

# Declining Desire for Childbearing in Couples with Higher Education: A Qualitative Study in Iran

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## Abstract

Iran has experienced a significant decline in the fertility rate over the past decades. One of the principal reasons for this decline is decreased willingness to bear children, especially in the highly educated couples subset. For that reason, developing and implementing a successful population policy is essential to increase fertility in this subpopulation. The study aimed at explaining the unwillingness to bear children in this subgroup. The qualitative research was conducted using a content analysis approach based on the data acquired using in-depth and semi-structured interviews with couples with an educational level of master's and above, and without children or having one child. In this study, in total, 40 couples (40 women and 40 men) were interviewed. Of the participants, 57.5% had one child. Four main themes were developed using conventional content analysis: rationality and awareness, gender equality and willingness to bear children, cultural and social renovation, and concern about the child's future. The results indicated that different factors such as economic, social, and cultural reasons and less hope in the future affect unwillingness to bear children in highly educated couples. Taking into account, these factors are essential at the time of development and implementation of pro-natalist policies.

## Keywords

Annual population growth; childbearing; fertility; highly educated couples; qualitative study

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## Introduction

The population, which has undergone significant changes throughout history, is one of the most critical pillars of societies. According to the World Fertility Report 2015, globally, total fertility declined at unprecedented rates and to unprecedented levels. Total fertility in more than 83 countries, which constitutes close to half of the world's population, was lower than necessary for generational continuity. Many countries around the world are now experiencing below-replacement fertility levels (United Nations, 2017).

Replacement level is the amount of fertility needed to keep the population the same from generation to generation. This amount refers to the Total Fertility Rate (TFR) that will result in a stable population without increasing or decreasing. TFR is expressed as the total number of live births a woman, typically 15-44 years of age, would need to have over her childbearing years. If each woman gives birth to 2.1 children on average and these children survive to 15, she will have replaced herself and her partner upon death. Assuming no net migration and unchanged mortality, a total fertility rate of 2.1 children per woman ensures a broadly stable population (Craig, 1994). According to the United Nations medium-variant projection, the global level of fertility is expected to reach 2.2 live births per woman in 2050 and 1.9 in 2100, whereby countries will face the challenge of population decline (United Nations, 2020).

Similarly, with the annual population growth rate reduced to about 3% from the 1950s to the 1980s, Iran has also experienced grave transformations in its population (Abbasi-Shavazi, 2017). Next, there was nearly a 70% reduction in the fertility rate in Iran in the 1990s with the implementation of the population change policies by the government and planners, and the positive attitude of couples towards family control programs (Abbasi-Shavazi, 2017). The continuation of this trend in 2001 brought the TFR to the replacement level, and in 2019, it fell below the replacement level (1.7) (Roudi et al., 2017; Statistical Center of Iran, 2020). Hamadan province has also experienced this decrease in the annual population growth rate. In 2011-2016, the annual population growth rate was -0.23, and the fertility rate was 1.8 (Statistical Center of Iran, 2020). That is well below the 2.1 percent replacement fertility level necessary to sustain the population.

These population transformations and the changes in the population transition stages have led to changes in the age structure of the population. The age structure of the population changes from youth to old age. According to forecasts, the Iranian elderly population will reach 7.4% by 2027. Therefore, population aging and public health costs, which are specifically higher for the elderly, pose significant challenges for Iran, with severe consequences for its economy and labor market. This change in the demographic structures towards an aging population will also have social and security implications for the country (Azizi-Zeinalhajlou et al., 2015).

One solution to prevent such problems is to identify factors contributing to the declining annual population growth rate and fertility rate and then readjust the country's population policies based on these factors. Considering the increased birth rate in the 1980s, the number of young people (within the fertility age) currently accounts for a significant portion of Iran's population. In other words, as long as those born in the 1980s are of marriageable and childbearing age, the number of births in the country can be affected. The results of Iran's population and housing censuses conducted in 2016 showed that 57.5% of women were in the

fertility age (15-49 years). Therefore, if population growth policies were prioritized, the best time to bring a change would be now (Abbasi-Shavazi, 2017; Roudi et al., 2017).

As a social reality at the macro-level, fertility is influenced by environmental, social, political, and cultural factors (e.g., improvements in the educational accessibility, the high economic cost of children, adverse economic conditions, job, and economic insecurity) (Baki-Hashemi et al., 2018; Mahmoudiani, 2020; Razeghi-Nasrabad & Abbasi-Shavazi, 2020). At the micro-level, fertility is affected by individuals' thoughts, motivations, desires, and tendencies (Abbasi-Shavazi, 2017). In Iran, the rapid decline in fertility in the late 1980s was due to structural changes, on the one hand, and changes in values and desires, on the other (Abbasi-Shavazi, 2017).

The revision, development, and implementation of a successful population policy to increase the fertility rate depend on the policy makers' knowledge of young couples' reproductive behaviors and preferences. Studies have shown that the regional and subpopulation differences in fertility trends are explained by various social factors, which are considered one of the basic assumptions in reproductive studies. This is because people's reproductive tendencies depend not only on living and biological conditions but also on social conditions (Behjati-Ardakani et al., 2017). Currently, the lowest fertility rate in Iran is related to the educated population (Abbasi-Shavazi, 2017). Considering the increased probability of giving birth to more intelligent children in highly educated families, the low reproductive desire in this group, their key role in building culture (Lundberg et al., 2016), and finally, the limited information available on the reasons why they choose not to have children, it seems necessary to understand the desires, viewpoints, and the culture of this class of society in relation to childbearing.

