Comparing Factors Influencing Fertility Desire Among Urban and Rural Families Referring to Healthcare Centers in Ferdows, Iran, in 2020

Azadeh Arasteh1,2, Amirhossain Akbariyan2, Fariba Asadi1,3

1Ferdows School of Paramedical and Health, Birjand University of Medical Sciences, Birjand, Iran
2Student Research Committee, Birjand University of Medical Sciences, Birjand, Iran
3School of Paramedical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Abstract

Background and aims: Fertility is among the major components of the population, the reduction of which can cause irreparable socioeconomic damage to the country. Unfortunately, the fertility rate is declining, and it is lower than the critical level in Iran. Therefore, this study aimed to investigate the factors influencing fertility desire in order to reveal more aspects of this issue.

Methods: This descriptive-analytical study included all the rural and urban families referring to healthcare centers in Ferdows, Iran, in 2020. The participants were selected using a multi-stage sampling method. Finally, 400 married men and women referring to the centers were assessed by the fertility desire scale (FDS). The data were analyzed using descriptive statistics as well as the Mann-Whitney and Spearman tests by SPSS 19.0.

Results: In this study, 81.2% of the participants were female, 52.5% of who aged 25-35 years old. The mean scores of fertility desire among urban and rural households were 66.69 ± 9.61 and 65.06 ± 9.08, respectively (P = 0.03). In all dimensions of the questionnaire except for childbearing worries, significant differences were observed between urban and rural households. These dimensions included positive childbearing motivations (P = 0.05), social beliefs (P = 0.04), and preferences (P = 0.004).

Conclusion: The results obtained from this study can be used in population policies in order to build culture, support parents, and increase childbearing desire, especially in rural areas.

Keywords: Factors, Fertility desire scale, Urban and rural families, Healthcare centers

Introduction

Population and related issues are among the multidimensional and complex topics of human societies affected by socioeconomic, cultural, political, and other factors. Extensive social and technological changes have recently occurred in families worldwide, and childbearing has been changed more than other family values, so the fertility rate which is lower than the critical level in Iran as a developing country is declining. Fertility is among the most important components of the population which plays a major role in the quantitative and qualitative transformation of the population of any country. Fertility changes play a greater role in determining the population size compared to mortality changes. Opportunities and motivations for fertility and childbearing greatly vary depending on the environment. The fertility rate began declining in Iran in the late 1980s such that it decreased by more than 50% over the course of a decade. Such a decline has never been recorded neither in an Islamic and developed country nor all over the world. The existing statistics in Iran indicates that the total fertility rate has decreased from about 7.7 children per woman in 1966 to 2.17 in 2000 and to 1.8 in 2006. Currently, the total fertility rate in Iran is 1.6. The childbearing desire was reported to be 46.4% and 53.6% among married women and men, respectively, in South Khorasan Province. In addition, the lack of desire to have children among married women and men was reported as 54.3% and 45.7%, respectively. Reduced fertility rate and disrupted age balance can cause irreparable socioeconomic damage to the country. Using contraceptives has increased from 37% in 1976 to 74.6% in 2000 and 77.42% in 2010. Studies in some countries such as Sweden and Russia have shown the positive effect of government incentives on increasing childbearing. However, a study in Iran indicated that 85% of men and 95% of women did not have a positive attitude toward socioeconomic incentives by the government and did not intend to shorten the pregnancy spacing and to increase the number of children. Hekmat et al investigated fertility motivations in urban and rural communities in Iran. Urban respondents reported emotional issues as the most important reason for childbearing, while rural

© 2022 The Author(s); Published by Shahrekord University of Medical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
respondents emphasized economic benefits and a sense of security as the main reason for childbearing. Fertility motivations and preferences and the ideals that parents consider are complex issues that have cultural, behavioral, and ideological roots that can be changed in the context of population transfer and socioeconomic development in different societies.

Fertility and childbearing desires are among the subsets of fertility preferences, so Miller believes that fertility preferences include three dimensions of childbearing desire, desired number of children, and desired spacing of childbearing. The couple’s ideal number of children and their pregnancy spacing preferences will play a decisive role in their desire for actual fertility. Mansournia and Khoshnevis reported that parents’ emphasis on achieving a specific gender composition of children leads to a desire for more fertility. Lorimer considers cultural contexts and values as the motivator of fertility desire. Values, norms, beliefs, lifestyle, and codes of conduct play a decisive role in the formation of values, norms, and ideals of childbearing in a society. Increasing maternal age in the first pregnancy, increasing the age of marriage, increasing the use of contraceptive methods, gender equality, empowering women in modern society, and socioeconomic aspects are other factors changing the fertility desire. Decreasing the emotional benefits of childbearing may indicate that couples have alternatives other than having children to fill their free time without having to spend exorbitant and lifelong costs. The issue of fertility decline in Iran is extremely important because Iran is a developing society and requires labor.

