*Original Article*

# Socio-Cultural and Economic Factors Influencing Fertility Behavior in staffs working in health centers in Juybar, Iran: A Cross-Sectional Study

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## Abstract

***Background and Purpose:*** Fertility behavior is affected by various factors. Health workers have a great share in educational programs on fertility behaviors, hence identifying the fertility behaviors of staffs working is necessary. The aim of this study was to assess socio-cultural and economic factors influencing staffs fertility behavior in health centers in the northern part of Iran.

***Materials and Methods:*** This cross-sectional study was performed through census on 118 health workers from healthcare services in Juybar. A valid and reliable questionnaire including demographic characteristics and 27 closed questions about the participant's attitudes toward fertility (cultural, social, economic, and individual) in the Likert scale were used. The Cronbach's alpha coefficient was found to be 0.75. The attitude score was also ranged from 27 to 135. The T-test and one-way analysis of variance (ANOVA) were performed in SPSS (V17).

***Results:*** There was no statistically significant difference between the tendency to fertility and the variables, such as wife's job, wife's educational level, abortions, the number of pregnancy, and the number of alive children. However, there was a statistically significant difference between tendency to fertility based on cultural attitude and residency status (p=0.04), income (p=0.04), and work experience (p=0.005).

***Conclusion:*** The findings from our study support that, various factors play important roles in the formation of fertility tendencies, among the most important ones are individual factors. The results also revealed that making any demographic and educational policy by the stakeholders requires that all factors be taken into consideration.

***Key words:*** Fertility; Behavior; Socio-cultural; Economic

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## 1. Introduction

Fertility behaviors are affected by various factors in a society. It is very essential to recognize social, economic, mental, and cultural factors which influence fertility. On the basis of existing evidence about the population policies in different countries, some effective factors are implemented about decreasing and increasing fertility rate (1). Nowadays, the age pyramid of Iran's population is moving from youth to elderly period. That is to say, if we consider the year 1986 as the time of regular decline in Iran's fertility rate, the structure of Iran's population will be completely old up to the end of the first quarter of 2046 (1).

In 2050, the world population growth is predicted to come almost to a halt. Shortly thereafter, it may well start to shrink (2). A major reason behind this shift is the fertility decline that has taken place in many developed countries. According to the reports of World Bank, in the next 20 years, the growth of Iran's population will decline to below 1%. Accordingly, the population growth has been declined sharply during the recent years, and it is expected that this condition will continue in the next two decades (3, 4). Therefore, based on the information gathered through population and housing census in 2011, the general fertility rate has decline to less than 2.1 children per woman. According to the demographic studies and the viewpoints of demographers, if the current situation of fertility continues, the population growth of the country will become zero during the years 2036-2041; and finally, we will experience a negative population growth (5).

The background studies indicated that having or not having tendency toward fertility in a family is rooted in various factors including family's attitude toward positive or negative values of children, the number of children, family's welfare, economic status, urbanization, economic activity, and female status, particularly female education, and other individualistic and demographic variables (6). Also, data are often incomplete, causal relations unproved, and the role of social norms and culture difficult to account for. Investigating reasons for the decline in fertility more closely will require further surveys.

Nowadays, the low tendency toward fertility, delay in marriage, and some other issues are added to the country's social problems which need to be taken into consideration, and there should be an attempt to control and manage these phenomena. Also, the United Nations reported that up to the year 2021, about 75% of Iran's population will reside in cities and living in the cities will affect the family's attitudes to fertility behavior (2). Therefore, the Ministry of Health and Medical Education (MoHME) policies are announced on fertility and enhancement of society's knowledge about population policies and healthy fertility (7). Among the approaches which can help these conditions be provided, we can mention education and promotion of staff's abilities about providing the required services for healthy fertility. The healthy fertility services lead to a decrease in high-risk pregnancies, illegal abortions, time interval between first pregnancy and couples marriage and the interval among children (8).

Few published studies in Iran have reported the potential influence of health staffs' attitudes toward fertility and healthy fertility, and there is a lack of investigation in this area. Therefore, the aim of the present study was to assess the attitudes of

the staff about fertility and to investigate the influencing factors of fertility behavior.