Awareness of the desire to have children and the influencing factors would provide evidence for designing appropriate policies to increase fertility or prevent further decline in fertility rates. Given the suitability of qualitative studies for identifying attitudes and viewpoints, this study aimed at explaining the unwillingness to bear children in highly educated couples using a qualitative method.

## **Methods**

### **Ethical consideration**

The Ethics Committee of Hamadan University of Medical Sciences approved this study (Document Number: 9311145756, Ethics Committee Code: 5303). The participants were asked to sign an informed consent document before participating in the research (including the permission to record the interviews).

### **Design**

In line with the research goal, the study adopted a qualitative content analysis method to explore human emotions and perceptions hidden behind their experiences (Morse, 1994). The research tool was semi-structured interviews with highly educated couples (both wife and husband) in Hamadan, Iran. The collected data were analyzed and categorized, and the themes were extracted.

## Study area

Hamadan is located in the western part of Iran. Almost all the population speaks Persian (Farsi). This city was selected because of its average annual population growth rate (-0.23) between 2011 and 2016, which is below the national average of 1.24. It is noteworthy that its fertility rate (1.8) is also below the national average of 2.01 (Statistical Center of Iran, 2018). Some of the famous universities in Hamadan include Bu-Ali Sina University, Hamadan Medical University, Islamic Azad University of Hamadan, and the Hamadan University of Technology.

## Selection of study participants

In this study, the couples (both wife and husband) who had a master's degree or above, and graduated from universities verified by the Iran Ministry of Science, Research and Technology, were considered highly educated couples. A purposive sampling method was used to select the appropriate couples.

Afterward, snowball techniques were used to identify other couples with a similar situation regarding childbearing and the level of education in that community. The participants were chosen from three major universities (Bu-Ali Sina, Medical Sciences, and Islamic Azad University) in Hamadan, which admitted students in Masters and Ph.D. programs. The research population was collected using billboards, sending invitations for cooperation at crowded areas and pathways, and establishing information stations for one week across these universities.

Inclusion criteria for this study included having a Master's degree, its equivalent or a higher degree, being a Ph.D. student (both wife and husband), having a single child at least three years old, or having been married for at least three years with no children, and having no desire for childbearing in the next five years. Exclusion criteria in this study were the unwillingness of one of the spouses to participate in the interview and the willingness of one of the spouses to have children in the next five years.

## Data collection

Data were collected using in-depth interviews and semi-structured interview guidelines. The sampling continued until data were saturated, and no new code was obtained from the interview (Glaser et al., 1967). The interviews were conducted with 80 persons (40 couples). Herein, the data saturation was obtained in the sixty-first interview, but nine additional interviews were performed to ensure high data validation. Five interviews were concurrently conducted in the presence of both partners (husband and wife) to collect information (based on the researcher's perception) through their discussions during the interview.

The interviewees were couples who were interviewed separately. They were excluded from the study if one spouse refused to be interviewed. The research team conducted the interviews in groups of two, such that the male interviewers were assigned to male respondents and female interviewers to female respondents. The interviewers were appointed in the presence of both spouses and at their request. One of the main issues in qualitative research is the validity of the researcher as an instrument of data collection. Various elements, including professional literature review, professional experiences, and personal experiences, enhanced

the researcher's skills and readiness to conduct appropriate qualitative research. The principal researchers' experience of infertility, family planning, and health promotion, and the inclusion criteria applied to the study team placed them in a position to better understand the participant arguments.

The data were collected between October 2016 and February 2017 through recorded interviews. An interview guideline was also developed by the Ph.D. students of health education and promotion and reviewed by advisor professors who were experts in health education. The interviews were carried out in a quiet room inside Hamadan University of Medical Sciences. At the beginning of the interview, using a semi-structured interview guideline, the researchers explained the purpose of the study and the length of the interview. The procedure of the present study was clarified for the participants before performing the interview. After determining the demographic characteristics of participants, six structured questions about the factors affecting the couple's unwillingness to childbearing were asked.

1. In your opinion, what are the challenges following the decrease or increase of the current population of the country?
2. In your opinion, what are the factors affecting the number of children in a family?
3. What are the influential factors affecting your decision not to have children? (The question was asked from couples with no children).
4. What are the influential factors affecting your decision to have a single child? (The question was asked from couples with a single child).
5. What inhibits the childbearing of educated couples?
6. Is there any comment you would like to share? If positive, please explain.

Interviews were conducted and documented in the local language of the participants, and the duration of each interview was between 34–50 minutes. The interview notes were used when writing the interview summary, determining the list of unanswered questions, and describing the study themes. At the end of the interview, participants could freely express whatever they wanted that had not been already mentioned during the interview. Then, each interview was recorded and then transcribed verbatim. Finally, the recorded notes were compared with their recorded voices in terms of content correspondence. All of the tapes were labeled with the date of the taken notes and the transcripts. Meanwhile, further interviews were required for 10 cases for achieving additional data.