Previous studies have focused on differences in the fertility desires of couples. Due to the decrease in fertility rate and socioeconomic and cultural transformations that occurred in Iran in recent years, the present study aimed to identify the factors influencing childbearing desire among urban and rural households in Ferdows, Iran, to reveal more aspects of this issue. Implementing appropriate interventions in line with population growth policies requires examining the individuals’ views on fertility to clarify the factors leading to a decrease in childbearing despite the actual human desire to have children.

Materials and Methods

Study Population
This was a cross-sectional (descriptive-analytical) study. The study population included all the married women of reproductive age (15-49 years old) and married men whose wives were of reproductive age and referred to healthcare centers in Ferdows, South Khorasan province, Iran, in 2020.

Sampling Method
In this study, 400 individuals were selected using a multi-stage sampling method (urban = 250 and rural = 150). Eight health centers were randomly selected from the urban and rural health center list. Then, the qualified men and women referring to those centers were included in the study by convenience method in proportion to the population of households covered by that center.

Ethical Considerations
After getting Ethics Committee approval and a letter of introduction to the relevant authorities, the participants were reminded that their involvement is voluntary and were assured of confidentiality of their data. In the case of any questions or ambiguities about the questionnaire, a full explanation was provided by the researcher, and then the questionnaires were completed by participants.

Inclusion and Exclusion Criteria
Inclusion criteria were the ability to read and write in order to complete the questionnaire and lack of psychological problems. The exclusion criterion was an incomplete response to questions; accordingly, more than 10% of the questions remain unanswered and then excluded from the final analysis.

Data Collection Instruments
Data collection instruments included a demographic information checklist based on the subject of the study and the fertility desire scale (FDS), the validity and reliability of which were assessed by Naghibi et al in Iran. This scale included 19 items, each of which was rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The scale consisted of 4 subscales of positive childbirth motivations (items 1, 2, 3, 4, 7, 11, and 12), priorities (items 14, 15, and 18), concerns about childbearing (items 5, 6, 8, and 9), and social beliefs (items 10, 13, 16, 17, and 19). Items 1, 2, 3, 4, 5, 6, 7, 17, 18, and 19 were positively scored, while other items were scored in reverse. Naghibi et al confirmed its content, face, and construct validity (content validity index = 0.80 and content validity ratio = 0.62). Its reliability was obtained by Cronbach’s method. The Cronbach’s alpha coefficient of the subscales and internal correlation coefficient were reported as 0.83-0.86 and 0.88-0.92, respectively. In this study, the validity was confirmed by several relevant experts, and Cronbach’s alpha was obtained to be 0.72. Further, the minimum and maximum scores were 19 and 95, respectively.

Statistical Methods
The data were analyzed by descriptive statistics as well as analytical statistics including Mann-Whitney and Spearman tests (due to abnormality of variables) via SPSS 19.0, and the significance level was set at \( P < 0.05 \).

Results
In this study, 250 (62.5%) and 150 (37.5%) urban and rural households, respectively, were studied, 81.2% (n = 325) of whom were female and 18.8% (n = 75) were male. In terms of age, 52.5% (n = 210) of the participants were 25-35 years old, and 14.5% (83 people) were under 25 years old. In
addition, 66.4% (n = 259) of examined people had private houses and 27.2% (n = 106) had rental houses. Regarding the occupation, 61.8% (n = 247) and 15% (n = 60) were housewives and government employees, respectively.

The mean scores of fertility desire among urban and rural households were obtained as 66.69 ± 9.61 and 65.06 ± 9.08, respectively, and this difference was significant (P = 0.03). As presented in Table 1, there was a significant difference between urban and rural households in all dimensions of the questionnaire except for childbearing concerns (P < 0.05).

As Table 2 illustrates, in the dimension of positive childbearing motivations, urban and rural households highly agreed on “childbearing improves marital relationship among couples” and “life without children is meaningless”, respectively. In the dimension of childbearing concerns, the majority of urban and rural households agreed on “I do not want to have more children because I am worried about their future” and “I think if I have more children, I could not afford their living expenses”, respectively. Moreover, in terms of social beliefs, the majority of urban and rural households highly agreed on “I believe that parental support is necessary for the couples to have children” and “I think it is necessary to have a stable and secure job for childbearing”, respectively.