## 2. Materials and Methods

This cross-sectional study was conducted with the participation of health workers from health centers (doctors, nurses, health workers, midwifes, and other professionals) in Juybar, a city in the north of Iran. This city is located in Mazandaran province and has a population about 75,000 people. Due to the limitations of the sample, all the professionals working in the health center entered into the study through census in 2015. Of the 203 health workers, 118 (58%) agreed to participate in this study.

The data were collected using a self-design questionnaire. The questionnaire included closed questions on demographic characteristics and the individuals' attitudes toward fertility or child bearing. Among the 27 questions regarding attitude, 4 were about social factors, 6 about cultural factors, 5 about economic factors, and 16 questions were about individualistic factors (5 questions were shared between individualistic factors and the other three factors). It should be mentioned that the attitude score was ranged from 27 to 135.

The answers to questions were scored based on likert scale: "completely agree", "agree", "no idea", "disagree", and "completely disagree" equal to 5, 4, 3, 2, and 1, respectively. Participation in the study was voluntary. The validity of this questionnaire was also verified through a research panel and considering the experts' opinions. Most of the attitude questions were extracted from the paper by Tavousi and colleagues (9). Then, for measuring the questionnaire's reliability, the Cronbach's alpha coefficient was calculated, and the acceptable alpha coefficient was found to be 0.75. The T-test and one-way analysis of

variance (ANOVA) were then applied through SPSS [17].

## 3. Results

In this study, the participants' average age was 35.02±8.15 years old, and majority of them aged between 30 to 40 years old. About 74% of the participants were also women, and 86.4% of the staffs were married. Almost 71% of the samples were living in cities, 62.71% of them had academic education, and 41.52% of the staff was working in healthcare centers. The work experience of 51.7% of the staff was less than 10 years, and 75.4% of them had an income higher than 10,000,000 Rials (Table 1).

**Table1.** Demographic characteristics among the staff working in health centers

| Variable | | Number | percent |
|---|---|---|---|
| Age (years) | 20-30 | 37 | 31.4 |
| | 30-40 | 53 | 44.9 |
| | Over 40 | 28 | 23.7 |
| Sex | Female | 87 | 73.7 |
| | Male | 31 | 26.3 |
| Residency Status | Urban | 72 | 61 |
| | Rural | 46 | 39 |
| Literacy Status | High school and diploma | 44 | 37.28 |
| | Associate Degree | 12 | 10.16 |
| | Bachelor of science | 46 | 38.98 |
| | Master's degree or higher | 16 | 13.55 |
| Marriage Status | Single | 16 | 13.6 |
| | Married | 102 | 86.4 |
| Occupation | Health worker | 70 | 59.3 |
| | Midwife | 24 | 20.33 |
| | Physician | 10 | 8.47 |
| | Other professionals ( mental health, Laboratory and …) | 14 | 11.86 |
| Work Experience (years) | <10 | 61 | 51.7 |
| | 10-20 | 39 | 33.1 |
| | 20-30 | 18 | 15.3 |
| Monthly Income ($) | <189 | 5 | 4.2 |
| | 189- 314 | 24 | 20.3 |
| | >314 | 89 | 75.4 |

Most of the participants had one or two children (54%), and the majority of them (85%) mentioned that both parents (husband and wife) had decided to have a child (table 2).