Three methods were used for accuracy, transferability, and minimizing researcher bias. Interview with different people in terms of gender, age, duration of the marriage, and education level could increase the confirmability, credibility, and transferability of the collected data. Accordingly, three researchers coded each interview separately, and their results were compared with each other and discussed until a consensus was achieved. In addition, a qualitative research expert monitored and audited all of the research stages. The research validity was also enhanced by dedicating sufficient time to study and creating open and sympathetic communication with the interviewees. Eventually, the prepared manuscripts and prominent themes of the study were returned to the participants, their feedback was acquired, and necessary corrections and suggestions were made. Finally, the findings were compared with the results of other previous studies.

## Data analysis

The data were analyzed through content analysis. Content analysis is a research tool used to determine certain words, themes, or concepts within some given qualitative data. Using content analysis, researchers can quantify and analyze the presence, meanings, and relationships of certain words, themes, or concepts.

Through the Constant Comparative Method (CCM) (Glaser et al., 1967), the first author analyzed the transcribed interviews. At the first level of analysis, open coding was used to classify the data into codes. Next, axial coding was employed to determine the patterns and characteristics in the data. The codes were then compared with each other, and the similar codes were classified into the same category. The categories were compared to ensure their discrimination.

## Results

Table 1 shows the number and percentage of couples with high education levels by socio-demographic characteristics (N=80). In this study, 80 participants were interviewed, 57.5% of whom had one child, 37.5% had studied medical sciences, and 41.25% were in the 31-35 age range.

**Table 1:** Summary of Sample Characteristics (N=80)

Demographic Characteristics	Categories	N (%)
Age (years)	25-30	22 (27.50)
	31-35	33 (41.25)
	36-40	15 (18.75)
	41-45	10 (12.50)
Gender	Male	40 (50.00)
	Female	40 (50.00)
Number of children	No children	34 (42.50)
	One child	46 (57.50)
Education Level	Master's degree	31(38.75)
	Ph.D., Doctor of Medicine	49 (61.25)
Field Of Study	Medical science	30 (37.50)
	Engineering	28 (35.00)
	Humanities	22 (27.50)

The data analysis resulted in identifying 420 primary codes, 14 categories, and four themes. The themes were rationality and awareness, gender equality and willingness to bear children, cultural and social renovation, and concerns about the child's future (Table 2).

**Table 2:** Themes, Subthemes, and Couples Quotes Regarding Their Unwillingness to Bear Children

Relevant themes derived from categories	Relevant categories	Examples of code
Rationality and awareness	<ul style="list-style-type: none"> <li>- Economic uncertainty</li> <li>- Uncertainty about psycho-emotional conditions</li> <li>- The high cost of having a child</li> </ul>	<ul style="list-style-type: none"> <li>- In my opinion, the economy is an important factor in childbearing, which I think is the most difficult one. The level of income is important.</li> <li>- At the beginning of our marriage, we did not have a baby due to economic problems. Now that we have aged, we don't feel like it. The child needs time and patience.</li> <li>- In my view, the child needs a great deal of capital, both financial and emotional.</li> </ul>
Gender equality and willingness to bear children	<ul style="list-style-type: none"> <li>- Equality in individualistic institutions (education and occupation) outside the family</li> <li>- Equality in family-oriented socialist institutions (Familial care)</li> </ul>	<ul style="list-style-type: none"> <li>- One of my concerns is related to my job. Currently, I am studying; and during this study, I cannot have another child, as now, my academic conditions are very tough. Even with this one child, I cannot manage to do my job. Besides, I should enter the labor market.</li> <li>- Actually, most of the time, government advertises we support women so that they can have more children; but, in reality, there is no job security. I know many colleagues who were not promoted anymore immediately after they knew that they were pregnant.</li> </ul>
Cultural and social renovation	<ul style="list-style-type: none"> <li>- Changing the nature of life</li> <li>- Changing the value system</li> <li>- Children's health and quality of life</li> </ul>	<ul style="list-style-type: none"> <li>- More than one child; inhibits my fun and entertainment. I have already dedicated much of my energy and existence to this one child. The presence of a child prevents my scientific, occupational, and recreational activities.</li> <li>- The low-income people in the city increase their children easily, as they are not thoughtful. On the other hand, the wealthier class and those with a higher level of knowledge and education do not bear children.</li> <li>- In my view, the child needs a great deal of capital, both financial and emotional. This means that you should spend a lot of time with the child. You should train your child; to the desired level, ranging from simple training to teaching social behaviors, artistic skills, life skills, and even social intelligence. The greater the number of children, the less time the parents can dedicate to each of them.</li> </ul>
Concerns about the child's future	<ul style="list-style-type: none"> <li>- Inequality in the level and quality of education</li> <li>- Uncertainty about their child's; future career</li> <li>- Political instability and economic security</li> <li>- Environmental crisis</li> <li>- Social insecurity</li> <li>- Absence of government planning</li> </ul>	<ul style="list-style-type: none"> <li>- In terms of academic facilities, welfare, and occupation, not many proper plans have been thought of in the country.</li> <li>- Lack of infrastructure required for the happiness of children, environmental crises in Iran, the war in the region, economic sanctions, and war threats by the great powers makes me worried about my child's future.</li> <li>- Here, everything is limited and in my view, the child; should be free and decide to have a boyfriend, or wear short clothes. Due to these limitations and the behaviors here, violence, and pointless stresses, I do not like to have a child. I don't want my child to grow up here, as the environment is not suitable.</li> <li>- The government mostly thinks about its profits. At times of crisis, it demands its nation to reduce the population, while at the time of war or authority, they require population growth. This attitude by a government is acceptable only when it clearly states its plans and the support it will provide for children in the future.</li> </ul>

## Rationality and awareness

The couples participating in this study stated that their intention to have a child is influenced by analyzing their current family situation. This theme included three categories: economic uncertainty, uncertainty about emotional or psychological maturity, and the high cost of having children.