Considering the nature of the variables, the correlation between fertility desire and other variables was investigated by gender. According to Table 3, there was no significant correlation between fertility desires of men and women and the age of couples, number of marriages, age at the first marriage, duration of marriage, and number of children.

Discussion

The results revealed that the mean score of fertility desire among urban and rural households was significantly different. The demographic structure of society has recently undergone significant changes in Iran. To understand and clarify the reasons for childbearing desire and improve the current situation, this study focused on the central question “what are the factors influencing the childbearing desire in different urban and rural populations?” Childbearing is influenced by socioeconomic, political, and cultural factors and is highly associated with the attitudes and awareness of men and women.17

Inconsistent with the present study, in which the fertility desire of urban households was higher (66.69 ± 9.61) than that of rural households (65.06 ± 9.08), Tavousi et al reported that lack of desire for childbearing among urban families was 1.36 times higher than that among rural families.18 Likewise, Iman et al found a negative correlation between the urbanization rate and childbearing desire.19 Nowadays, desire or lack of desire for childbearing is not formed by chance, but it is based on eliminating or reducing a set of perceived needs and norms20 that was considered in the questionnaire employed in the present study. Fertility desire also may be influenced by behavioral factors for postponement of pregnancies. If personal or family conditions remain unfavorable, desires to postpone a birth persist and may lead to long birth intervals. In contrast, short birth intervals may be seen if conditions become favorable earlier than anticipated.21

The FDS used in this study, in addition to measuring the overall level of fertility desire, included four dimensions of childbearing concerns, positive childbearing motivations, priorities, and social beliefs. There was no statistically significant difference between urban and rural households in the childbearing concern dimension; however, significant differences were observed in other dimensions. Childbearing concerns are negative consequences of having children and may discourage couples from having children. This dimension suggests the potential feeling of lack of self-efficacy and self-confidence and includes physiological aspects, psychological characteristics, and individual experiences; however, it is not affected by the living environment.22 Therefore, as observed in the present study, it was expected that there was no difference between urban and rural households in this regard. Schwartz et al found that increasing self-efficacy can lead to a positive attitude toward parenting and improve individuals’ psychological state,23 thus reducing individuals’ anxiety about childbearing and promoting childbearing desire.

In the dimension of childbearing concerns, urban and rural households highly agreed on “I do not want to have more children because I am worried about their future” and “I think if I have more children, I could not afford their living expenses”. It should be taken into account that the most important consequence of modernity in relation to fertility in Iran was having a negative outlook to the future.15,23

Consistent with our study, Razavizadeh et al showed that parents’ concerns about economic and welfare issues can reduce childbearing desire and enhance the desire for having fewer children or delayed childbearing.24 Further, Motlagh et al reported economic problems as an important reason for the lack of desire to have children.25 Tavousi et al demonstrated that the fertility desire of households with high income was higher than that of households with low income in Tehran.26 In line with the present study, concerns about securing children’s educational future and job, lack of sufficient income, and growing economic problems have been reported in various studies as the factors leading to a decrease in childbearing desire.27

The score of the positive childbearing motivation dimension among urban households was higher than that among rural households, suggesting the elements

<table>
<thead>
<tr>
<th>Variable</th>
<th>Urban Mean ± SD</th>
<th>Rural Mean ± SD</th>
<th>P Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive childbearing motivations</td>
<td>28.03 ± 4.68</td>
<td>27.21 ± 4.59</td>
<td>0.05</td>
</tr>
<tr>
<td>Childbearing worries</td>
<td>12.52 ± 3.61</td>
<td>12.73 ± 3.05</td>
<td>0.54</td>
</tr>
<tr>
<td>Social beliefs</td>
<td>13.52 ± 3.6</td>
<td>12.99 ± 3.19</td>
<td>0.04</td>
</tr>
<tr>
<td>Preferences</td>
<td>12.60 ± 2.05</td>
<td>12.12 ± 1.78</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>66.69 ± 9.61</td>
<td>65.06 ± 9.08</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Note: SD: Standard deviation.
that motivated the couples to make decisions regarding childbearing and the states that were stimulated by the environment. Further, the values, norms, and preferences of urban women were different from those of rural women.