**Table 2.** The grade of cultural, social, economic, and individualistic attitudes according to demographic variables

| Variables | | N | Cultural | | Social | | Economic | | Individual | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Mean± SD | P-value | Mean± SD | P-value | Mean± SD | P-value | Mean± SD | P-value |
| Sex | Man | 31 | 0.15±0.12 | 0.21 | 0.13±0.13 | 0.32 | 0.06±0.12 | 0.5 | 0.03±0.08 | 0.7 |
| | Female | 87 | | | | | | | | |
| Marriage status | Single | 16 | 0.23± 0.15 | 0.15 | 0.12±0.17 | 0.48 | 0.34±0.16 | 0.03 | 0.13±0.11 | 0.23 |
| | Married | 102 | | | | | | | | |
| Residency Status | Urban | 72 | 0.22±0.1 | 0.04 | 0.12±0.12 | 0.29 | 0.06± 0.11 | 0.5 | 0.08±0.07 | 0.28 |
| | Rural | 46 | | | | | | | | |
| Place of work | Health home | 49 | 4.12±0.52 | 0.09 | 3.3±0.64 | 0.98 | 4.18±0.63 | 0.47 | 3.41±0.46 | 0.29 |
| | Rural center | 19 | 4.15±0.68 | | 3.23±0.88 | | 4.15±0.6 | | 3.4±0.37 | |
| | Urban center | 31 | 3.87±0.56 | | 3.6±0.59 | | 4.96±0.65 | | 3.24±0.39 | |
| | City Health center | 19 | 3.84±0.6 | | 3.3±0.47 | | 4.1±0.45 | | 3.28±0.33 | |
| Occupation | Behvarz | 49 | 4.1±0.52 | 0.09 | 3.3±0.64 | 0.81 | 4.18±0.63 | 0.35 | 3.41±0.46 | 0.35 |
| | Health worker | 29 | 3.8±0.53 | | 3.2±0.63 | | 4.13±0.58 | | 3.31±0.3 | |
| | Medical staff | 40 | 4±0.65 | | 3.3±0.67 | | 4±0.59 | | 3.29±0.42 | |
| Literacy Status | Diploma and lower | 44 | 0.19±0.11 | 0.08 | 0.06±0.12 | 0.26 | 0.04±0.11 | 0.72 | 0.11±0.07 | 0.13 |
| | Higher than diploma | 74 | | | | | | | | |
| Decision to have a child | By person or her/his spouse | 17 | 0.01±0.15 | 0.25 | 0.07±0.17 | 0.76 | 0.14±0.16 | 0.36 | 0.02±0.1 | 0.79 |
| | Both them | 101 | | | | | | | | |
| The number of abortion | No | 95 | 0.18±0.13 | 0.17 | 0.17±0.15 | 0.2 | 0.02±0.14 | 0.86 | 0.04±0.11 | 0.43 |
| | yes | 23 | | | | | | | | |
| Sex child | The daughter | 46 | 4±0.49 | 0.08 | 3.32±0.57 | 0.07 | 4.02±0.58 | 0.3 | 3.31±0.31 | 0.09 |
| | The son | 54 | 3.9±0.57 | | 3.15±0.63 | | 4.12±0.57 | | 3.31±0.4 | |
| | The daughter and son | 18 | 4.2±0.75 | | 3.54±0.76 | | 4.27±0.75 | | 3.54±0.61 | |
| The number of live births | One | 83 | 0.21±0.11 | 0.06 | 0.1±0.13 | 0.43 | 0.12±0.12 | 0.3 | 0.15±0.09 | 0.06 |
| | Two and over | 35 | | | | | | | | |
| The number of pregnancies | Without child | 39 | 3.8±0.52 | 0.29 | 3.24±0.53 | 0.97 | 3.97±0.48 | 0.21 | 3.22±0.4 | 0.06 |
| | One | 32 | 4.09±0.58 | | 3.29±0.63 | | 4.09±0.68 | | 3.34±0.32 | |
| | Two | 32 | 4.06±0.66 | | 3.28±0.72 | | 4.18±0.64 | | 3.41±0.44 | |
| | Three and over | 15 | 4.13±0.51 | | 3.33±0.8 | | 4.33±0.61 | | 3.52±0.49 | |
| Income (monthly) | 600> | 5 | 4.4±0.54 | 0.04 | 3.25±0.79 | 0.37 | 4±0.7 | 0.74 | 3.55±0.51 | 0.36 |
| | 600-1000 | 24 | 3.7±0.57 | | 3.44±0.67 | | 4.04±0.55 | | 3.27±0.42 | |
| | 1000< | 89 | 4±0.57 | | 3.23±0.63 | | 4.13±0.62 | | 3.35±0.41 | |
| Work experience (years) | 10> | 61 | 3.86±0.56 | 0.005 | 3.28±0.55 | 0.98 | 4.03±0.6 | 0.18 | 3.24±0.35 | 0.1 |
| | 10-20 | 39 | 4.25±0.49 | | 3.26±0.64 | | 4.12±0.61 | | 3.44±0.36 | |
| | 20< | 18 | 4±0.68 | | 3±0.92 | | 4.33±0.59 | | 3.49±0.6 | |

In the present study, there was no statistically significant difference between the tendency to fertility and the variables, such as wife's job, wife's educational level, baby's gender, number of pregnancies, number of live children and abortions. However, there was a statistically significant difference between tendency to fertility based on cultural attitude and residency status (p=0.04), income (p=0.04) and work experience (p=0.005). Also, there was a statistically significant difference between the marriage status (p=0.03) and tendency to fertility based on economic

attitude. However, the tendency to fertility based on cultural attitude was contributed to different income (P=0.04) as well as work experience (P=0.005); this difference was recognized by Tukey test which revealed the difference between individuals.

