planning policy has been constantly adjusted to reflect the changes in the Chinese population structure. The family planning policy implemented over 30 years ago ended on January 1, 2016. Family planning was one of the basic state policies of the People's Republic of China. Family planning in accordance with the population policy was established as the basic state policy in 1982 and written into the Constitution in the same year (Fan, 2017). The main content and purpose of the family planning policy were to advocate late marriage and late childbearing, fewer and healthier births, and one couple having only one child to control the population in a planned way. Since its formulation, family planning as a basic state policy has played a positive role in China's population and development problems. However, it has also brought about the aging of the population. According to statistics, the Chinese working-age population decreased in 2012 by 3.45 million compared with the previous year (Qiao, 2015). In response, the Chinese government enacted the two-child policy the following year. The universal two-child policy was officially implemented on January 1, 2016, which means the two-child policy was implemented nationwide, and the family planning policy formally became history (Liu et al., 2022).

According to the 2020 Seventh National Population Census, based on data from approximately 7 million households, about 12 million babies were born last year. This figure marked a steep decline from the 18 million babies born in 2016, during which the country experienced a brief baby boom following the first change in policy the previous year, with birth rates climbing by 7.9%. This increase was followed by four consecutive years of decline (Tatum, 2021). The latest indications of continued fertility decline were quickly followed by a further policy change: now to a three-child policy. The new three-child fertility policy was formally promulgated in the document titled "Decision of the Central Committee of the Communist Party of China and the State Council on Optimizing Fertility Policy and Promoting Long-term Balanced Population Development," dated June 26, 2021 (Ministry of Education of the People's Republic of China, 2021).

The fertility desire shifted from the passive role of policy restrictions to the active role of parental voluntary fertility desires. A family is now allowed to have three children in China. When all potential obstacles are disregarded, fertility desire represents a person's wish to have children (Miller, 2011). It seems familiar to estimate desired fertility using the ideal family size or the ideal number of children (Chen & Yip, 2017). Therefore, measuring fertility desire and determining the extent to which it predicts fertility behavior is also crucial for population policy and the implementation of family planning programs (Hayford & Agadjanian, 2012). According to a study based on a sample of 4,510 parents in the Chinese capital Beijing, the degree of second-child fertility desire was relatively high among parents from an ideal perspective. However, there was a large gap between ideal and realistic perspectives, with all the parents exhibiting lower tendencies relating to their fertility intentions and planning (Zhu & Hong, 2021). Another quantitative study conducted in Gansu Province, China, with a sample of 150 participants, found that 22 participants were "very willing" (14.7%), and 64 were "willing" (42.7%) to have a second child (Zhang & Zheng, 2021). The State News Agency Xinhua polled 31,000 people and discovered that only 1,443 were "ready" to have a third child. It was "on the agenda" for 213 respondents, 828 were "hesitant," and the remaining more than 20,000 said they would never consider having a third child (Mullen, 2021). Consequently, there is a gap between the expected positive impact of the fertility policy and the current situation of China's fertility, including fertility desires, intentions, and behaviors.

# Literature review

Fertility desire and fertility intention are two different concepts. Couples express their childbearing wishes and emotional feelings without any commitment to act. In the demographic literature, fertility intentions reflect individuals' plans over the entire reproductive span, and fertility intentions are considered goal-related actions, the most proximate determinant of childbearing behavior (Testa, 2012). Intentions to have children as personal propensities to react favorably or unfavorably to certain facets of childbearing. Individual assessments of the perceived advantages and disadvantages of childbirth play a crucial role in determining whether or not a person decides to have children (Mynarska & Rytel, 2020). However, desires represent what the individual wishes for themselves. They are wishes, and as such, they rarely result in immediate action. Instead, they are first translated into intentions, which are conscious commitments to act in a specific way or attempt to achieve a particular goal later (Miller & Pasta, 1995). Compared to fertility desire, fertility intention emphasizes action ability, commitment, and planning and is more constrained by a person's socioeconomic circumstances (Chen & Yip, 2017).

According to the Traits-Desires-Intentions-Behavior (T-D-I-B) framework, motivational traits can be divided into positive and negative motivations (Miller & Pasta, 1995). Three types of desire are particularly relevant to fertility: the desire for a child or another child if one is already present (childbearing desires), the desire for a specific number of children (childnumber desires), and the desire for a child at a particular time in the future (child-number desires) (child-timing desires) (Miller, 2011; Miller & Pasta, 1995). Therefore, desires can be divided into three components: childbearing, child-number, and child-timing desires, and intentions can be divided into three components: childbearing, child-number, and childtiming intentions, and behavior into proceptive and contraceptive behavior (Miller, 1994, 2011). The basic idea of the framework is that the motivational forces driving individuals' and couples' fertility-related behaviors unfold in a sequential process that begins with unconscious motivational dispositions (traits) to have or not have children (Miller, 2011). Specifically, the more children someone desires or intends to have and the stronger one's childbearing desires or intentions are, the sooner one desires or intends to have (another) child (Hashemzadeh et al., 2021). Therefore, fertility desire remains a significant predictor of the actual fertility rate. It is an indicator that should be actively encouraged in the context of declining fertility rates and the profound social problem of an aging population.

The ecological systems theory, developed by psychologist Urie Bronfenbrenner, explains how different environmental systems influence human desires, intentions, and behaviors (Ettekal & Mahoney, 2017). According to the ecological systems theory, many factors affect people's childbearing desires, child-number desires, and child-timing desires, which can be classified as macro-level, meso-level, and micro-level (Bronfenbrenner, 1992). As a social reality at the macro-level, fertility desire is influenced by environmental, social, political, and cultural factors (e.g., improvements in educational accessibility, the high economic cost of children, adverse economic conditions, job and economic insecurity) (Moeini et al., 2021). The meso-level encompasses social relationships and social networks (i.e., characteristics pertaining to the network of friends, coworkers, and relatives) (Balbo et al., 2013). On a more specific micro level, fertility desire is affected by individuals' thoughts, attitudes, motivations, and beliefs (Li, 2021). Recently, fertility desire decline has become common in developing countries as the wealth gap between rich and poor widens, and the rapid social transition increases people's daily stress (Klasen, 2019).

According to the demographic transition theory, societies transition from pre-modern regimes with high fertility and high mortality to post-modern regimes with low fertility and high mortality (Kirk, 1996). Additionally, the low-fertility trap hypothesis highlights potential self-reinforcing mechanisms that, if left uncontrolled, would result in a continual decline in births in the concerned countries. This hypothesis has three parts: a demographic one based on the negative population growth trend, which assumes that fewer women will result in fewer births in the future; a sociological one based on the supposition that younger cohorts' ideal family sizes are declining as a result of the lower actual fertility they observe in older cohorts; and an economic one based on the part of the relative income hypothesis that assumes that fertility results from the combination of aspirations and expected income (Lutz et al., 2006). As a result, it is not difficult to understand the decline in fertility desire in China, which is rapidly modernizing. Factors at various levels influence couples' fertility desires, intentions, and behaviors. In the context of China's three-child policy, the government actively encourages Chinese couples to have more children, making it especially important and urgent to understand Chinese couples' fertility desires.

Since the Chinese government fully implemented the two-child policy in 2016 and the three-child policy in 2021, the number of studies on second and third children has increased dramatically, focusing on population change, fertility policy analysis, and fertility desire surveys (Zhu & Hong, 2021). These studies mainly examine the relationship between family income and the number of children, the differences in family fertility desire and intention in different family structures, the validation of the hypothesis factors of low fertility intention, and the relationship between the gendered division of domestic work and the willingness to have more children (Cao et al., 2009; Yang, 2017; Zhu & Hong, 2021). However, the perspectives of Chinese parents are rarely heard in these studies. According to research, highly educated and well-off parents are less likely to have a second or third child (Li, 2021). Still, it is difficult to hear these parents' genuine and specific explanations. As such, few researchers used qualitative research methods to examine Chinese parents' fertility desires under the three-child policy and the underlying factors influencing fertility desires.

