

# ONE CHILD POLICY: THE CHANGING EXPERIENCE DESIGN OF BIRTHING HOSPITALS IN CHINA

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## ABSTRACT:

In 1979, Deng Xiaoping established the one child policy to limit population growth among the urban, Han Chinese. While the policy's intent was to limit population, an unintended change came in how young Chinese women in think about the experience of childbirth. Because of this political policy, these women began to think of childbirth as a "once in a lifetime" experience. For a Chinese woman who is currently in her early 20s, the planning and anticipation of childbirth has become a life event much like planning and preparing for her wedding. This research on childbirth as a form of experience design, will focus on the major transformation in the thought processes and rituals surrounding childbirth and the nuances of the medical decisions these young couples make.

## I. INTRODUCTION

In 1979, Deng Xiaoping established the one child policy to limit population growth among the urban, Han Chinese. While the policy's intent was to limit population, an unintended change came in how young Chinese women in think about the experience of childbirth. Because of this political policy, these women began to think of childbirth as a "once in a lifetime" experience. For a Chinese woman who is currently in her early 20s, the planning and anticipation of childbirth has become a life event much like planning and preparing for her wedding. This research on childbirth as a form of experience design, will focus on the major transformation in the thought processes and rituals surrounding childbirth and the nuances of the medical decisions these young couples make.

This research examines and analyzes data collected on the changes in women's attitudes about childbirth, changes that have taken place in the hospital experience, and how those changes can inform other health care experience designs. It analyzes what factors about a birth experience seem to be the most significant to young men and women when selecting a birthing hospital. It will also examine how those hospitals market their birthing experiences. It will try to examine how emotional variables and medical variables are weighted in the minds of young women and men and how these variables are marketed to the women and their spouses. It will also examine how attitudes have evolved over the last 20 years by comparing generational responses.

The following research questions will be addressed:

1. What aspects of a birthing experience most influence couples to choose that experience?
2. What are the most common features of a childbirth experience in China?
3. How have attitudes about childbirth changed over the last generation in China?
4. How can the information from examining the experience design of childbirth in China inform other types of experience design in medical facilities?

Data was collected primarily about childbirth hospitals available to young women in Shanghai. Ethnographic data from two generations of women will be collected and compared in this pilot study to examine generational views about the changing experience design of childbirth hospitals in Shanghai.

## 2. RESEARCH METHODOLOGY

This study examines the types of hospital and childbirth services available to couples in Shanghai, China. All of the hospitals for evaluation were selected from Shanghai to increase the likelihood that other factors related to location would not affect the data. With a population of over 18 million people, Shanghai is the largest financial and commercial city in China. Originally a fishing village, it is now an important seaport. It's historical significance as international trade center makes Shanghai a very cosmopolitan region with many multi-cultural influences. Because of its social, economic, and cultural significance Shanghai was selected as the site for evaluating hospitals and birth-related services for this study. Twelve district hospitals, 7 municipal hospitals, and 3 international hospitals located in Shanghai were selected for evaluation.

A set of evaluation criteria were developed as a baseline for comparison between the selected hospitals. The evaluation criteria include:

- convenient location;
- a variety of birthing options to choose from;
- reputation of the facility;
- cost of services;
- availability of private attending medical care;
- private pre-birthing rooms;
- attractive hospital rooms and facilities;
- availability of classes on child birth, infant care, and breast feeding;
- and the availability of midwife services.

The target audience for this survey is Chinese couples who have a child that was born in China. The survey participants include both men and women from the age of 18 and up. The responses are evaluated to see where specific groups of people show preferences for certain childbirth hospital features and where the various groups of people show differences in their attitudes about the childbirth process. Participants in this survey were selected through word of mouth advertising and through posted advertisements.

Using the evaluation criteria, a survey was developed to evaluate the relative importance of each of the following variables to Chinese men and women:

### **Convenient location**

As in any big city around the world, traffic is very heavy at peak hours in Shanghai. Because of the traffic congestion, the government in Shanghai limits individual automobile purchases, therefore most Chinese families do not have a car. Even the families that have cars usually do not recommend pregnant women to drive. So pregnant women have to take buses or taxis to doctor appointments or the hospitals during their pregnancy. Also, in the case of an emergency, most pregnant women prefer to use a hospital near their home. Therefore, the location of the hospitals is thought to be an important consideration by many people when they choose a childbirth hospital.

### **Choice of birthing options**

Shanghai is an important seaport in China. Shanghai's historical significance as an international trade center makes the people of Shanghai very cosmopolitan. They have the reputation of liking to experiment with new things. Also there are a lot of international people who live in Shanghai; this international audience has introduced a variety of foreign birthing methods to the area. Moreover, based on cultural influences from the West that go back to the 18th century, the people of Shanghai have always been attracted to imported products and ideas. Therefore, more and more young couples are interested in having different birthing experiences. In fact, using different birthing methods has become a fashion trend among young couples.

