

## Factors Affecting the Decline in Childbearing in Iran: A Systematic Review

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### Abstract

**Introduction:** The decline in fertility and childbearing tendency in Iran is due to various demographic, economic, social, and cultural variables. The present research was conducted to review studies carried out on factors affecting the decline in childbearing. **Methods:** This systematic review searched for articles published from 2011 to 2017 in all the available Iranian and foreign databases, including SID, Magiran, Irandoc, Medlib, Pubmed, Google Scholar, Science Direct, and Proquest using the following keywords, "childbearing", "fertility", "fertility decline" and "population decline". The search ultimately led to the inclusion of 53 studies.

**Results:** The main factors affecting the decline in childbearing discussed in the 53 reviewed articles were divided to three general categories: 1. Personal and family factors, including aging, older age at marriage, current number of children, the duration of marriage, the mean birth spacing, gender preferences, hopefulness, marital satisfaction, and quality of life, 2. Socioeconomic factors, including social support, education, occupation and social participation, especially of females, place of residence and the effect of social networks, 3. Cultural factors, including modernity, urbanization and industrialization, attitude change towards the value of children, changes in family values and religion.

**Conclusions:** To intervene in the decline in childbearing and to increase the success rate of the designed plans and strategies, policy-makers and planners should provide strategies to deal with all the three noted groups of factors affecting childbearing.

## INTRODUCTION

In the recent years, dramatic demographic changes have occurred around the world. One of these changes is the unprecedented decline in childbearing throughout the world [1]. In parallel to these changes, Iran has also experienced vast changes and has witnessed a surprising decline in its fertility rate over the last three decades [2]. The fertility decline from about seven children per woman in 1980 to 1.9 in 2006 confirms this point. In fact, since 2006, the total fertility rate dropped to below replacement level fertility. Moreover, the average household size of 5.1 in 1986 fell to 4 in 2006 and to 3.5 in 2011. Then, from 2011 to the pres-

ent day, the number of households with 3 people increased and a substantial increase was also observed in the number of households with 2 people, i.e. childless families [3, 4]. The continuous decline in fertility and the transition from natural to controlled fertility gradually transforms the population's age structure from young to old. As a result, the historically wide-based population age pyramid has transformed due to the decline in fertility in the last two decades and a dent has formed at its base. The persistence of the current trend of fertility in Iran will mean a substantial increase in the 50- to 64-year-old population by 2050, and an aging

population will emerge in Iran. The failure to adopt measures for increasing the population and replacing the young population will soon cause the country numerous problems in terms of production and economic prosperity, which will lead to the need for accepting foreign labor and the introduction of unhealthy subcultures and a rise in moral and social deviance in the society. With the gradual changes in the population age pyramid and its economic, social, cultural, and security implications for the country, it is necessary to identify factors that directly and indirectly affect these conditions and influence childbearing and reproductive behaviors, ideals, and desires of females and families, and to base the country's population policies on these factors [5-7]. The revision, development, and implementation of a successful population policy to increase fertility rate relies on policy-makers' knowledge of young couples' reproductive behaviors and preferences. Given the rapid decline in the fertility rate of Iran even below replacement level fertility, the question facing population researchers and policy-makers concerns the prospects of fertility and the determinants of future reproductive behaviors [8]. This systematic review article therefore seeks to investigate factors affecting the decline in fertility and childbearing in Iran during years 2011 to 2016, so that the results could be used by population planners and policy-makers.