### Economic uncertainty

Many couples pointed to economic problems such as an obstacle to childbearing, believing that they should not think about childbearing until they have a desirable financial status. These concerns included not having private accommodation or apartments, and sufficient funds or income.

*The quality of having a child is really important to me. For example, when my child is born, I should have a suitable house; they should have an independent room.*

(30 to 35-year-old, female, Ph.D., single child)

*In my opinion, the economy is an important factor in childbearing, which I think is the most difficult one. The level of income is important. In terms of the level of income, first, you should have some money to support your child until they reach a certain age and then enters the occupational community. Now, you should have money to send them to school, which will cost 100 to 150 million IRR annually. These are all important issues.*

(35 to 40-year-old, male, master's degree, single child)

*How am I supposed to have a child in a one-bedroom apartment? There is not enough room even for us.*

(30 to 35-year-old, male, master's degree, no children)

### Uncertainty about psycho-emotional conditions

This theme has been extracted from two categories of the parents' age difference with children and psycho-emotional readiness.

Parents' age difference with children: most couples pointed to age difference as one of the most critical factors in their unwillingness to bear children. The couples stated that this difference could result in disagreement in discourse, action, and even the parent-child viewpoints on different topics. On the other hand, the couples believed that a large age gap meant not enough energy for accompanying and playing with their children.

*I have a 35-year age difference with my first child, and I cannot relate to him very well. We will have problems with this child some years later. When he becomes 17 or 18 years old, I will be 57/58 years old. I will not feel like doing anything while he is at the beginning of his youth with energy and excitement. I cannot keep pace with him. He will always go to his friend groups and something like this. Who will take care of him?*

(35 to 40-year-old, male, master's degree, single children)



*At the beginning of our marriage, we didn't have a baby due to economic problems. Now that we are older, we don't feel like it. Having a child needs time and patience.*

(35 to 40-year-old, male, Ph.D., no child)

Psycho-emotional readiness: many couples consider childbearing is dependent on their special emotional conditions. For example, when the spouses reach a consensus, they feel that they have acquired the necessary competence for accepting this responsibility, are reassured about family stability, and feel happy.

*First, we should find ourselves, and then, we should get familiar with our behavior and see whether we can handle the upbringing of another person. I don't like the fact that a child should be the reason for continuing our marital life.*

(25 to 30-year-old, male, master's degree, no child)

*One issue that I can mention is the policy to overwhelm Iranian women with grief and sorrow. As long as people are not happy, they would not be hopeful about life, let alone want to have a child. Now, with the low extent of advertising happiness and joy and overemphasizing grief and mourning periods, our government has always been entertaining people with these programs. In the long run, they always create depressed people.*

(30 to 35-year-old, female, master's degree, single children)

## **The high cost of having a child**

Many couples emphasized that they are unwilling to have children due to the high cost of childbearing. From the couples' perspective, caring for children is synonymous with spending time and economic and psychological costs.

*In my view, the child needs a great deal of capital, both financial and emotional. This means that you should spend a lot of time with the child. You should train your child; to a desirable level, ranging from simple training to teaching social behaviors, artistic skills, life skills, even social intelligence. The greater the number of children, the less time the parents can dedicate to each of them. Indeed, I'm not able to educate three children.*

(30 to 35-year-old, female, Doctor of Medicine, single children)

## **Gender equality and willingness to bear children**

The gender system has a significant influence on fertility rates. The dimensions of gender equality, such as gender equality related to employment, financial resources, and family work, have diverse effects on raising children and childbearing in various communities. This theme was extracted from two categories of equality in individualistic institutions (education and occupation) outside the family and equality in family-oriented socialist institutions (Family care).

## Equality in the individual-oriented institution (education and occupation) outside the family

Couples mentioned the education and employment status of women as another reason for delayed childbearing. The couples believed that women's education is essential, as it helps them go beyond their social and cultural status, and provides them with cultural capital. In addition, considering the social conditions of being employed, the willingness of a woman who is gainfully employed to bear children is relatively low. In addition to their regular official duty, they also bear the burden of household chores and childbearing.

*One of my concerns is related to my job. Currently, I am studying; and during this study, I cannot have another child, as now, my academic conditions are very tough. Even with this one child, I cannot manage to do my job. In addition, after that, I should enter the labor market. If I want to slow my progress again with a new pregnancy and a small child, it will be tragic for me.*

(30 to 35-year-old, female, residency, single children)

*I have to be outside the house from 7 in the morning to 6 in the evening because of my working conditions, well how can I manage a baby? I don't like to put my child in daycare.*

(30 to 35-year-old, female, master's degree, no child)

## Equality in family-oriented socialist institutions (Family Care)

The couples believed that with the increase in the number of children, the younger the children, the more care is needed; thus, demanding more time from the parents, especially the mothers. Therefore, many couples stated that they need support from families and the government.