### **The reputation of the facility**

An important reason for the people of Shanghai to choose a specific birthing hospital is trust. People in Shanghai are considered to be the most particular by other Chinese people. When making decisions such as that of choosing a birthing hospital, it has been said that, "they dig before they make decisions." For these

people, only the reputation of a birthing hospital that comes from the recommendation friends or relatives who have experience with that facility will have value for them.

### **The cost of services**

Twenty years ago, the cost of childbirth was covered by health insurance. At that time, people in Shanghai seldom thought about the cost of childbirth. But today, in order to increase their popularity and profitability, more and more hospitals provide extra options for childbirth that are not included in health insurance. With the development of free market economy, the average income of young couples in Shanghai has increased giving more and more people the ability to afford these extra costs. Moreover, although they can have more children, a lot of young couples prefer to have only one child, thus making the birthing experience one of the biggest events in their lives. Because of this, most of them are willing to spend more money on the childbirth experience. Therefore, the costs of those extra experiences will be a high priority of interest for them.

### **The availability of private attending medical care**

With increasing family incomes, couples in Shanghai can have access to high quality medical service. To many of these couples, private medical care is one of the signs of high quality medical service. Also, because childbirth is an event which may happen only once in their lives, these couples give a lot of thought to how they want these experiences to be.

### **Private pre-birthing rooms**

Because Shanghai is a big city, with more than 18 million people, people often live in crowded conditions. Individual people seldom have any privacy. More and more, young people in Shanghai value privacy more than they did twenty years ago. Therefore, hospitals which provide private rooms have become a very popular childbirth option.

### **Attractive hospital rooms or facilities**

Women in Shanghai were the first group in China to be influenced by West. Because of this, they care about details. When they are pregnant they tend to become more sensitive and emotional; and most of them believe that a pretty or attractive childbirth environment will definitely help them relax during the birth.

### **The availability of classes on childbirth, infant care, and/or breast feeding**

Most pregnant women in Shanghai are first time moms. Although they can get information from older women who have children, professional training still seems important for them because they are often well-educated. They understand how professional training will benefit them. Moreover, most pregnant women in Shanghai are working and have active social lives. They already get benefits from community. They know how important it is to get experience from other pregnant women. They feel that classes for pregnant women will absolutely give them a better chance to get the valuable information.

### **The availability of midwife services**

The concept of the midwife is imported to China. It is popular in West. The people in Shanghai still think that imported products are the highest quality. Senior nurses in Shanghai who have medical backgrounds can be midwives. In Chinese the midwife has the name: "Daole", which means a guide to happiness. It is believed that midwives can reduce the pain experienced during delivery.

## Hospitals and Birth Option Information

The chart in figure 1 shows each hospital and its set of features. (Fig. 1) Data was collected through phone interviews of hospital officials and through materials published by the hospitals advertising their services.

Figure 1: features of childbirth hospitals in Shanghai (metropolitan area)

	A convenient location	The opportunity to choose from a variety of birthing options	The reputation of the facility* <sup>1</sup> (1 - 4)	The cost of services* <sup>2</sup> (1 - 5)	The availability of private attending medical care	Private birthing rooms	Attractive hospital rooms or facilities	The availability of classes* <sup>3</sup>	The availability of midwife services
District hospitals	Yanpu Maternity and children's hospital	★	★					★	★
	Changping Maternity and children's hospital	★	★	2	1	★	★	★	★
	Huangpu Maternity and children's hospital	★				★	★	★	★
Childbirth only	Hongkou Maternity and children's hospital	★	★					★	★
	International Peace Maternity and children's hospital of the China welfare institute		★		4	★	★	★	★
	Fudan University medical college's Affiliated Maternity Hospital (Red house Hospital)		★	4			★	★	★
	The First Maternity and children's hospital		★				★	★	★
Municipal hospitals	Shanghai Second Medical University's Affiliated Xinhua Hospital		★		2		★	★	★
	Shanghai Jiaoong University Affiliated Ruiji Hospital			1				★	
	Shanghai Jiaoong University Affiliated No. 1 Peoples Hospital		★					★	★
Composite hospitals	Shanghai Second Medical University's Affiliated Ruijin Special outpatients services	★		2	3	★	★	★	★
	World Link		★			★	★	★	★
	United Family		★	3	5	★	★	★	★
International hospitals	East International		★				★	★	

\*1: 4 - Very Good, 3 - Good, 2 - Average, 1 - Poor  
 \*2: 5 - Above 50,000 RMB, 4 - Around 40,000 RMB, 3 - Around 25,000 RMB, 2 - Around 5,000 RMB, 1 - Around 5,000 RMB  
 \*3: Classes such as child birth, infant care, and breast feeding  
 Because most of the district hospitals are small scale and has no website, this chart lists four of them which have the representation. The other fifteen district hospitals are Huangpu Maternity and child health hospital, Luwan Maternity and child health hospital, Xuhui Maternity and child health hospital, Putuo Maternity and child health hospital, Zhabei Maternity and child health hospital, Minhang Maternity and child health hospital, Boshan Maternity and child health hospital, and Pudong Xinqiu Maternity and child health hospital.