## Method

#### **Ethical consideration**

The University of Malaya Research Ethics Committee approved the ethical application, including the recruitment and data collection procedures for this study (Reference No.: UM.TNC2UMREC-1848). Before engaging in the study, the participants were requested to complete an informed consent form, which included permission to record the interviews.

# Research design

The purpose of this study was to understand that, under the three-child policy, childbearing desires, child-number desires, and child-timing desires of Chinese couples and how fertility desires were discouraged and encouraged. The questions in this study cannot be answered simply and directly. People were required to explain their answers, give examples, or describe their experiences, which required the help of the research instrument in-depth interview (Rubin & Rubin, 2011). And a semi-structured interview with a predesigned interview protocol was selected as this qualitative research instrument to collect data, as an interview

protocol can serve as a guideline for the whole semi-structured interview process. The interview protocol guided the interviewers in preparing and planning the questions. The interview protocol of this study included how to start the interview, guidance for the interview process, hints for critical questions, and ways to end the interview.

## Study area

Sichuan province was selected as the study area because of its large population base, lack of ethnic minority autonomous regions, and full compliance with national population policy implementation. Sichuan province's birth rate and natural population growth rate were lower than the national rate of about 2‰ for many years (Chen, 2021; Rongcheng Government Affairs, 2021). In addition, according to international standards, a country or region is entering into an aging society when the population aged 65 and above accounts for more than 7% of the total population (United Nations, 1956). According to data from the seventh Chinese population census, in 2020, the proportion of the population aged 65 and above in Sichuan province was 16.93% of the permanent population, indicating that Sichuan has entered a deep aging society (Chen, 2021). In a province with a rapidly aging population, it is critical to actively promote fertility in this area.

## **Participants**

The current study used purposeful sampling because the data sources, participants, and cases of purposeful sampling were better able to answer the research questions (Patton, 1987). The criteria for selecting participants in this study were couples with one child or two children living in the Sichuan province of China, and both spouses were willing to participate in the study. A total of 20 couples (20 husbands and 20 wives) were interviewed in this study, and based on the estimate of the number of samples, the researchers may also continue to look for participants until the data collecting reaches a certain degree of saturation (Lincoln & Guba, 1985). Content saturation was achieved by the thirtieth interview, and the interviewer also conducted ten additional interviews with five couples to ensure high data validation.

Interviews recorded between February and May 2022 were used to collect data. The interviews were conducted at the request of the participants in a separate room at their residence or the rest of the nearby community. At the beginning of the interviews, we explained the purpose of the study and the length of the interviews. Prior to conducting the interviews, participants were given a detailed explanation of the study's procedure. Following determining the participants' demographic details, we asked six structured questions about the parents' fertility desire to have more children.

The demographic characteristic information of 40 interviewees based on the selection conditions is shown in Table 1. The ages of the interviewees were concentrated between 31–35 years old; thirty-two respondents, or 80%, were an only child; most of the participants had a median monthly household income; 67% of participants were employed full-time; marriage duration statistics showed that 16 people were married for 0–5 years, accounting for up to 40%; half of the participants had one child, and the other half had two children.

**Table 1**: Demographic Characteristics of Interviewees

Demographic Information	Categories	N (Percent)
Age	22–30	9 (23%)
	31–35	18 (45%)
	36-40	6 (15%)
	41–45	5 (12%)
	46–49	2 (5%)
Gender	Female	20 (50%)
	Male	20 (50%)
Siblings	An only child	32 (80%)
	With siblings	8 (20%)
Qualification	High school diploma	9 (23%)
	Associate degree	7 (17%)
	Bachelor's degree	11 (27%)
	Master's degree	9 (23%)
	Doctorate	4 (10%)
Family Income	low monthly household income (< 8,000 CNY)	10 (25%)
	median monthly household income (8,000-20,000 CNY)	24 (60%)
	high monthly household income (> 20,000 CNY)	6 (15%)
Job Status	Full-time	27 (67%)
	Part-time	6 (15%)
	Unemployed	7 (18%)
Duration of marriage	0–5	16 (40%)
_	6–10	10 (25%)
	11–15	10 (25%)
	16–20	4 (10%)
Duration of residence	0–5	20 (50%)
	6–10	8 (20%)
	11–20	12 (30%)
	More than 20	0
Number of Children	1	20 (50%)
	2	20 (50%)

Note: Average exchange rate at the time of data collection was 6.74 CNY = 1 USD (Exchange Rates UK, 2023)

#### Data collection

The wives and husbands of the 20 couples were interviewed separately to avoid information interference. In addition, three interviews were conducted in the presence of both husband and wife to collect more details from their discussion. The purpose of this study was to understand the fertility desire of Chinese couples under the three-child policy. According to the T-D-I-B model, fertility desire included childbearing desires, child-number desires, and child-timing desires (Miller, 1994). Therefore, the following questions were designed around the purpose of the study.

- 1. In your opinion, what impact does the increase or decrease in fertility rate have on the country?
- 2. Do you desire to have another/a third child? Why? (According to the childbearing reality of the family).
- 3. When would you like to have your second/third child? (According to the answer of child-number desires).
- 4. From your view, what are the factors affecting the number of children in a family?

- 5. What are the influential factors affecting your decision not to have a second/third child? (The question is asked from couples with no more childbearing desires). What are the influential factors affecting your desire to have a second/third child? (The question is asked from couples with second/third childbearing desires).
- 6. Do you have anything to say about the three-child policy in China?

Each participant was interviewed for between 40 and 57 minutes, using the participants' local language (the Sichuan dialect of China). Respondents were free to discuss whatever they wanted after the interview that had not already been covered. Then, each interview is recorded and wholly transcribed. Finally, the recorded conversation and the recorded transcriptions are compared.

## Data analysis

Qualitative approaches are incredibly diverse, and thematic analysis should be considered a foundational method for qualitative analysis (Braun & Clarke, 2006). Thematic analyses seek to unearth the themes salient in a text at different levels, and thematic networks aim to facilitate the structuring and depict these themes (Attride-Stirling, 2001). The different phases are summarized as familiarizing yourself with your data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006). Firstly, labeling concepts and creating categories and themes based on characteristics and dimensions of data are all included in open coding (Khandkar, 2009). Each interview question was analyzed individually as part of the study using open coding. We compared thematic responses and quoted portions of the most compelling ones. Emergent themes representing the respondents' fertility desires for childbearing, child number, and child timing, as well as the underlying factors impacting fertility desires, were produced by open and axial coding (Terry et al., 2017). Moreover, analysis is not a linear process of simply moving from one phase to the next. Instead, it is a more recursive process, where movement is back and forth as needed throughout the phases (Braun & Clarke, 2012).

# Validity and reliability

Triangulation is generally a technique for enhancing the reliability and validity of qualitative research or assessing results (Golafshani, 2003). To improve the validity and reliability of a study, data triangulation includes utilizing many sources of data. In this study, 20 families with various backgrounds were employed as information sources for data collection. To ensure the accuracy of the information and narrative accounts, we used member checking and cooperation to return the data and interpretations to the participants. Participants offered corrections for the transcribed data and code interpretation to more accurately and adequately portray the parental desires for birth. The consistency of the transcoding was tested by repeatedly encoding the same material at various intervals.

## Results

Through the coding process, the fertility desire and influence factors result from eleven statements, namely to eliminate loneliness of only child and a sense of self-actualization of parenting (open coding), which forms the Childbearing desire code (axial coding), to share the responsibility of supporting older persons and yearning for the lively atmosphere of a big family (open coding) form a Child-number desire code (axial coding), childbirth experience and physical condition of the mother, reducing the cost of rearing and education, improving the public welfare and service system, and changing perceptions of father and mother roles (open coding) form a Child-timing desire code (axial coding), as well as the high cost of living and education, unsound public service system, and wrong definition of parental roles (open coding) form an Influence factors code (axial coding). The four statements on the axial coding are summarized as fertility desire and factors impacting fertility desire in selective coding processes, as indicated in Table 2.