Regarding positive childbearing motivations, the urban and rural households highly agreed on "life without children is meaningless" and "childbearing improves marital relationships among couples", respectively. Consistent with the present study, Montazeri et al found that the couples who desired to have children reported that being interested in children (93.5%) and strengthening family ties (65.2%) were the major childbearing motivations. Torkian Valashani et al estimated the effect of having children on strengthening the family to be 58.65%.

In line with the present results, the studies have reported that couples with children enjoy life better and feel happier.

| Table 2. Average and Frequency of Questionnaire Items Based on Dimensions and Type of Residence |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Item                            | Urban Mean ± SD | Urban Agree No. (%) | Urban No idea No. (%) | Urban Disagree No. (%) | Rural Mean ± SD | Rural Agree No. (%) | Rural No idea No. (%) | Rural Disagree No. (%) |
| Positive childbearing motivations | Life is meaningless without children. | 4.61 ± 0.89 | 230 (92.4) | 7 (2.8) | 12 (4.8) | 128 (85.3) | 14 (9.3) | 8 (5.4) |
|                                | Having a child at home is a source of God's blessing | 3.77 ± 0.53 | 199 (80.6) | 28 (11.3) | 20 (8.1) | 118 (78.7) | 24 (16) | 8 (5.3) |
|                                | Having a child is necessary for the maintenance of parents in old age. | 4.16 ± 0.91 | 200 (81) | 35 (14.2) | 12 (4.8) | 113 (76.4) | 33 (23.2) | 2 (1.4) |
|                                | Having a child improves marital relations between spouses. | 4.19 ± 0.97 | 240 (96.4) | 7 (2.8) | 2 (0.8) | 138 (92) | 12 (8) | 0 (0) |
|                                | Preventing pregnancy is an intervention in God's work. | 3.62 ± 1.24 | 138 (55.7) | 56 (22.6) | 54 (21.7) | 62 (41.6) | 46 (30.9) | 41 (27.5) |
|                                | Having more children will make life happier. | 3.85 ± 1.18 | 171 (69.3) | 31 (12.5) | 45 (18.2) | 96 (64.5) | 23 (15.4) | 30 (20.1) |
|                                | Having more children is a source of encouragement in life. | 4.09 ± 1.02 | 193 (78.2) | 26 (10.5) | 28 (11.3) | 101 (66.3) | 36 (24) | 13 (8.7) |

| Table 3. Correlation Between the Fertility Desire and Other Quantitative Variables |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Variable                        | Age            | Spouse Age     | Number of Marriages | Age of First Marriage | Duration of Marriage | Number of Children |
| Women                           | Statistics value | P value* | 0.07 | 0.07 | 0.06 | -0.002 | 0.06 | 0.08 |
| Men                             | Statistics value | P value* | 0.05 | 0.07 | 0.17 | -0.12 | 0.17 | 0.16 |

Note: * Spearman tests.
than families without children. They believed that having children is a long-term investment in happiness and has many physical and psychological benefits.26

In terms of social beliefs, the urban and rural households highly agreed on “I believe that parental support is necessary for the couples to have children” and “I think it is necessary to have a stable and secure job for childbearing”, respectively. Khadivzadeh et al reported that fertility preferences of Iranian couples are affected by personal motivations and social interactions, suggesting that even if there is a negative motivation, the couples prefer to have a certain number of children due to social pressures and support as well as the psychological atmosphere created by those around them.27,28 An Australian study among 18 to 30-year-old married females highlighted some factors as predictors of women’s intentions to delay childbearing which included psychosocial predictors of attitude, pressure from others, and perceived self-confidence.29 In line with the results of this study, Rad et al maintained that a supportive environment provides a kind of social capital in relation to fertility that increases childbearing desire.30 In their study, Razeghi et al identified job stability and financial independence as determinant factors for a family’s economic security and the basic prerequisites for parenthood.8

Conclusion
To increase the childbearing rate and support couples, especially in rural households, it is necessary to promote the joy of parenthood and reduce couples’ negative perceptions of having more children and their future through economic prosperity, promoting supportive policies, and building a culture in society. The present study, like any other studies, had strengths and limitations. Using a new questionnaire with an analytical approach can be mentioned as the strength of this study. The limitation of this study was that the number of male participants was limited. To address this shortcoming, it is recommended that more male participants be considered in future studies, and interventional studies be conducted in this field. These results can provide the basis for applying interventions and theories of health education and promotion in the field of reproductive behaviors in future research.

Conflict of Interest Disclosures
The authors declare that there is no conflict of interests.

Ethical Approval
This study was conducted as a student project with an ethics code of IR.BUMS.REC.1399.149 and was financially supported by Birjand University of Medical Sciences.

References