## METHODS

The present study reviews studies conducted on factors affecting the decline in fertility and childbearing in Iran. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was used for determining the problem, data collection, and analysis and the interpretation of the findings. The search for articles began according to the PRISMA protocol. The electronic search was conducted within a limited time span, so that all the articles published

during 2011 to 2016 were searched. The national databases used for carrying out this search included Magiran, Iran-doc, Medlib, Google Scholar, and SID (the ACECR database) and the foreign databases included Pubmed, Science Direct, and Proquest. To broaden the extent of the search in national sources, the general keywords 'childbearing', 'fertility', 'fertility decline', 'population decline' and their possible combinations were used in Persian, while 'and' and 'or' were used as operators. For the search carried out in the English databases, the equivalent English MeSH of the keywords was used, including 'childbearing', 'fertility', 'population reduction', 'population decrease' and 'population growth' and their possible combinations using 'and' and 'or' operators. For the search in Google Scholar, keywords were entered in the title section and all the articles available in the database were assessed. First, all the articles related to childbearing and fertility in Iran were collected. At this stage, all the articles containing the noted keywords in their title or abstract were included in the preliminary list, and irrelevant or repeated articles or those with insufficient data were excluded. To prevent bias, the search was carried out independently by two researchers. In the first stage, 12174 articles published between 2011 and 2016 were collected, 12 095 of which were excluded after the review of their titles and abstracts due to being repetitive (having the same title, authors and publication journal) or irrelevant, and four articles were excluded due to the unavailability of their full text. According to the inclusion criteria, all the descriptive-analytical, cross-sectional and qualitative studies conducted between 2011 and 2016 that addressed the factors affecting childbearing in Iran were included. In the third stage, the full text of the remaining 75 articles was assessed, and 22 of the articles were excluded due to presenting results unrelated to the subject of the present study or their poor quality, and 53 articles remained in the final list.