The couples expressed that factors such as lack of proper supportive policies during the pregnancy and childbearing, lack of flexible work arrangements, and the low level of family support (such as division of household chores and taking care of children) are influential on their desire for childbearing. This issue was the main factor for working women in making decisions regarding childbearing.

Employed women, in particular, stated this issue as the main factor for decision-making about childbearing.

*Now, my parents take care of my daughter, but for another child, they don't have the adequate physical ability to help me. All these concerns have preoccupied my mind.*

(30 to 35-year-old female, residency, single children)

*Most of the time, they advertise that we support women so that they can have more children, but, in reality, there is no job security. I know many colleagues who were not promoted anymore immediately after they knew that they were pregnant. I experienced the same after my first pregnancy, and when I returned to my job, I lost my previous job position. Even now,*

*none of the good positions applies to me as I use milk pass and since I have a part-time job. With another pregnancy, I will end up being a service employee. Now I am an official employee with some years of working background. The contract-employed women have a much worse situation. One of my colleagues was compelled to resign after her second delivery. She had no support, her family was not here, and the workplace offers no support facilities. They don't even have a kindergarten so that the female employees could place their children there and be relaxed about their child.*

(30 to 35-year-old female, Ph.D., single children)

*In my opinion, we need support. If a woman wants to undergo a cesarean operation, it is costly. A package of diapers costs 240,000 IRR. When there is no support, it would be wonderful if, as in foreign countries, a nurse came to your home permanently until the first six months and helped the mother and took care of the child.*

(35 to 40-year-old, male, master's degree, no child)

## **Cultural and social renovation**

Statements of the couples who participated in the present research indicated that the sociocultural factors had changed their attitude regarding childbearing. These factors include the change in the nature of life, change in the value system, and the children's health and quality of life.

### **Change in the nature of life**

The couples expressed that they want fewer children to change the nature of the rest of their life since, with fewer children, they can have a better life. Therefore, they choose to have fewer children.

The couples repeatedly talked about the restrictions that childbearing creates in the social interactions of parents—especially mothers. They believed that children are obstacles to their personal growth, following their dreams, especially employment and education, and public activities such as parties, sports programs, travel, fitness, and beauty.

*Any child demands a large portion of the mother's physical and psychological health and creates significant challenges in her life. He or she can also affect her occupation and personal plans. Motherhood is part of the existence of any woman, not its entirety. As a human, she needs time for personal dreams and successes to can give meaning to her life personally.*

(40 to 45-year-old, male, Ophthalmologist, single children)

*More than one child; inhibits my fun and entertainment. I have already dedicated much of my energy and existence to this single child. The presence of another child can restrict my scientific, occupational, and recreational activities.*

(40 to 45-year-old, male, Ph.D., single children)

## Change in the value system

The couples stated that a smaller number of children had become a value, affecting their decision-making. Having fewer children has been interlinked with other values in the couples' minds, including awareness, empowerment, competence, and responsibilities. The participants stated that having many children is associated with the unsuitable economic status of the family, misery, inability to deal with the children and family, lack of planning, irresponsibility, low literacy, and low cultural growth of the family.

*The low-income people in the city increase the number of their children easily, as they are not thoughtful. On the other hand, the wealthier class and those with a higher level of knowledge and education do not bear more children unless they are financially prosperous. They then say that I am so well-off; that after a couple of years, I send them abroad.*

(40 to 45-year-old, male, master's degree, single children)

Children's health and quality of life Considering the changes in the attitude of the couples and their childbearing values, even in couples with a better economic status, they mainly seek to improve the health and quality of the life of their children rather than having more children.

Many couples stated that they were concerned about the proper upbringing of their children, following appropriate upbringing methods, and making logical and suitable decisions in this regard. They believed that the proper upbringing of fewer children is more feasible compared to more children.

In this regard, the couples mentioned the importance of education, dealing with emotional issues, and the quality of child upbringing.

*In my view, the child needs a great deal of capital, both financial and emotional. This means that you should spend a lot of time with the child. You should train your child to a desirable level, ranging from simple training to teaching social behaviors, artistic skills, life skills, even social intelligence. The greater the number of children, the less time the parents can dedicate to each of them. Indeed, I'm not able to educate three children.*

(30 to 35-year-old, female, Doctor of medicine, single children)

## Concern about the child's future

The couples stated that the current economic instability and several social disturbances had challenged their plans for their children's future. Thus, they are not willing to bear another child. There was also a concern among the parents that by bearing more children and the shortage of facilities, they would not meet the needs of their children.

Many couples mentioned inequality in the level and quality of education, uncertainty about their child's future career, political instability, and economic security. They stated that these issues have made them anxious about their children's future, causing them to face other matters than welfare problems. Under these conditions, the fewer the number of children, the better it is for the couples.

*In terms of academic facilities, welfare facilities in terms of jobs, not many appropriate plans have been thought of in the country, to expect to see proper and fundamental things for the future generation.*

(30 to 35-year-old, female, Doctor of Medicine, single children)

*We are not like Korea that is constantly progressing. After 30 years, I still see Peykan (an old vehicle). What are new are Peykan Vanet and Pride, which are not accepted as standard vehicles anywhere globally? They say that Pride is the cause of many deaths on the roads. In a country like South Korea, you see that they started from zero. Now they are selling SantaFe, with no natural resources. Then, you see they are advancing and flourishing. If I were in their place, I would bear three children when I know my country is constantly developing; why not having children.*

(40 to 45-year-old, male, master's degree, single children)

*The lack of infrastructures required for the happiness of children, environmental crises in Iran, the war in the region, economic sanctions, and war threats by the great powers make me worried about my child's future.*

(40 to 45-year-old, male, master's degree, single children)

Some couples referred to social insecurity. They preferred to have fewer children so that their management would be more feasible in this atmosphere.