Table 2: Thematic Analysis Process for Parental Fertility Desire

Open Coding	<b>Axial Coding</b>	Selective Coding	
To eliminate the loneliness of an only child;	Childbearing desire	Fertility desire	
A sense of self-actualization in parenting			
To share the responsibility of supporting older persons; Yearning for the lively atmosphere of a big family	Child-number desire		
Childbirth experience and physical condition of the mother;	Child-timing desire		
Reducing the cost of rearing and education;			
Improving the public welfare and service system;			
Changing perceptions of father and mother roles			
The high cost of living and education;	Influence factors	Factors impacting	
Unsound public service system;		fertility desire	
Wrong definition of parental roles			

The themes were extracted from the codes, including the attraction of multiple offspring to the fertility desire, the desire to have more children but dared not have, and encouragement of the desire to give birth to more children. Direct quotations were used to provide an accurate and coherent picture of participants' views and to allow readers to easily analyze and interpret the findings (Yıldırım, 2021). Table 3 presents detailed code quotes, sub-themes, and themes.

 Table 3: Themes, Categories, and Codes Quotes Regarding Fertility Desire

Theme	categories	Examples of Code
The attraction of multiple offspring to	<ul> <li>To eliminate loneliness of an only child;</li> </ul>	<ul> <li>I am an only child, and some ideas were not convenient to talk about with my parents, and if there were sisters, I would not keep some ideas only in my heart.</li> </ul>
the fertility desire	<ul> <li>To share the responsibility of supporting older persons;</li> </ul>	<ul> <li>Parents will get old someday. If there is only one child, the child may take care of two sick old parents and their own family.</li> </ul>
	<ul> <li>Yearning for the lively atmosphere of a big family;</li> </ul>	<ul> <li>During the Spring Festival, my neighbors had many relatives to celebrate together, while my family only had my parents and me.</li> </ul>
	<ul> <li>A sense of self-actualization in parenting.</li> </ul>	<ul> <li>- I think my children will grow up to be successful, excellent, and hardworking, and I'll be proud of that when I'm old.</li> </ul>
The desire to have more children but dare not have	<ul> <li>Childbirth experience and physical condition of the mother;</li> </ul>	<ul> <li>A painful pregnancy or childbirth experience: I threw up for five months.</li> <li>Physical and mental changes after birth: When I got up in the middle of the night, I felt that I could not see hope in the dark.</li> </ul>
		- Age and physical condition of mother: women over 35 may be at risk during childbirth.
	<ul> <li>The high cost of living and education;</li> </ul>	<ul> <li>Exorbitant house prices: Burdened with high loans, but can only be bought a two-bedroom house. If one more kid, they can't even get his own room.</li> <li>Pressure from job competition: I dared not take weekends off, hoping the director would come to the office after hours and see me working overtime.</li> <li>The high cost of education: High-quality education resources are still in the wealthy class.</li> </ul>
	<ul> <li>Unsound public service system;</li> </ul>	<ul> <li>An unsound medical system: The baby was born with a discolored face due to lack of oxygen, and the neonatologist was called for several minutes to arrive.</li> <li>A lack of support for raising infants and toddlers: Both of our parents were in poor health, and they were far away in the countryside.</li> <li>Conflict of generation-skipping education concept: Grandparent care was a nightmare, I came home from work, and my baby fell asleep with a bottle instead of brushing their teeth.</li> <li>Pressure to support older persons: My parents are old and in poor health. And some medicines are not covered by the national account.</li> <li>Low involvement of fathers: Her father spends no more than two hours a week with her.</li> </ul>
	<ul> <li>Wrong definition of parental roles.</li> </ul>	<ul> <li>Social status bias of stay-at-home mothers: People often asked me, aren't you afraid that you are disconnected from society and worthless to friends?</li> </ul>

Theme	categories	Examples of Code
The encouragement - Reduci		<ul> <li>Financial incentives: If every child received monthly financial support from the government, it would reduce the great financial burden on families.</li> <li>Controlling the excessive growth of housing prices: Houses are for living in, and people buying and selling houses to bid high prices should be limited.</li> <li>Reducing the cost of education: Schools are expensive, and learning English is more expensive, but you have to do it because others are learning.</li> </ul>
	<ul> <li>Improving the public welfare and service system;</li> </ul>	<ul> <li>Establishing a public childcare service system: Public childcare centers have not been established in my city, and there is no public guidance for children.</li> <li>Establishing a public pension service system: Two only-child people get married, and then the couple has to take care of three children and four older people.</li> <li>Improving fertility care service system: I didn't feed my baby right after birth. There was no professional medical staff to guide me.</li> <li>Improving places and facilities for mothers and infants: There are only three nursery rooms in a mall – no private place to breastfeed babies.</li> <li>Promoting of work welfare for parents: I really wish maternity leave and breastfeeding leave were longer, and fathers could get away on weekends.</li> </ul>
	<ul> <li>Changing perceptions of father and mother roles.</li> </ul>	<ul> <li>The mass media should publish more reports of fathers accompanying their children. And more publicity hard work of stay-at-home mothers.</li> </ul>

## The attraction of multiple offspring to the fertility desire

More than half of the 40 parents polled expressed that the Chinese three-child policy is appealing. Compared to a child who is the only child under the one-child policy, a child with siblings feels less lonely and shares the responsibility of caring for their older parents. From the parental point of view, families with more children are livelier, and parents feel a sense of parenting accomplishment when their children grow up to be successful. A survey of 421 participants found that the one-child policy in China produced significantly less trusting, less trustworthy, more risk-averse, less competitive, more pessimistic, and less conscientious individuals (Cameron et al., 2013). Moreover, the one-child policy seriously affected the population structure, resulting in a low fertility rate and severe aging problems. From a social and family perspective, the announcement of the three-child policy was a great advantage.

#### To eliminate the loneliness of an only child

Loneliness is a universal emotional experience of human beings. It refers to an individual's feelings about the quantity and quality of social contacts. Under the one-child policy in China, the only child feels lonely in many situations, and this loneliness stays with the child growing up, even until they start their own family (Shen & Ma, 2010).

Your parents may get old, and your marriage may be betrayed, but the bond with your brothers and sisters is strong. Even after your parents get old, the world will still be surrounded by your blood relatives.

(39-year-old, father, no siblings, master's degree, full-time job, two children)

## To Share the responsibility of supporting the older persons

In 1984, the World Bank Economic Mission predicted in a report that China would face significant difficulties in supporting parents due to the one-child policy (Wu & Wang, 2021). Presently, the parents of Chinese first-generation only child are gradually entering old age, and in the following decades, many parents of the only child will be entering old age. The only child has the responsibility of supporting two older people, at the same time, taking care of their work and family. In addition, it is very common for an only child to study or work in other cities in a highly competitive society. As the only child grows up and leaves home, more parents enter the emptynest period. Because of these characteristics, families with an only child have more risks and difficulties providing for the aged than many children.

My husband and I are both the only child in our families. We are a full-time working family with two children. Our parents are over 60 years old. One of them is in poor health and often needs to go to the hospital. When this happened, I felt very upset, sometimes, I had to ask for leave from my work, and the study and life of children were neglected.

(37-year-old, mother, no siblings, associate degree, full-time job, two children)

#### Yearning for the lively atmosphere of a big family

The family is the most primitive and fundamental unit of individual development and a dynamic system formed by parents and children. A simple and complex family atmosphere created by this dynamic relationship can obviously or imperceptibly affect individuals. The nuclear family of an only child comprises parents and one child. Parents who participated in the interview said large, lively families with multiple children are desirable, especially during holiday celebrations.

During the Spring Festival, children beg for red envelopes, candy, and new year's gifts. It is really a lively festive atmosphere, but we have only one child in our family, and they can't make a lively scene by themselves.