### 3. SURVEY TOOLS

A survey instrument was developed that included a combination of quantitative and qualitative assessment questions. The questions were designed to assess the relative importance placed on a variety of birth-related issues. The combination of assessment techniques was used to collect both levels of importance and also specific examples of personal experiences and their impact on the perception of the childbirth experience.

#### **Survey about the Changing Experience of Childbirth in China**

##### **Demographic Data**

The following demographic questions were asked:

What is your age?

What was your age at the time of your baby's birth?

What is your highest level of education?

What is/was your occupation?

What year was your baby born?

What is the name of the hospital where your child was born?

##### **Quantitative Data**

The quantitative data that was collected and assessed on a Likert scale of 5- very important, 4-Important, 3-Uncertain, 2-Not Important, 1- not important at all. Responses to the following questions were collected:

How important are the following features of a birthing experience in influenced you to choose a specific hospital or child birth facility? (rated on a scale of 5 – very important down to 1 – not important at all)

Water Birth

Cesarean Section

Private Room

Beautiful Rooms and Facilities

Private Attending Doctors and/or Nurses

Special Gifts for the Parents and Baby

Family can Attend the Birth

Reasonable Cost

Close Distance to Home

Close Distance to Friends or Family

Good Reputation

How important is the birth of your child when compared to other life experiences such as your wedding or your graduation?

- The most important life experience
- A very important life experience, similar to a wedding or graduation
- Important but not more than a wedding or graduation
- Less important than a wedding or graduation

How did you learn about the hospital that you used for your child's birth?

- Friends or family recommended it
- Advertising in newspaper or billboard
- Advertising mailed
- Internet advertising or search
- Previous experience with that hospital
- Other, please specify: \_\_\_\_\_

How important are the following facilities/issues in choosing your birthing hospital? (rated on a scale of 5 – very important down to 1 – not important at all)

- Lamaze
- Provided Classes for Breast Feeding
- Provided Classes for Infant Care
- Provided Classes for Infant CPR
- Opportunity to Choose a Type of Birth Process such as Natural Childbirth or Cesarean
- Quality of the Medical Staff of Doctors and Nurses

### **Qualitative Data**

Qualitative data was collected to determine if a Kansei method could be developed to assess the sensory, behavioral, and emotional aspects of the childbirth experience. The following qualitative data was collected:

- Did any things about your hospital make you feel uncomfortable or dissatisfied?
- What do you expect the doctor or nurse to do for you to make your birth experience highly successful?
- Did any things about your hospital make you feel comfortable or satisfied?

## 4. DATA ANALYSIS AND OUTCOMES

Data was collected during the summer of 2007. Individual interviews were conducted in person, over the phone and through e-mail. A total of 120 people from Shanghai, China were interviewed for this study. Of these people, 47 were men and 73 were women. Demographic information with their age, occupation, and educational levels was also collected. Respondents were asked to provide both quantitative and qualitative data with regard to their childbirth experiences. All of the people surveyed had a childbirth experience in Shanghai or the surrounding area.

Quantitative analysis was used to analyze those respondents who indicated that they had either a positive or negative childbirth experience. Fifty-one people indicated that they had a positive childbirth experience. Of these people, 63% were women and 37% were men. Thirty percent of the people reporting a positive experience were between the ages of 30 and 35, 12% were between the ages of 25 and 29, 14% were between the ages of 36 and 44, and the remaining 45% were over the age of 45. The majority of the respondents, 76%, indicated that they were between the ages of 25 and 29 when their child was born. The majority of respondents, 45%, had a high school education. An additional 39% indicated that they had at least a college degree.

Qualitative responses were analyzed to indicate what constitutes a positive experience. Through these qualitative responses, 41 people indicated that they had a positive childbirth experience. The following five assessment measures were used to indicate positive experiences:

Staff attends to patient needs.

Satisfied with beautiful facilities, a nice environment, and good service.

Staff has a good attitude.

The facility provides physical comfort, classes on infant care, and basic knowledge about birthing

Satisfied with the professional work and medical treatment.

From these quality assessment measures, 22% of the respondents indicated the desire to be in a beautiful facility with a nice environment and good service as the highest measure of a positive experience. A good attitude for staff was also highly valued by 20% of the respondents. Of the other assessment measures, a staff that was attentive to patient needs was indicated by 18% of respondents, physical comforts/infant care classes/basic knowledge of delivery was indicated by 14% of respondents, and satisfied with professional and medical treatment was indicated by 8% of respondents.