*Here, everything is limited, and in my view, the child; should be free and decide to have a boyfriend or wear short clothes. Due to these limitations and the behaviors here, violence, and pointless stresses, I do not like to have a child. I do not want my child to grow up here, as the environment is not suitable. This makes one decides to have fewer children. Even if I do not place my child; in kindergarten in this environment, I have to put them in pre-school to enter society. This society does not have a good effect on the child.*

(30 to 35-year-old, female, master's degree, single children)

*Even our cultural situation is not good. I liked to have a baby girl. Now I am very pleased that he is a boy. With this situation, there are many restrictions for girls who walk in the street, and they do not dare to let a thread of hair be exposed. They should always be stressed about the possibility of an acid attack.*

(40 to 45-year-old, male, master's degree, single children)

Many couples stated environmental crisis and lack of government planning. Under these conditions, they preferred to have fewer children.

*We have excellent natural resources. Nevertheless, every day, you hear that the country will face drought, and 50 million people will be compelled to immigrate. But to where? We do not know. Alternatively, they will be starved to death. So, why should we, through childbirth, cause someone to be added to the sheer number of the hungry or immigrants?*

(45 to 50-year-old, male, master's degree, single children)

*The water crisis and shortage can cause civil wars in the upcoming years. For example, in Isfahan and Yazd, this war has almost already begun. The insecurity in the region and the possibility of a foreign invasion will take my children to the war front, which will be troublesome if it occurs. Therefore, I don't see a bright future for my child; in this country.*

(30 to 35-year-old, female, Ph.D., single children)

*The government mostly thinks about its profits. At times of crisis, it requires its nation to reduce the population, while at the time of war or authority, they demand population growth. This attitude by a government is acceptable only when it clearly states its plans and the support it will provide for children in the future.*

(30 to 35-year-old, male, master's degree, single children)

## Discussion

The present study examined the reluctance of couples with higher education to have children. The extracted results were classified into four themes: rationality and awareness, gender equality and willingness to bear children, cultural and social renovation, and concern about the child's future.

Fertility in the couples who participated in this research is primarily rational and based on awareness. In their opinion, childbearing is a great responsibility that requires parents to make plans. The high level of education in these couples increased their awareness and capabilities. It enabled them to make more informed decisions regarding the number of their children based on their current conditions. When there is an analytical balance in their life concerning economic conditions, psychological readiness, and the economic costs of childrearing, they can decide to have children. In this regard, the financial status and the high economic price of bearing children were the most critical factors. The results revealed that the unfavorable economic conditions changed the childbearing patterns and behaviors and decreased fertility ideals (Haerimehrizi et al., 2017; Keshavarz et al., 2018; Oshrieh et al., 2020; Zhang, 2018; Zhou, 2019).

The economic insecurity prevailing in today's Iranian society has led to the unfulfilled economic aspirations of families, especially in the educated groups. Hence, due to the lack of access to essential facilities, they cannot have more children (Abbasi-Shavazi, 2017). The current economic inflation and the surging housing price, which most studied couples mentioned, is one of the most crucial prerequisites of life in young couples (Abbasi-Shavazi, 2017).

Accordingly, gender equality is another factor that has influenced the couples' willingness to bear children. The dimensions of gender equality on couples' willingness to bear children have different effects (Kolk, 2019; Kravdal, 2002). There is equality in the individualist institutions (occupation and education) in Iran, and currently, most Iranian women are highly educated and employed (Abbasi-Shavazi, 2017). However, the movement towards gender equality in the family and family-centered social institutions advances slowly. Therefore, young women (highly educated and employed) are involved in individualist institutions and those with equal education and financial participation as men expect to exist beyond the family in their individual lives. While they are primarily responsible for caring for the family,

they prefer to reduce their role in the family to strengthen their individualistic life. As a result, women are less willing to bear children (Esping-Andersen & Billari, 2015; Zhou, 2019). Hence, the policies that increase the participation of the female workforce and reduce the necessity to take care of the children can decrease the difficulty of being a mother and increase their desire for childbearing (Zhou, 2019).

Policies such as preserving the level of income and the job position of the mothers during their temporary leave and the postpartum period, establishing daycare centers for children, and envisioning a leave for fathers to take care of their children can facilitate the process of making decisions for becoming a mother (Afshari, 2015). Women who participated in this study stated that they are less inclined to have children due to gender inequality in family-centered social institutions.

The results demonstrated that the couples' desire for childbearing is not necessarily rational, and their beliefs regarding childbearing and its consequences could affect their tendencies. These beliefs are affected by the sociocultural; atmosphere of society, plus the expectations and demands of the couples. Fertility has moved from being high-priority to being low-priority, leading to a change in the nature of the couples' life. In a society with a high fertility rate, parents spend more time on childbearing and parenting. The investigated couples expressed that they prefer to have fewer children to change the quality of the rest of their life, achieve personal development, self-realization, personal and social development, and improve their child's life. However, this does not mean that childbearing has no value for highly educated couples. Instead, the form of this value has changed for them. The social and emotional value of childbearing is replaced with the economic value (Baki-Hashemi et al., 2018). Even families with a better financial status seek to improve their children's health and quality of life rather than increasing their quantity (Abbasi-Shavazi, 2017).