(28-year-old, mother, no siblings, associate degree, part-time job, one child)

#### A sense of self-actualization in parenting

Maslow's hierarchy of needs is a motivational theory in psychology comprising a five-tier model of human needs. Needs lower in the hierarchy must be satisfied before individuals can attend to higher needs. From the bottom of the hierarchy upward, the requirements are physiological, safety, love and belonging, esteem, and self-actualization (Mcleod, 2007). Partner acquisition, parenting, utilizing, and developing talents and abilities, and goal pursuit are all examples of self-actualization needs. Namely, raising children is one of the most basic human needs and a self-actualization necessity at the highest level. If the child grows up to be a successful and outstanding person, then it is a self-actualization of the parents and an attraction to have more children.

I'm a stay-at-home mom, and spending time with my kids is my career. I need to learn the knowledge of parenting, arrange their study, life, and entertainment, and develop their hobbies. If they succeed in the future, I will be proud of them.

(36-year-old, mother, no siblings, bachelor's degree, Unemployed, two children)

#### The desire to have more children but dare not have

When describing their low desire to have a second or third child and the conditions required to have more children, the participants gave various answers about the obstacles to having a second or third child. The responses were grouped into four categories: childbirth experience and physical condition of the mother, the high cost of living and education, unsound public service system, and wrong definition of parental roles.

#### Childbirth experience and physical condition of the mother

The mothers responded that painful experiences during pregnancy, childbirth, and postpartum are barriers to their desire to have their second and third children. Of course, whether their current age and physical condition are suitable for fertility are also a premise to be considered.

Fathers expressed that their wives had dystocia experiences that made them afraid and didn't want to experience it again. The pain is spiritual and psychological damage. For mothers, severe morning sickness, gestational hypertension, swollen limbs, dystocia, wound infection after a cesarean section, and other conditions made them feel extremely uncomfortable, so they were unwilling to get pregnant and give birth again, which is a kind of psychological avoidance from physical pain.

I couldn't move in the delivery bed. The doctors and nurses were busy and on the phone, trying to find the neonatologist. I couldn't speak, and I couldn't stop crying. Thankfully, the child was eventually saved. But I really don't want to go through that again.

(31-year-old, mother, no sibling, master's degree, full-time job, one child)

Moreover, being out of shape and postpartum depression are the most significant physical and emotional problems for women after giving birth, which has become the barrier to rebirth mentioned by female interviewees.

I clawed my hair madly as I got up in the dark to feed my baby. After the child was born, the weight was still 15 kg heavier than before; the obesity, lack of sleep, lack of breast milk, and neonatal jaundice really made me crazy.

(35-year-old, mother, one sibling, bachelor's degree, full-time job, one child)

Advanced maternal age is broadly defined as women who give birth at an older age, but many different definitions exist. In China, women who become pregnant for the first time over the age of 35 are called advanced maternal age (Xiang et al., 2021). Advanced maternal age has been linked to adverse side effects of pregnancy, such as an increased risk of infertility in women and an increased risk of chromosomal abnormalities in children (Leridon, 2004). According to the seventh national census, the average age at which Chinese women give birth to their first child is 29.13 (Rongcheng Government Affairs, 2021). As a result, each participant mentioned the mother's reproductive age and physical fitness to conceive again as the primary constraints for parents considering a second or third child.

My wife is in their late 40s, and to be honest, if we have another child, my biggest concern is whether their body will be able to withstand it and whether the birth process will be dangerous for the baby and mother.

(43-year-old, father, no siblings, master's degree, full-time job, one child)

#### The high cost of living and education

The high cost of living and education has put a lot of pressure on having and raising children, with respondents saying the high mortgage and monthly education costs have forced them to work hard. They constantly compete for higher positions and salaries to pay for a higher quality of living and education costs. They become more hardworking and competitive in their work and

finally seem unable to balance work and life. It is like a vicious circle. The researcher learned from the interview that 16 couples must repay their housing loans monthly, that the couples with the most prolonged loans had to repay the mortgages for 30 years, and that the most prominent loans were more than CNY 10,000 (USD 1,475) per month. Previous research found that the rate at which urban housing prices rise significantly negatively affects fertility rates: the faster housing prices rise, the quicker fertility rates fall (Fang et al., 2021).

Additionally, working mothers are juggling the pressures of parenting and work. In a study about stereotypes of stay-at-home and working mothers, the stereotypes that clustered together based on primary loadings onto the final five components appear to comprise five descriptive profiles of working mothers, which were labeled these clusters as follows: overworked with no free time; determined and hardworking; flexible and family-oriented; supermom and nontraditional helicopter parent (Odenweller & Rittenour, 2017). Furthermore, fathers are also under competitive pressure from social transformation and economic development, resulting in a problematic work-life balance and low involvement in child care.

I didn't even go to the hospital with my wife when my second child was born. My mother was with my wife during our baby's birth. I was being offered a promotion at that time, and I would never have been promoted again in my life if I hadn't taken it as hard as I could.

(47-year-old, father, no sibling, associate degree, full-time job, two children)

Every participant mentioned the high cost of education as one of the constraints on fertility desire of the family to have more children. China is in rapid economic and social transformation, and the demand for highly educated, scientific, and comprehensive talents is increasing daily. Parents must invest more in education to acquire more skills for their children to compete in schools and careers.

#### Unsound public service system

Respondents mentioned an inadequate health care system that affects pregnancy, childbirth, and post-pregnancy recovery, newborns' low resistance, and the lack of a robust public health system that increases parental concerns. In addition, China is extremely short of public childcare services, so dual-earner parents have to seek help from grandparents, but generation-skipping education will conflict with parental educational values. In addition, the lack of older person care services has also caused middle-aged parents to feel pressured to take care of their children, thus reducing their desire to have more children.

An inadequate medical system can seriously affect parental confidence in having more children. For example, interviewees mentioned communication barriers between obstetrics and neonatology, which almost resulted in neonatal asphyxiation due to delayed rescue efforts. Medical care for pregnant and birth-giving women in China is also highly lacking, and it is difficult to find formal guidance on breastfeeding and postpartum recovery. In addition, the Chinese researcher has concluded through investigation that women with free medical insurance are more willing to rebirth than women with urban employee medical insurance (Zhang, 2020).

Respondents also noted the high cost of giving birth, especially when more comfortable and personalized services are needed.

If you want to do a more in-depth examination like amniocentesis, that is completely self-funded and it is very expensive. But sometimes, when common medical devices can not be confirmed, it is necessary to do a more detailed self-pay examination because the hospital will not be responsible for you and your child; you have to pay for yourself.

(35-year-old, mother, one sibling, bachelor's degree, full-time job, one child)

Furthermore, parents' demands for childcare services increased, but the degree of socialization of childcare services was low under the Chinese three-child policy (Liu et al., 2022). At present, in China, there is a shortage of childcare services for infants and toddlers aged 0–3, with the enrolment rate of infants and toddlers aged 0–3 at only 4%. They can only choose private childcare services, while the enrolment rate in some developed countries is as high as 50% (Li et al., 2017).

I have been a stay-at-home mother for three years, and my job has just become regular. If I stop working for another three years to give birth and raise the second child, I think that will be difficult for me to integrate into the new job and society.

(31-year-old, mother, no sibling, master's degree, full-time job, one child)

At the same time, more than 77% of Chinese urban families have grandparents who guide their children at the age of three, according to a nationwide survey on grandparents' involvement in childcare in China (National Health Commission of the People's Republic of China, 2019). However, traditional Chinese grandparents often use unscientific educational concepts and traditional doting ways to treat their grandchildren, which makes the parents with higher education often conflict with the grandparents. The vicious circle of conflict between grandparents' traditional childrearing concepts and modern parents' scientific childrearing concepts has become an obstacle to Chinese parental fertility desire after implementing the three-child policy.

We even installed surveillance video in our apartment because my dad simply doesn't care for the baby following the way my wife and I need. He would feed my baby age-inappropriate food and strange feudal practices, such as not opening curtains in the room where the baby was before six months old because of superstitions that babies' eyes could see ghosts. My wife and I were so frustrated.