Specific qualitative responses that demonstrate aspects of the five quality assessment measures include the following:

**In response to the question, “What do you expect the doctor or nurse to do for you to make your birth experience highly successful?”, the following responses were given:**

A female, age 30-35, said, “Doctors should introduce general knowledge and explain the disadvantages of the delivery method that I chose and the possible dangers.”

A female, age 30-35, said, “Before delivery, based on the individual situation, doctors should introduce general knowledge and the advantages and disadvantages of the delivery method and how to deal with it. Usually doctors do not introduce that kind of information. Most pregnant woman did their own research online in order to learn about the delivery process.”

**In response to the question, “Did any things about your hospital make you feel comfortable or satisfied?”, the following response was given:**

A female, age 36-44, said, “The nurse was kind and professional. The music that played during the delivery made me feel relaxed.”

Qualitative assessments were also used to evaluate negative responses. A total of 47 negative childbirth experiences were received, 19 from males and 28 from females. The largest number of negative experiences at 38% came from the respondents over the age of 50. The lowest percentage of negative experiences came from the 25 – 29 year old age group at 13%. The following is an example of the type of negative childbirth experiences that were recorded:

**In response to the question, “Did any things about your hospital make you feel uncomfortable or dissatisfied?, the following responses were given:**

A male, age 25-29, said, “My wife and I spent a lot of time waiting in line.”

A female, age 30-35, said, “I waited nine days after I applied for a private room.”

A female, age 30-35, said, “The caesarean wound is ugly.”

A male, age 30-35, said, “There were only nurses, no doctors, during the delivery. My wife could not get good rest because there was no privacy. There were three women in the room.”

## 5. CONCLUSIONS AND AREAS FOR FURTHER RESEARCH

Based on the results of a T-test to analyze the indicators of a positive childbirth experience, the respondents indicated that having a private doctor attending to the birth was the most important measure of a positive experience. Other indicators of a positive childbirth experience were the availability of infant care classes and infant CPR classes, as well as the cost of the care facility and the distance to their home and their family.

Most of the qualitative responses that were given were largely based on emotional or social situations. People from all generations have experienced both positive and negative childbirth experiences. In some cases they were not satisfied with hospital service but at the same time they appreciated the fact that the hospital did something to keep them emotionally satisfied. The basic indication of this research is that unsatisfactory service can be forgiven as long as the childbirth experience can meet their emotional needs. Some respondents offered both positive and negative responses to their childbirth experience. Some examples of this include the following:

**A female respondent: age: 36-44 said both, “the experience made me scared,” and “the environment was good because the mom and baby could stay in the same room.”**

**A female respondent: age: 30-35 said both, “the wound left by the Cesarean looks bad,” and “ the nurses’ attitudes and experiences are good.”**

**A female respondent: age: 25-29 said both, “too many people have to share one room making it hard to get rest,” and “the direction and assistance that I received helped a lot.”**

Most negative responses involve negative attitudes or emotions. Respondents over the age of 50, both male and female, gave more negative responses than did their younger counterparts. Females also gave more negative experience responses than did males.

Respondents over the age of 50, both men and women, had a lower level of involvement in the childbirth process. Men from this generation had to get information about the childbirth from their wives. By contrast, the younger generation of men are willing and able to attend the whole birth experience. They have a high level of involvement in the whole delivery process from selecting the childbirth facility through the childbirth process. Women over the age of 50 wanted to learn how to collaborate in the process. Women of younger generations would like to learn about the advantages and risks associated with birth experiences so that they can make more informed decisions. Younger women are not only more aware of the medical risks of childbirth, but are also more aware of such things as the security issues of childbirth and the issues of confidential and personal data.

The social and economic changes that have taken place during the period between 1979 and 2007 can also be seen in the responses of these two generations. Respondents from old generations have more negative comments than do their young counterparts. During previous generations, almost all people lived in big cities and had the same salaries. Their society did not provide many choices in service. But people are different and they love options, so the older generations as a group offered more complaints about their lack of options. Due to improved developments in the economy, today's society provides more options with regard to services; therefore, the young generations have more choices in their birth experiences.

Although the old generations are not a group that childbirth hospitals will pursue, they do influence how young people choosing hospitals. Advice from family in decision-making is important to Chinese people.

A limitations of this study is the size of the sample. Additional data analysis is currently underway to look at the affects of other variables and the services provided by childbirth experiences. Data collection is still underway. This research is conducted as a pilot study to develop a methodology for combining quantitative and qualitative information into a reproducible methodology for the study and assessment of childbirth and hospital facilities.

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