The couples believed that in our society, rather than having more children, the priority is to have families with more healthy children, especially in terms of mental status. Iran's current society requires quantitatively fewer children and children with more qualitative capabilities, not just higher numbers. Consistent with similar studies (Baki-Hashemi et al., 2018; Behboudi-Gandevani et al., 2015), having fewer children as a value was another reason for the reluctance of participants to have more children. These couples believed that the poor, illiterate, disappointed, and uncertain from future masses do everything they can to compensate for their shortcomings, including having more children.

Another critical reason expressed by all of the participants was their concerns about the social, economic, political, cultural, and environmental conditions of Iran, which according to these couples, can considerably affect their children's education, occupation, and welfare in the future. The concern about the environmental crises was not seen in other similar studies on Iran's general population (Baki-Hashemi et al., 2018; Chamani et al., 2015). This difference can be due to the difference in the research samples. The highly educated couples follow the daily events of the country, analyze, and interpret them with deeper insight; therefore, they might have more foresight than the public. The couples believed that the severe destruction of the environment is due to the absence of planning for protecting the environment in Iran. If this situation continues, the environment will not meet the needs of the current and future populations. For instance, the political tensions and conflicts resulting from water scarcity emerge both in the neighboring countries and inside Iran, leading to a chain of unpredictable pressures if the issue is not resolved.

The limitations of this study included the sampling techniques, which may result in selecting a less representative sample. This is because the couples might recommend people from a similar social, religious, or cultural group. However, this study provided some new information about the reasons contributing to the reluctance of highly educated couples to have children.

## Conclusion

Considering that Iran is in its demographic window, this golden opportunity should be used as much as possible, and investments and policies should be made for utilizing the demographic window phase aspiring for a healthy, active, and prosperous elderly population. One of the primary methods for taking advantage of this opportunity is making population policies and regulations proportionate to the country's population structure, which requires the legislators' and policy makers' full awareness of the population status of the country. The low tendency for childbearing is an index that should be considered in state planning by the authorities.

The results of the present study indicated that highly educated couples have less willingness to bear children due to economic, social, and cultural reasons and less hope in the future. Therefore, it appears that to encourage this group of society, legislating supportive laws for childbearing can be quite influential in making it possible to pursue education, occupation, and childbearing at the same time. Social happiness has decreased among these couples, and they have lost hope in the future. Thus, the authorities must consider providing livelihood, jobs, housing, welfare, and political security besides population growth policies. On the other hand, disregarding the macroeconomic or macro-environmental indicators in Iran regarding population planning has resulted in the intensification of environmental threats and problems. Hence, it is vital to achieve the desired environment, compensate for the problems, reduce threats, and foster economic growth and sustainable development.

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## References

- Abbasi-Shavazi, M. J. (2017). Population trends and situation in the Islamic Republic of Iran (2<sup>nd</sup> ed.). National Population Studies & Comprehensive Management Institute.
- Afshari, Z. (2015). [برابری جنسیتی و باروری در ایران]. *Women in Development and Politics*, 13(2), 245-262. <https://dx.doi.org/10.22059/jwdp.2015.55992>
- Azizi-Zeinalhajlou, A., Amini, A., & Tabrizi, J. S. (2015). Consequences of population aging in Iran with emphasis on its increasing challenges on the health system (literature review). *Depiction of Health*, 6(1), 54-64. <https://doh.tbzmed.ac.ir/Article/doh-117>
- Baki-Hashemi, S., Kariman, N., Ghanbari, S., Pourhoseingholi, M. A., & Moradi, M. (2018). Factors affecting the decline in childbearing in Iran: A systematic review. *Advances in Nursing & Midwifery*, 27(4), 11-19. <https://dx.doi.org/10.29252/ANM-027044>