(32-year-old, father, two siblings, associate degree, full-time job, one child)

The Chinese population's age structure is unbalanced, the aging base is large, and the speed is fast, and the number of disabled and semi-disabled older people will increase the burden of social and family care. However, the family planning policy that started in the 1980s made China

quickly realize the population transition. The number of children in the family decreased, the family size became smaller, and the only child to care for the older persons was under tremendous pressure. At the same time, with the arrival of the three-child policy, middle-aged parents, who are an only child, are burdened with the responsibility of taking care of older persons and children, and they can only be discouraged from encouraging them to have a second and third child.

My father would have a great physiological reaction after chemotherapy, vomiting, hair loss, and several times of high fever. Besides going to work, I took care of my father with my mother. Sometimes my wife tutored the child to write their homework, and sometimes my daughter was sent to a relative's family.

(34-year-old, father, no sibling, bachelor's degree, full-time job, one child)

#### Wrong definition of parental roles

In traditional Chinese culture, it has been a conventional definition of the roles of father and mother for men to work outside the home and women to take care of the family. In the traditional definition, such family division of labor between men and women provides an unreasonable excuse for the absence of fathers in raising children. At the same time, the prejudices of stay-athome mothers included laziness, avoidance of work, and social disconnection. The low involvement of fathers in the parenting process and the questioning and prejudice of mothers as stay-at-home mothers have left many with no fertility desire to have a second or third child.

The role of a father is considered an irreplaceable role in the growth of children. Studies have found that children close to their fathers are less likely to be extreme, have fewer psychological problems such as anxiety, depression, and compulsion, and have higher emotional intelligence (Flouri & Buchanan, 2003). Therefore, some mothers who participated in the interview said that the absence of fathers in children's early growth is a kind of regret for both children and fathers.

He did not even have time to meet or talk to his son, let alone attend his son s academic tutoring and family activities. I think a boy's lack of a father will hurt his character and emotional development.

(33-year-old, mother, no sibling, bachelor's degree, part-time job, one child)

Moreover, the stereotypes clustered together in a study labeled as follows: busy and overworked; executive of the home; lazy, selfish, and lost; ideal mother; balancing work, family, and life; and traditional/nontraditional woman. These labels are not very friendly and include some negative descriptions. The mothers interviewed were afraid of such prejudice, but if they had two or three children without help, they had to endure social discrimination while being stay-at-home mothers. One participant, a former stay-at-home mother, said that when they were asked why they did not work when they went out on a weekday, they felt they would stop having more children and get a job.

I couldn't even stroll the streets after dropping my two kids off at kindergarten, and my neighbors would ask me why I didn't have to work on weekdays. I didn't want to answer questions about how many chores I still had to do after the kids went to kindergarten.

(34-year-old, mother, no sibling, bachelor's degree, unemployment, two children)

#### The encouragement of the desire to give birth to more children

To further optimize the policy, the Chinese government is actively encouraging couples to have three children, and the government is speeding up the construction of supporting measures. Respondents had these thoughts on incentives to have more children: Reducing the cost of rearing and education, improving the healthcare system, improving care services during pregnancy, childbirth, and the post-natal period, promoting work welfare for parents, appealing to fathers to be involved in parenting, raising the social status of stay-at-home mothers, and improving places and facilities for mothers and infants.

#### Reducing the cost of rearing and education

All participants mentioned that the cost is too high to provide children with a higher-quality living environment and educational resources. If the government could introduce some policies or financial incentives to share the cost of parents' rearing and education of children, the parents of more than half of the participants would be willing to have a second or third child. These strategies to reduce the cost of rearing and education include financial incentives to have a second or third child, controlling the excessive growth of housing prices, and reducing the homework burden and the burden of out-of-school training.

After the three-child policy was issued, Panzhihua city in Sichuan province will give CNY 500 (USD 74) to registered families with a second or third child per month until the child is three years old. Linze County, Zhangye City, Gansu Province, will grant CNY 5,000 (USD 737) a year for the second child and CNY 10,000 (USD 1,475) a year for the third child to the permanent resident families until the child is three years old (Chen, 2021). Such financial incentives have a positive effect. Provinces and cities can implement strategies such as individual income tax exemption and direct monetary subsidies to promote the fertility desire to have more children according to the actual situation.

But there is no such birth subsidy in the city where my registered permanent residence is located. It seems that the only one city is implementing in the whole country.

(35-year-old, father, no siblings, bachelor's degree, full-time job, one child)

In addition, a study found that rising housing prices significantly negatively impact second-child fertility behavior. With every 1% increase in housing prices, the second-child fertility rate will decrease by 17.8% (He, 2021). The government should regulate housing prices, curb irrational rises in housing prices, ensure the healthy development of the real estate market, and combat

speculative demand. At the same time, supporting policies would be introduced to link housing purchases with the number of children to increase the fertility desire of couples.

I have several friends in Chinese first-tier cities who have chosen not to have children or even not to get married because they may face the situation of renting a house for their whole lives.

(34-year-old, father, one sibling, bachelor, full-time job, one child)

As competition for schools and jobs grows, so does parental anxiety. The core of anxiety is whether children can achieve upward social mobility through education, leading Chinese out-of-school training institutions to make huge profits by playing on parental education anxiety. Parents' anxiety leads to the increased flow of family capital to private teachers and out-of-school training institutions, among which middle-class parents are the most serious. Therefore, the root of reducing the cost of education lies in reducing parental educational anxiety, but alleviating parental anxiety cannot be expected to mitigate itself automatically.

In 2021, the General Office of the CPC Central Committee and the State Council issued Opinions on Further Reducing the Homework Burden of Students in Compulsory Education and the Burden of out-of-school Training (referred to as "double reduction") (Ministry of Education of the People's Republic of China, 2021), which made strict provisions on homework time, examination arrangements and training institutions for primary and secondary school students. In addition, the government needs to help parents set up the scientific concept of education and reform the college entrance examination proposition. For example, let the answer templates of out-of-school training institutions lose their effectiveness in front of the questions in the college entrance examination. The above strategies can make parents actively reduce the investment of family capital and relieve anxiety, thus reducing the cost of education.

Our children's education investment is the second biggest expense in our family after the mortgage. Personalized education services cost a lot of extra money. Some time ago, the government announced a policy to reduce the pressure on students to attend after-school tutoring; but with so much competition, parents were still going to great lengths to find private tutoring.

(38-year-old, father, no sibling, associate degree, full-time job, two children)

#### Improving the public welfare and service system

In addition to essential public medical security services, the public services system should also include the improvement of childcare services, pension services, fertility care services system, and the construction of mother-infant facilities, as well as the promotion of work welfare for parents.

Policy and financial support are strong guarantees that the Chinese government should provide for the development of childcare services. On this basis, policymakers and services providers should listen to the authentic voice of parental demand for childcare services and build a complete childcare service system with public welfare and universal benefits, quality assurance, scientific guidance, operation evaluation, and supervision, which is expected to promote the fertility desire of Chinese couples under the three-child policy.

My mother-in-law and I had a lot of parenting conflicts before our son turned three. If there were childcare institutions that I could trust, I would definitely send my child there and then immediately send my mother-in-law away. At present, there are few public childcare services available, while private childcare services are too expensive and make me uneasy. I have no choice but to ask my mother-in-law to help me.

(31-year-old, mother, no sibling, master's degree, full-time job, one child)

In the implementation of the national strategy on population aging, it is necessary to focus on the pension service needs of the older persons healthcare who are unable to take care of themselves and are seriously ill in families with only one child and another few children (Wu & Wang, 2021). The public pension service system should be guided by the government, sponsored by society, and operated by the market. It should focus on the older persons and disabled, community and rural older persons care, long-term care system construction, and older persons care for families with few children.

The overall improvement of the medical system is not only beneficial to pregnant women, new mothers, and newborns but also to the whole of society. The older persons to see a doctor is also convenient, and the medical costs are cheap. The children to see a doctor is also smooth, so as the middle-aged parents will save a lot of time and money.