The total mean of attitudes toward fertility was 27.63±3.30. The mean score of cultural attitude was 21.7±3.3, social attitude 13.13± 2.59, economical attitude 22.17± 3.42, and finally the mean score of individualistic attitude 53.54± 6.68.

## 4. Discussion

The results of the present study revealed that individualistic factors had more important roles in fertility behavior than other factors. This finding matched the results of the study conducted by Shiri and Bidarian (10). Tendency to fertility in both genders, men and women, is also reported in various other studies. Determining the number of children is not just dependent on women's attitudes, because women are not the only decision-makers on this issue. The results of some studies indicated that even though family life is of great significance for majority of women, only minority of them agree to ignore other opportunities in favor of having a child(11).

Another effective factor on fertility is typically cultural factor which is created by the influence of cultural globalization. According to the society's cultural environment, women have a greater social role than that in the past decades and having several children in a family is in contrast with their new roles in society. Consequently, cultural attitudes are moving toward having two children. This issue is rooted in those beliefs which are institutionalized among people through the education provided by service providers in healthcare centers. Therefore, we should not hasten to achieve new population policies.

The level of people literacy plays a role in their culture. In this study, there is no a significant relationship between the tendencies to fertility based on cultural attitude to literacy level. The findings of the present study were consistent with the results of Sorosh and Bahrani (2013) study in that there was a negative correlation between women's education and their fertility (11). In a study conducted by Ebrahimzadeh, it was indicated that among the women working in training and education system, there was a statistically significant difference between cultural factors and the fertility rate(12). This matter can be rooted in various factors. Accordingly, one of the main reasons to justify the issue lies in the fact that more opportunity for women's education has currently been provided. Improvement in educational level would make the individuals postpone their marriage or child bearing, because they think that matrimonial problems will be in contrast with their education. It will then lead to a decrease in fertility period among women. Therefore, the development of any policy which can decrease the individuals' worries about the contrast between education and fertility will make women more willing to make a new family and have child bearing experience along with education.

Several studies revealed that economy and socio-political changes affect the fertility rate (13). Sociologists believe that if a country has an advanced level of socio-economic development, it is the individualistic motivations which affect the fertility behaviors, whereas in developing countries, it is the institutions and

regulation of the society which influence the fertility behaviors (14).

In a study conducted by Ebrahimzadeh, it was indicated that there was a statistically significant difference between socio-economic factors and fertility rate among women working in education and training system (12). In addition, regarding this issue, Shiri and Hosseini reported that lack of attention to socio-economic conditions is considered as the most important and effective factor on reluctance to fertility (8, 10). In the present study, the individuals' socio-economical abilities had no statistically significant difference with tendency to fertility, a finding which matched with the results of the study conducted by Froozanfar and Tavousi(9, 15). The reason for this contrast may lie in the fact that, more than 80% of the participants were official employees, and they could probably have children considering their own economic support. It is clear that economic issues are of considerable significance which will influence an individual's life, so if a person has a part-time job or is not regularly employed, she may fear losing her job. Based on the findings, the majority of women who use 6 to 9 months' vacation (rest) for the delivery would encounter problems while going back to work. Therefore, this issue decreases their tendency toward fertility. In general, the provinces in Iran with a high rate of job opportunities for women were found to have lower fertility rate, while the rate of using contraceptive methods in those provinces is usually higher than the other provinces in the country.

Therefore, due to the problems that woman face in the workplace, most of them do not tend to have children after marriage. In most of the cases, women delay their child bearing or believe that one child suffices, so that they can balance their duties at home and workplace. This fact has made women change their approach toward fertility and to choose between only two options of having a job and being a mother, in order not to lose their jobs.

## 5. Conclusion

The results of the current study revealed that, various factors play role in tendency to fertility. According to the conducted investigations, it was predicted that each Iranian family will have one or two children in near future. It was also revealed that making any demographic and educational policy by stakeholders requires that all cultural, economic, social, and individualistic factors to be taken into consideration.

## Conflict of interests

The authors declare that they have no competing interests.

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