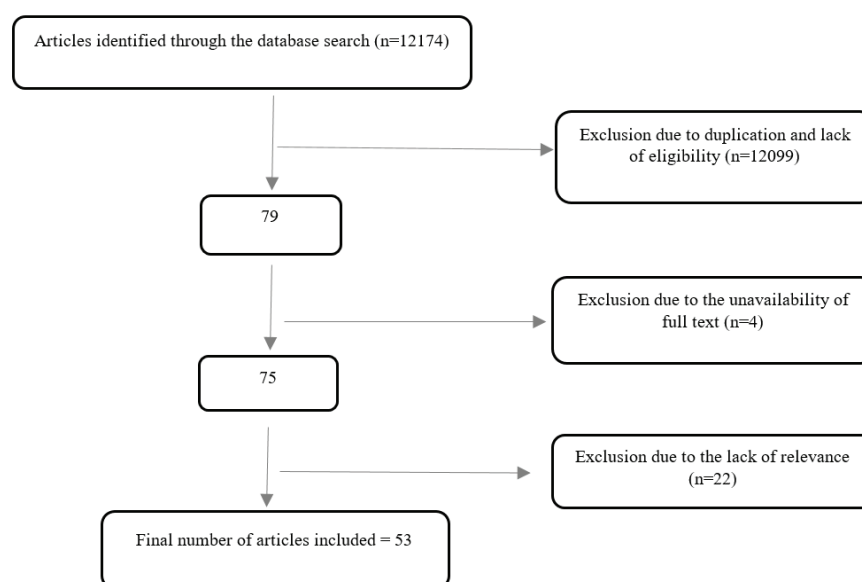


Figure 1: Article Selection Flowchart

## RESULTS

A study conducted by Kariman et al. (2016) showed that factors, such as age at marriage, marital satisfaction, social support, expectancy, and quality of life directly affect the time of the first childbearing [9], which suggests that the male partner's age at the time of marriage has the most direct effect on the process of childbearing decision-making. Marital satisfaction, social support, economic status, and quality of life were among other factors that affected male's decision-making [10]. In one study, Siahpoush and Boroumand argued that childbearing tendencies are positively and significantly related to gender preferences yet negatively and significantly to adherence to traditions, education, lifestyle, and socio-economic status [11]. A study conducted by Afshari (2016) showed that changes in traditional beliefs and increase in female's education affect fertility by postponing the age of marriage [12]. The results of a study conducted by Foroutan et al. (2016) showed that age, duration of marriage, current number of children and the ideal gender composition of the children, attitude towards the value of children, and attitude toward gender roles are the main determinants of childbearing [13]. In another study, Kalaei and Yaghoubidoust (2015) showed that female's childbearing tendencies are related to nationality, religion, and demographic and socioeconomic factors [14]. The results obtained by Aslangir and Shaygan (2015) showed that the attitude towards the number of children is associated with religiosity and self-attention, leisure time activities, children's schooling and education costs and female's financial independence [15]. In another study, Razavizadeh et al. (2015) argued that child-oriented (education) and parent-oriented (economic, welfare, and limiting) concerns are a cause of the small number of children and the delays in childbearing [16]. The results obtained by Piltan and Rahmanian (2015) showed a significant relationship between childbearing tendencies and childrearing problems, social participation, access to food, and religiosity [17]. The results of a study conducted by Rastegar-Khaled and Mohammadi (2015) showed that more religious cities with the least degree of secularism and individualism and the greatest attention to family values have the highest fertility rates [18]. In a study conducted by Kaveh-Firouz and Karami (2015), the results suggested that educated or employed females have less time for becoming mothers and prefer to have their fertility rate reduced and their childbearing delayed for the sake of socioeconomic gain and status [19]. The results obtained by Iman et al. (2015) showed that adolescent female's rate of marriage and childbearing reduces with the increase in urbanization and female's education and employment [20]. In a study conducted by Derahaki (2015), an ideal fertility was found to be related significantly to independence, the attitude toward children's economic expenses, and the husband's education [21]. The results obtained by Mahmoudian et al. (2015) showed that the ideal fertility among villagers is significantly affected by education, occupation, and family income [22]. A study conducted by Golpaygani (2015) found that changes in lifestyle, the high degree of individualism, and poor accountability have the biggest share in the changed attitudes of Iranian families towards fertility and their preferences for small households over the last 20 years [23]. In another study, Azmoudeh et al. (2015) argued that childbearing intentions have a significant relationship with

the number and gender composition of the previous children and the ideal gender composition of the children [24]. The results obtained by Kariman et al. (2014) showed that age at marriage is the most effective predictive factor of the timing of childbearing. Marital satisfaction, the perception of social support and the attitude towards life have an inverse effect on the timing of motherhood [25]. The study also found that female's concerns when deciding to have children could be categorized to four groups for the most part, including fear, uncertainty, hope, and financial security. Concerns about one's own prospects or the future security of the child are the main concerns of females in their decision to have children [26]. A study by Khadivzadeh et al. (2015) showed that the decision to have the first child is affected by the husband and wife's relationship and their evaluation of their economic status, child rearing ability, and health-related issues [27]. A study conducted by Haddad and Kabiri (2014) showed that the desire to have children is reduced in educated females, who have a high bargaining power [28]. The results obtained by Khadivzadeh and Arghavani showed that people with strong religious beliefs have a greater motivation for childbearing and their ideal number of children is larger [29]. In another study, Jahromi et al. (2014) showed that different factors affect families' childbearing decisions, including welfare-related factors (low wages and income), education-related factors (the lack of time for helping out the children), social factors (society's conditions) and personal factors (anxiety and stress about the child's prospects) [30]. Kariman et al. (2014) confirmed three themes that explained female's experiences and feelings regarding their childbearing decisions, including assurance and satisfaction as opposed to doubt and hesitation, silent decision-making, and bargaining around a common two-sided paradigm [31]. The results obtained by Ishaghi et al. (2014) showed that intra- and inter-occupational challenges faced by working females reduced their childbearing tendency [6]. According to the results obtained by Jokar (2014), modernity, increased age at marriage and divorce, and society's belittling of motherhood are among factors contributing to the population decline [32]. Ojaghlo et al. (2014) argued that female's experiences with globalization along with their greater awareness and expectations and the change in their role and status after the Islamic Revolution have affected their assessment of children's value and reproductive behaviors [33]. A study conducted by Abbasi-Shavazi and Khani (2014) showed that female's education and age, the gap between their real and expected economic status, and the fact of economic insecurity have led to the current lower fertility rates and the smaller ideal number of children among them [34]. In another study, Razeghi-Nasrabad and Saraei (2014) argued that the differences in the mean value of children during different decades (the 60s, 70s, and 80s) still remains statistically significant. Much of the difference between contemporaries is due to education [35]. The results obtained by Mahmoudian-Gilani (2014) showed that female's ideal fertility is lower in educated females with a high family income. Also, females with particular gender preferences have a greater desire to have children [36]. A study by Hosseini and Bagi (2014) showed that the likelihood of stopping childbearing is greater among females, who are employed, have more living children, are at the end of their reproductive period, rate the benefits of having children less than their expenses, and tend less to prefer boys over girls