(28-year-old, mother, no sibling, bachelor's degree, part-employment, one child)

Improving the fertility care services system includes improving care services during pregnancy, childbirth, and post-natal period and improving places and facilities for mothers and infants. Moreover, integrated management of obstetrical clinics and wards and one-stop service for pregnant women, puerperal, and newborn are the demands of couples and parents, but also the boost to improve the fertility desire.

My breastfeeding experience was so painful because I had nipple inversion that often the baby couldn't suckle, or they sucked in the wrong way to chapped nipples. It really hurts. I hope that from the beginning of pregnancy, there will be a series of complete guidance services. In Our country, there is a lack of guidance in any link, so I have to rely on my own exploration.

(32-year-old, mother, no sibling, doctorate, full-time job, one child)

According to a report by the China Development Research Foundation (2019) concerning factors influencing breastfeeding in China, the exclusive breastfeeding rate of infants within six months of birth in China was 29.2%, far lower than the world average of 43% and the average level of

37% in low- and middle-income countries. The subjective reason was that parents did not understand the importance of breastfeeding. In contrast, the objective reason was a lack of facilities in public places for mothers and infants to provide conveniences. Furthermore, because of a lack of management and maintenance standards, some facilities in mother-infant rooms were not effectively sterilized and cleaned, eventually becoming useless furnishings.

The government needs to build more mother-infant rooms in public places to make it easier and more enjoyable for mothers to take their children out instead of running around shopping malls looking for facilities to use.

(34-year-old, father, one sibling, bachelor, full-time job, one child)

Improving parental work benefits is an objective condition to encourage the fertility desire to have more children, such as public holidays, breastfeeding leave, paternity leave, and so on. As the overtime culture fades and employees get more vacation time, parents naturally spend more time with their children and have the time to desire and intend for a second or third child.

Several times, I arranged to take my daughter to the amusement park on a certain Saturday very early; but I had to cancel the appointment with my daughter when I received the notice of working overtime. Her eyes were full of disappointment, and I could only say sorry and even dared not look at her.

(37-year-old, mother, no sibling, associate degree, full-time job, two children)

#### Changing perceptions of father and mother roles

The traditional pattern of parental roles in China is reflected in the famous quote, "men take care of things outside the family, whereas women take care of things inside the family" (Shek & Law, 2019; Shek & Sun, 2014), namely, "detached fathers, involved mothers." Children with fathers who are involved in parenting have physical, academic, social, emotional, and moral advantages over those without a father role for a long time (Flouri & Buchanan, 2003; Lamb, 2000). Therefore, Chinese society must provide conditions and change attitudes to promote fathers' involvement in parenting.

The children had become so used to not seeing their father for days that they didn't usually ask them where they were. I won't consider having a third child until my husband changes his attitude toward parenting and starts valuing the presence and involvement of the children raising.

(36-year-old, mother, no siblings, bachelor's degree, Unemployed, two children)

In addition, the prejudice against stay-at-home mothers should be changed. Under the Chinese three-child policy, the contradiction of intergenerational rearing and the lack of public childcare services requires more full-time mothers to take care of and educate their children before the children are three years old. Stay-at-home motherhood is not a motto for laziness or social isolation. It is an important responsibility that requires patient companionship, hard work, and

loving care. The mass media needs to spread more understanding and praise for stay-at-home mothers rather than leading society to think that full-time mothers spend all days at home watching movies with coffee or hanging out on the street with friends after dropping off kids.

Prejudice is always there, and we avoid people's eyes, and our husbands laugh at us for being outside of society.

(33-year-old, mother, no siblings, high school diploma, Unemployed, two children)

## Discussion

This study investigated the fertility desire of Chinese parents to have their second or third child under the three-child policy. It summarized three themes from their perspectives: the attraction of multiple offspring to the fertility desire, the desire to have more children but dare not have, and the encouragement of the desire to give birth to more children.

In interviews, more than half of the 40 participants said they were interested in having two or three children. Especially the announcement of the three-child policy, related encouragement measures have also begun to develop gradually. Parents who are the only-child themselves often have a strong desire to have more children. They are more eager for children to grow up feeling less lonely because of their siblings and to share the responsibility of caring for their aging parents later. These are the experiences of parents who are themselves only-child. The results showed that 32 participants (80%) were only-child with no siblings, experienced the loneliness of being an only child growing up, and faced pressure to support their elders in middle age. At the same time, yearning for the lively atmosphere of a big family and a sense of self-actualization in parenting also appeal to parents as their fertility desire to have a second or third child.

Although the Chinese government strongly encourages parents to have a second and third child, the fertility desire to have more children is very low (Mullen, 2021; Zhu & Hong, 2021). Here, the interviewees expressed the obstacles to the fertility desire to have two or three children. A painful pregnancy or childbirth experience and physical and mental changes after birth were the top codes mentioned by mothers. In particular, six mothers who had experienced a difficult birth, postpartum weight gain, or postpartum depression said they had no desire to have a second or third child. The age and physical condition of a mother were the code mentioned by all interviewees. According to the findings, older couples have less desire to have a second or third child, presumably due to the mother's physical condition.

The high cost of living and education was another category of the barrier to having a second or third child, such as exorbitant house prices, pressure from job competition, and the high cost of education. In this study, more young parents identified competing for societal pressures, including high mortgages and education costs, as one of the factors that diminished their desire to have more children. The results are consistent with the low fertility trap hypothesis, which claims that fertility is determined by a person's desires and expected income and assumes that young people's desires are rising while younger cohorts' expected incomes are falling (Lutz et al., 2006). At that point, fertility desires are impacted.

Participants mentioned the codes under the unsound public service system category most frequently. An inadequate medical system adds to parental worries about their children's health. Due to the lack of public childcare services, more than 77% of families choose the intergenerational education method of grandparents raising their children (National Health Commission of the People's Republic of China, 2019). However, the educational concepts of grandparents and parents are prone to conflict due to the differences of the times, and the lack of childcare support becomes an obstacle to the fertility desire of the second or third child. The primary barriers to their desire to have children, particularly for highly educated and high-income parents, are the conflict between intergenerational education and the absence of a public service system.

Finally, there is the serious problem of providing for the aged, especially for the only-child born, after 1982 when the only-child planning fertility policy was implemented (Cao et al., 2009). The lack of support for the aged has increased the pressure and sense of crisis on middle-aged parents, so they have no desire to consider having more children. There was another category that deals with traditional father and mother roles. The contradiction between the traditional parental roles and the transformation of women's social roles in modern society has also become part of the obstacles to fertility desire, which mainly includes the low involvement of fathers and the social status bias of stay-at-home mothers. According to the results, more mothers than fathers identified the discrimination against stay-at-home mothers and the absence of fathers as obstacles to their desire for more children.

Respondents said their fertility desire to have a second or third child might be aroused if there were some strategies. Such as reducing the cost of rearing and education, reducing the cost of rearing and education, improving the public welfare and service system, and changing perceptions of father and mother roles. In reducing the cost of rearing and education, participants mentioned that financial incentives to give birth, which some cities have begun, could be adopted. Through the macro-control of the policy for housing prices, the economic pressure of parental mortgages is reduced. Meanwhile, suppose the cost of education is reduced. In that case, parental fertility desire to have a second or third child will likely be transformed into their fertility intention and then into their fertility behavior.

Of course, better public welfare and services could increase parental fertility desire, for example, establishing a public childcare service system, establishing a public pension service system, improving the fertility care service system, improving places and facilities for mothers and infants, and promoting work welfare for parents, for example, providing certain government financial subsidies for the construction and maintenance of mother-infant facilities or introducing social funds to improve the enthusiasm of the construction and promote the construction of these facilities (Ma et al., 2018). These public welfare services support parents in raising and educating their children. Changing perceptions of father and mother roles is the last category in the theme of encouraging fertility desire. Participants felt that the traditional roles of a father as breadwinner and a mother as stay-at-home were overturned in modern society, that women had entered the workforce and achieved inevitable success, so that traditional stay-at-home mothers were labeled lazy, out of society, and work-shy (Odenweller & Rittenour, 2017), while that the traditional role of breadwinner fathers had not changed.