- Behboudi-Gandevani, S., Ziaei, S., Farahani, F. K., & Jasper, M. (2015). The perspectives of Iranian women on delayed childbearing: A qualitative study. *Journal of Nursing Research*, 23(4), 313-321. <https://dx.doi.org/10.1097/JNR.0000000000000084>
- Behjati-Ardakani, Z., Navabakhsh, M., & Hosseini, S. H. (2017). Sociological study on the transformation of fertility and childbearing concept in Iran. *Journal of Reproduction & Infertility*, 18(1), 153-161. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5359852/>
- Chamani, S., Moshfeq, M., & Shekarbeigi, A. (2015). The study of challenges pertaining to the child bearing in Tehran City with the emphasis on the mixed method. *Gender and Family Studies*, 3(1), 9-38. [http://www.jgfs.ir/article\\_43235\\_en.html](http://www.jgfs.ir/article_43235_en.html)
- Craig, J. (1994). Replacement level fertility and future population growth. *Population Trends*, (78), 20-22. <https://pubmed.ncbi.nlm.nih.gov/7834459/>
- Esping-Andersen, G., & Billari, F. C. (2015). Re-theorizing family demographics. *Population and Development Review*, 41(1), 1-31. <https://doi.org/10.1111/j.1728-4457.2015.00024.x>
- Glaser, B. G., Strauss, A. L., & Strutzel, E. (1968). The Discovery of Grounded Theory; Strategies for Qualitative Research. *Nursing Research*, 17(4), 364. [https://journals.lww.com/nursingresearchonline/Citation/1968/07000/The\\_Discovery\\_of\\_Grounded\\_Theory\\_\\_Strategies\\_for.14.aspx](https://journals.lww.com/nursingresearchonline/Citation/1968/07000/The_Discovery_of_Grounded_Theory__Strategies_for.14.aspx)
- Haerimehrizi, A. A., Tavousi, M., Sadighi, J., Motlagh, M. E., Eslami, M., Naghizadeh, F., & Montazeri, A. (2017). Reasons for fertility desire and disinterest among Iranian married adults: A population-based study. *Payesh (Health Monitor)*, 16(5), 637-645. [http://payeshjournal.ir/browse.php?a\\_id=86&sid=1&slc\\_lang=en](http://payeshjournal.ir/browse.php?a_id=86&sid=1&slc_lang=en)
- Keshavarz, M., Shariati, M., Ebadi, A., & Behbudi Moghadam, Z. (2018). Desire and attitude to marriage among unmarried Iranian youth: A qualitative study. *International Journal of Women's Health and Reproduction Sciences*, 6(4), 425-431. <https://doi.org/10.15296/ijwhr.2018.71>
- Kolk, M. (2019). Weak support for a U-shaped pattern between societal gender equality and fertility when comparing societies across time. *Demographic Research*, 40, 27-48. <https://www.jstor.org/stable/26726991>
- Kravdal, Ø. (2002). The impact of individual and aggregate unemployment on fertility in Norway. *Demographic Research*, 6, 263-294. <http://www.jstor.org/stable/26348048>
- Lundberg, S., Pollak, R. A., & Stearns, J. (2016). Family inequality: Diverging patterns in marriage, cohabitation, and childbearing. *Journal of Economic Perspectives*, 30(2), 79-102. <https://doi.org/10.1257/jep.30.2.79>
- Mahmoudiani, S. (2020). Explaining the married women's fertility in reproductive ages in Iran using Hierarchical Linear Model. *Payesh (Health Monitor)*, 19(3), 289-297. <https://doi.org/10.29252/payesh.19.3.289>
- Morse, J. M. (1994). Designing funded qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 220-235). Sage Publications, Inc.
- Oshrieh, Z., Tehranian, N., Ebrahimi, E., Keramat, A., Hassani, M., & Kharaghani, R. (2019). Childbearing intention and its associated factors among adolescent girls: A narrative review. *Iranian Journal of Nursing and Midwifery Research*, 25(1), 7-11. [https://doi.org/10.4103/ijnmr.IJNMR\\_180\\_18](https://doi.org/10.4103/ijnmr.IJNMR_180_18)
- Razeghi-Nasrabad, h. B., & Abbasi-Shavazi, M. J. (2020). Ideal fertility in Iran: A systematic review and meta-analysis. *International Journal of Women's Health and Reproduction Sciences*, 8(1), 10-18. <https://doi.org/10.15296/ijwhr.2020.02>
- Roudi, F., Azadi, P., & Mesgaran, M. (2017). *Iran's population dynamics and demographic window of opportunity*. Working Paper 4, Stanford Iran 2040 Project, Stanford University. <https://iranian-studies.stanford.edu/iran-2040-project/publications/irans-population-dynamics-and-demographic-window-opportunity>
- Statistical Center of Iran. (2018). *Selected Findings of the 2016 National Population and Housing Census*. Statistical Center of Iran. [https://www.amar.org.ir/Portals/1/census/2016/Census\\_2016\\_Selected\\_Findings.pdf](https://www.amar.org.ir/Portals/1/census/2016/Census_2016_Selected_Findings.pdf)
- Statistical Center of Iran. (2020). 98 شیب نزولی میزان باروری کل ایران از 96 تا [Descending slope of the total fertility rate of Iran from 2017 to 2019]. <https://www.amar.org.ir/Portals/0/News/1399/khabar%20barvari.pdf>

- United Nations. (2017). *World Fertility Report 2015 - Highlights* (ST/ESA/SER.A/415). [https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/documents/2020/Feb/un\\_2015\\_worldfertilityreport\\_highlights.pdf](https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/documents/2020/Feb/un_2015_worldfertilityreport_highlights.pdf).
- United Nations. (2020). *World Fertility and Family Planning 2020: Highlights* (ST/ESA/SER.A/440). [https://www.un.org/en/development/desa/population/publications/pdf/family/World\\_Fertility\\_and\\_Family\\_Planning\\_2020\\_Highlights.pdf](https://www.un.org/en/development/desa/population/publications/pdf/family/World_Fertility_and_Family_Planning_2020_Highlights.pdf).
- Zhang, Y. (2018). *A qualitative study of Chinese women's fertility desire in light of the recent two-child policy*. [Master Thesis] Lund University. <https://lup.lub.lu.se/luur/download?func=downloadFile&recordId=8949908&fileId=8949911>
- Zhou, Y. (2019). The dual demands: Gender equity and fertility intentions after the one-child policy. *Journal of Contemporary China*, 28(117), 367-384. <https://doi.org/10.1080/10670564.2018.1542219>