[37]. The results obtained by Shahbazin et al. (2014) showed that female's fertility rate is related significantly to the couple's education and place of residence and their number of male offsprings [38]. According to the results obtained by Mousavi and Sadat-Ghafelehbashi (2014), economic factors affect young families' negative attitude towards childbearing more than other factors, such as beliefs, culture, and physical-cognitive identity [39]. In another study, Hosseinzadeh et al. (2014) showed that only the variable of age at marriage directly affects fertility while the other variables (female's age, mean birth spacing, gender preferences, attitude toward children's benefits, and socioeconomic status) have an indirect effect. They also found that ethnicity had both a direct and an indirect effect on fertility [40].

Naghdi and Zare (2013) also showed that age at marriage, the duration of marriage, having lived on the fringes, the ideal number of children, gender preferences, attitude toward contraceptives, education, marital satisfaction, and social origin significantly affect fertility. Nonetheless, social security, social respect, birth spacing, and employment did not significantly affect fertility [41]. The results obtained by Keshvarz et al. (2013) showed that delayed childbearing is associated with variables, such as the female's power in the family, education, age, religious inclination, family income, and socioeconomic status [42]. Mobasheri et al. (2013) found that the rising costs of living and economic pressures, the absence of government support and welfare facilities aiding childbearing and the wrong attitude that more children reflect a poorer social class and cultural background are among the key factors affecting childbearing [43]. Enayat and Parnian (2013) showed that cultural globalization negatively affects the desire for childbearing [44]. The results obtained by Esmaeili et al. (2013) showed that education, family size, marriage, and creating employment opportunities increase the role of income and result in a lower fertility rate [45]. The results of a study conducted by Razeghi-Nasrabad et al. (2014) suggested that the desire to have no children increases with age and that education and older age at marriage can delay the time of having the first child [46]. The results obtained by Hakimzadeh et al. (2013) showed no relationships between the family's childbearing decisions and women's employment and intimacy with their husband [47]. Khadivzadeh et al. (2013) revealed the important role of social networks in couples' childbearing intentions [48]. A study conducted by Kaboudi et al. (2013) showed that a reduced tendency towards childbearing could be observed among females of all education levels [49]. Abbasi-Shavazi and Khajeh-Salehi (2013) argued that female's education, social participation,

age, and number of children have a decisive role in their childbearing desires [50]. The results of a study conducted by Ahmadian and Mehrabani (2013) showed that female's education has a significantly negative effect on their fertility rate. Moreover, the husband and wife's age has a negative and significant relationship with their fertility rate [51]. A study conducted by Hosseini and Hosseini (2013) showed that age at marriage, female's education, use of contraceptives, and monthly expenses of children have an inverse and significant relationship with fertility, while the ideal number of children and the female's employment have a direct and significant relationship with fertility. The relationship between religion and reproductive behaviors was not significant in the cited study [52].