## Limitations

Firstly, sampling methods, which would have resulted in the selection of a less representative sample, are one of this study's limitations. This bias is due to the possibility that participants may belong to related social or cultural groups. Moreover, the varied fertility desires in China, which might not be the same in other settings, were another one of the study's limitations. Nevertheless, the study's themes regarding fertility desire to have more children of Chinese parents under the three-child policy generalizable resonance. The study offers additional information about Chinese parents' desires for fertility under the three-child policy (Liu et al., 2022). To investigate the prevalence of parental fertility desires to have more children, it will be essential to expand pertinent research in the future to non-Chinese settings.

## Conclusion

The 1980s one-child family planning policy, the 2016 universal two-child policy, and the 2021 three-child policy aimed to reasonably adjust the population structure in China to promote social development. Given that China is in a demographic window, the three-child policy needs to be taken advantage of as much as possible (Liu et al., 2022). This study was based on previous quantitative studies to know the fertility desire of parents in the Sichuan province of China and adopted in-depth and semi-structured interviews predesigned according to the Traits-Desires-Intentions-Behavior (T-D-I-B) framework developed by Miller and colleagues (Miller, 1994, 2011) to conduct qualitative research, to listen to more authentic and specific parental voices about their fertility desire to have a second or third child.

A total of 20 pairs of parents were interviewed. Through analysis of the transcribed interview data, 25 codes, 11 categories, and 3 themes were identified. The themes were the attraction of multiple offspring to the fertility desire, the desire to have more children but dare not have, and the encouragement of the desire to give birth to more children. Based on this, the Chinese three-child policy needs supportive encouragement measures to raise the fertility rate, alleviate the aging problem, and improve the population structure. These supportive encouragement measures need to be considered and formulated from the parental expression about the cost of life and education, public welfare and services, and the roles of father and mother stereotypes.

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# References

- Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, 1(3), 385–405. https://doi.org/10.1177/146879410100100307
- Balbo, N., Billari, F. C., & Mills, M. (2013). Fertility in advanced societies: A review of research. *European Journal of Population / Revue Européenne De Démographie*, 29(1), 1–38. https://doi.org/10.1007/s10680-012-9277-y
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa
- Braun, V., & Clarke, V. (2012). Thematic analysis. In H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (Eds.), *APA handbook of research methods in psychology, Vol. 2. Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57–71). American Psychological Association.
- Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (Ed.), *Six theories of child development: Revised formulations and current issues* (pp. 187–249). Jessica Kingsley Publishers.
- Cameron, L., Erkal, N., Gangadharan, L., & Meng, X. (2013). Little emperors: Behavioral impacts of China's One-Child Policy. *Science*, 339(6122), 953–957. https://doi.org/10.1126/science.1230221
- Cao, S., Tian, T. A. O., Qi, F. A. N., Ma, L. I., & Wang, G. (2009). An investigation of women's attitudes towards fertility and China's Family Planning Policy. *Journal of Biosocial Science*, 42(3), 359–375. https://doi.org/10.1017/s0021932009990551
- Chen, M., & Yip, P. S. (2017). The discrepancy between ideal and actual parity in Hong Kong: Fertility desire, intention, and behavior. *Population Research Policy Review*, 36(4), 583–605. https://doi.org/10.1007/s11113-017-9433-5
- Chen, Z. (2021). Jiedu Sichuan sheng di qi ci renkou pucha zhuyao shuju [Interpret the Main Data of the Seventh National Census in Sichuan Province]. http://www.sc.gov.cn/10462/c106896/newzxft.shtml
- China Development Research Foundation. (2019, February). Zhongguo muru weiyang yingxiang yinsu daocha baogao (huiyi ban) [China Breastfeeding Factor Survey Report (Council Edition)]. https://www.cdrf.org.cn/jjh/pdf/mu.pdf
- Ettekal, A., & Mahoney, J. (2017). Ecological systems theory. In K. Peppler (Ed.), *The SAGE encyclopedia of out-of-school learning* (pp. 239–241). SAGE Publications, Inc.
- Exchange Rates UK. (2023). *US Dollar to Chinese Yuan spot exchange rates for* 2022. https://www.exchangerates.org.uk/USD-CNY-spot-exchange-rates-history-2022.html
- Fan, Z. (2017). Woguo jihua shengyu zhengce de tiaozheng ji duice yanjiu [Study on the adjustment and countermeasures of China's Family Planning Policy] [Master's thesis]. Qiqihar University. https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD201901&filename=1017877922.n h
- Fang, H., Chen, J., Yuan, F., & Gao, J. (2021). Zhongguo chengsi fangjia dui shengyu lu de yingxiang: Jiyu zhang san jiao diqu 41 ge cheng shi de jiliang fen xi [The econometric analysis of the effect of city housing prices on fertility rates: A study from 41 cities of the Yangtze River Delta in China]. *Geographical Research*, 40(9), 2426–2441. https://doi.org/10.11821/dlyj020201069
- Flouri, E., & Buchanan, A. (2003). The role of father involvement in children's later mental health. *Journal of Adolescence*, 26(1), 63–78. https://doi.org/10.1016/s0140-1971(02)00116-1
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report*, 8(4), 597–606. https://doi.org/10.46743/2160-3715/2003.1870
- Hashemzadeh, M., Shariati, M., Mohammad Nazari, A., & Keramat, A. (2021). Childbearing intention and its associated factors: A systematic review. *Nursing Open*, 8(5), 2354–2368. https://doi.org/10.1002/nop2.849
- Hayford, S. R., & Agadjanian, V. (2012). From desires to behavior. *Demographic Research*, 26, 511–542. https://doi.org/10.4054/demres.2012.26.20

- He, Y. (2021). Fangjia dui chengzhen jiating shengyu xingwei de yingxiang yanjiu [Research on the impact of housing price on urban family fertility behavior]. *Shanghai Real Estate*, 9, 29–34. http://qikan.cqvip.com/Qikan/Article/Detail?id=7105559823
- Khandkar, S. (2009, October 23). *Open coding*. The University of Calgary. https://pages.cpsc.ucalgary.ca/~saul/wiki/uploads/CPSC681/open-coding.pdf
- Kirk, D. (1996). Demographic transition theory. *Population Studies*, (3), 361–387. https://doi.org/10.1080/0032472031000149536
- Klasen, S. (2019). What explains uneven female labor force participation levels and trends in developing countries? *The World Bank Research Observer*, 34(2), 161–197. https://doi.org/10.1093/wbro/lkz005
- Lamb, M. E. (2000). The history of research on father involvement. *Marriage & Family Review*, 29(2–3), 23–42. https://doi.org/10.1300/j002v29n02\_03
- Leridon, H. (2004). Can assisted reproduction technology compensate for the natural decline in fertility with age? A model assessment. *Human Reproduction*, 19(7), 1548–1553. https://doi.org/10.1093/humrep/deh304
- Li, P. L., Wang, H., Ding, X. P., Fu, X. H., & Liu, H. Y. (2017). Dui fada diqu 0-3 sui ertong tuo yu fuwu shi chang de diaocha yu sikao yi nanjing shi wei li [Investigation and Reflection on the market of 0-3 year old child care service in developed areas taking Nanjing city as an example]. *South China Population*, 32(2), 71–80. https://doi.org/10.3969/j.issn.1004-1613.2017.02.007
- Li, Y. (2021). Quanmian erhai zhengce xia shanxi sheng yuling renqun shengyu yiyuan ji yingxiang yinsu lianghua fenxi [Quantitative analysis of fertility willing and influencing factors of reproductive age population in Shanxi province under the universal two-child policy] [Master's Thesis]. Shanxi Medical University. https://doi.org/10.27288/d.cnki.gsxyu.2021.000828
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. SAGE Publications, Inc.
- Liu, C., Abdul Rahman, M. N., Wang, X., & Mao, Y. (2022). Parental demands for childcare services of infants and toddlers in China under the Three-Child Policy. *Child Care in Practice*, 1–25. https://doi.org/10.1080/13575279.2022.2109596
- Lutz, W., Skirbekk, V., & Testa, M. R. (2006). The Low-Fertility Trap hypothesis: Forces that may lead to further postponement and fewer births in Europe. *Vienna Yearbook of Population Research*, 4, 167–192. https://doi.org/10.1553/populationyearbook2006s167
- Ma, X., Li, M., & Jiang, H. (2018). Shanghai shi gonggong changsuo muying sheshi xianzhuang yu fazhan kunjing fenxi [Analysis on current situation and development dilemma of maternal and child facilities in public places in Shanghai]. *Medicine and Society*, 31(12), 50–52. https://www.zhangqiaokeyan.com/academic-journal-cn\_medicine-society\_thesis/0201270585056.html
- Mcleod, S. (2020, December 29). *Maslow's Hierarchy of Needs*. Simply Psychology. https://www.simplypsychology.org/maslow.html
- Miller, W. B. (1994). Childbearing motivations, desires, and intentions: A theoretical framework. *Genetic, Social, and General Psychology Monographs*, 120(2), 223–258.
- Miller, W. B. (2011). Differences between fertility desires and intentions: Implications for theory, research and policy. *Vienna Yearbook of Population Research*, 9, 75–98. https://doi.org/10.1553/populationyearbook2011s75
- Miller, W. B., & Pasta, D. J. (1995). Behavioral intentions: Which ones predict fertility behavior in married couples? *Journal of Applied Social Psychology*, 25(6), 530–555. https://doi.org/10.1111/j.1559-1816.1995.tb01766.x
- Ministry of Education of the People's Republic of China. (2021, July 24). Zhonggong zhongyang bangong ting guowuyuan bangong ting yinfa "guanyu jinyibu jianqing yiwu jiaoyu jieduan xu esheng zuoye fudan he xiaowai peixun fudan de yijian" [The General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Opinions on further reducing the burden of homework and off-campus training for students in the compulsory education stage"]. http://www.moe.gov.cn/jyb\_xwfb/gzdt\_gzdt/s5987/202107/t20210724\_546566.html

- Moeini, B., Taheri, M., Shirahmadi, S., & Otogara, M. (2021). Declining desire for childbearing in couples with higher education: A qualitative study in Iran. *Journal of Population and Social Studies*, 29, 604–621. https://doi.org/10.25133/jpssv292021.037
- Mullen, A. (2021, June 5). *Three-child policy: How many children can you have in China?* South China Morning Post. https://www.scmp.com/economy/china-economy/article/3136092/chinas-three-child-policy-why-was-it-introduced-and-what-does
- Mynarska, M., & Rytel, J. (2020). Fertility desires of childless Poles: Which childbearing motives matter for men and women? *Journal of Family Issues*, 41(1), 7–32. https://doi.org/10.1177/0192513x19868257
- National Health Commission of the People's Republic of China. (2019, May 11). *Ying yuer zhaohu nanti youwang huanjie* (Quanwei fabu) [Child care problems expected to ease (Authoritative release)]. https://baijiahao.baidu.com/s?id=1633191162079820324&wfr=spider&for=pc
- Odenweller, K. G., & Rittenour, C. E. (2017). Stereotypes of stay-at-home and working mothers. *Southern Communication Journal*, 82(2), 57–72. https://doi.org/10.1080/1041794x.2017.1287214
- Patton, M. Q. (1987). How to use qualitative methods in evaluation. SAGE Publications, Inc.
- Qiao, X. (2015). Cong dandu erhai zhengce zhixing xiaoguo kan weilai shengyu zhengce de xuanze [The choice of coming fertility policy through the effect of the new policy ]. *Chinese Journal of Population Science*, 2, 26–33.
  - http://qikan.cqvip.com/Qikan/Article/Detail?id=664325754&from=Qikan\_Search\_Index
- Rongcheng Government Affairs. (2021, May 11). Di qi ci quanguo renkou pucha zhuyao shuju gongbu: Quanguo renkuu 14.1 Yi! Sichuan renkou 83674866! [The main data of the Seventh National Census are released: The national population is 1.41 billion! Sichuan has a population of 83,674,866!]. https://m.thepaper.cn/baijiahao\_12618415
- Rubin, H. J., & Rubin, I. S. (2011). Qualitative interviewing: The art of hearing data. SAGE Publications Inc.
- Shek, D. T. L., & Law, M. Y. M. (2019). Parenting in contemporary Hong Kong: Observations and reflections. *International Journal of Child Adolescent Health*, 12(4), 391–401. http://hdl.handle.net/10397/93714
- Shek, D.T.L., & Sun, R.C.F. (2014). Parenting in Hong Kong: Traditional Chinese cultural roots and contemporary phenomena. In H. Selin (Ed.), *Parenting across cultures: Childrearing, motherhood and fatherhood in non-Western cultures* (pp. 25–38). Springer.
- Shen, Y., & Ma, S. (2010). Chuzhong dusheng zinv fumu jiaoyang fangshi dui gudu gan de yingxiang [Influence of parental rearing pattern on loneliness of junior middle school only-child]. *China Journal of Health Psychology, 18*(4), 457–459. http://qikan.cqvip.com/Qikan/Article/Detail?id=33641276&from=Qikan\_Search\_Index
- Tatum, M. (2021). China's three-child policy. *The Lancet*, 397(10291), Article 2238. https://doi.org/10.1016/s0140-6736(21)01295-2
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In C. Willig, & W. S. Rogers (Eds.), *The SAGE handbook of qualitative research in psychology* (2nd. ed., pp. 17–37). SAGE Publications, Inc.
- Testa, M. (2012, February). Family sizes in Europe: Evidence from the 2011 Eurobarometer Survey. Vienna Institute of Demography of the Austrian Academy of Sciences. https://www.oeaw.ac.at/fileadmin/subsites/Institute/VID/PDF/Publications/EDRP/edrp\_20 12 02.pdf
- United Nations. (1956). *Population Bulletin of the United Nations* (ST/SOA/SER.N/5). https://digitallibrary.un.org/record/3880984?ln=en
- Wu, H., & Wang, G. (2021). Kuaisu laoling hua guocheng zhong zhongguo dusheng zinv jiating zhaoliao fudan yanjiu [Study on the care burden of China's one-child families in the aging of the population]. *China Soft Science*, 7, 152–163. http://qikan.cqvip.com/Qikan/Article/Detail?id=7105283116&from=Qikan\_Search\_Index
- Xiang, Y., Xiang, J., & Xu, M. (2021). Gaoling chanfu fenmian hou buliang qingxu diaocha ji yingxiang yinsu fenxi [Investigation of adverse emotions and analysis of influencing factors in older women after childbirth]. *Maternal and Child Health Care of China*, 36(22), 5272–5375. https://doi.org/0.19829/j.zgfybj.issn.1001-4411.2021.22.047
- Yang, J. (2017). Gendered division of domestic work and willingness to have more children in China. *Demographic Research*, 37, 1949–1974. https://doi.org/10.4054/demres.2017.37.62

- Yıldırım, B. (2020). Preschool STEM activities: Preschool teachers' preparation and views. *Early Childhood Education Journal*, 49(2), 149–162. https://doi.org/10.1007/s10643-020-01056-2
- Zhang, W. Z., & Zheng, J. Y. (2021). The willingness of women of childbearing age to have a second child in Lanzhou under the "universal two-child policy." *Children and Youth Services Review*, 121, Article 105732. https://doi.org/10.1016/j.childyouth.2020.105732
- Zhang, X. (2020). Quanmian erhai zhengce xia tianjin diqu yun chanfu zai shengyu xianzhuang yanjiu diaocha [Investigation of the status of maternal reproduction in Tianjin Under the "Two-Child" policy] [Master's thesis]. Tianjin Medical University. https://doi.org/10.27366/d.cnki.gtyku.2020.001035
- Zhu, W., & Hong, X. (2021). Are Chinese parents willing to have a second child? Investigation on the ideal and realistic fertility willingness of different income family. *Early Education and Development*, 33(3), 375–390. https://doi.org/10.1080/10409289.2021.1955581