In a study conducted by Hosseini and Bagi (2012), female's reproductive behavior was affected by three indicators of independence, the use of contraceptives, and other variables that had a determining role in reproductive behaviors [53]. Mahmoudian and Rezaei (2012) found that the low fertility rate in females in Saqqez is due to physical, social, and psychological self-protection [54]. A study conducted by Ebrahimipour and Ebadi (2012) showed that the tendency towards fewer children below the replacement level, the perceived costs of childbearing and the desire for professional promotion, personal well-being and sexual equality also have a significant relationship with female's attitudes towards childbearing [55]. The results obtained by Savabi and Raad's study (2012) showed that religious beliefs are a key factor in female's desire to have children. In their study, female's age had the greatest effect and social status had the least effect on childbearing tendencies [56]. In another study, Moshfegh and Gharib-Eshghi (2012) showed that as the perceived positive value of children increases and the family's attitude towards children becomes more positive, the desire for childbearing increases, which is itself a function of underlying social factors [57]. A study by Kiani (2011) showed that female's higher education leads to an increased age at marriage and changes their attitude to fertility and childbearing costs [58]. The results obtained by Adibi-Sedeh et al. (2011) showed that female's education and employment and people's attitude towards fertility have a greater share in determining female's fertility rates [59]. In another study, Ghodrati et al. (2011) argued that female's education and membership in formal groups are the most effective factors determining their number of children, respectively. An inverse and significant relationship was also observed in their study between the family's place of residence and fertility rate [60]. The summary of studies conducted on factors affecting the decline in fertility is presented in Table 1.

**Table 1:** A Summary of Studies Conducted on the Factors Affecting the Decline in Fertility

Author/Year	Research Methodology	Study Subjects & Inclusion Criteria	Results
Kariman et al. (2016) (9)	Cross-sectional, descriptive	pregnant Iranian women presenting to health 300 centers and private clinics in Shahrood and married only the one time	Age at marriage, marital satisfaction, social support, life expectancy and quality of life directly affected the time of having the first child
Kariman et al. (2016) (10)	Cross-sectional	to 45-year-old Iranian men presenting to 18- 300 public and private health centers in Shahrood	Satisfaction with life, social support, economic status and quality of life were among the factors affecting men's decisions
Siahpoush & Boroumand (2016) ((11	Survey and correlational	married women younger than 35 in Andimeshk 240	Childbearing tendencies had a significant and positive relationship with gender preferences and a negative and significant relationship with adherence to traditions, education and socioeconomic status

(Afshari (2016) (12	Secondary analysis	Data from provinces of Iran in 2006-2012	Changes in traditional beliefs and women's higher education delayed age at marriage and affected fertility
Foroutan et al. ((2016) (13	Cross-sectional	to 49-year-old married women from rural 15- 743 and urban areas of Neka in Iran	Age, duration of marriage and current number of children were the main determinants of childbearing tendencies
Kalaei & Yaghoubi-doust (2015) (14	Survey	to 49-year-old women from Masjed 15- 384 Soleyman	Women's childbearing desire was associated with nationality, religion and demographic and socioeconomic factors
Aslangir and Shay-gan (2015) (15	Cross-sectional, quantitative	female teachers working in schools in District 330 1 of Tehran	Women's attitude to the number of children was associated with their religiosity, self-support and financial independence
Razavizadeh et al. ((2015) (16	Qualitative	to 50-year-old married women with children 20- 17 from Mashhad	Child-oriented and parent-oriented concerns caused the low childbearing tendencies
Piltan & Rahmani (2015) (17	Survey	to 45-year-old married men and women 25- 380 living in Jahrom	Childbearing tendencies were related significantly to childrearing problems and social participation
Rastegar-Khaled & Mohammadi ((2015) (18	Secondary analysis	Data were extracted from a survey of Iranians' values and attitudes in 28 cities of the country in 2001	With a higher degree of religiosity, lower individualism and higher family values, the city's fertility rate increases
Kaveh-Firouz & Karami (2015) ((19	Social survey	married women with at least one child from the 400 22 districts of Tehran	Employed educated women had less time for childbearing and preferred to avoid childbearing in order to keep their position at work
Iman et al. (2015) ((20	Secondary analysis, population and housing census (2006	All the 10- to 19-year-old urban women married at least once from all the counties of Iran	An increase in urbanization and women's education and employment reduced the rate of marriage in adolescent girls and decreased their fertility rates
Derahaki (2015) ((21	Survey	15-49-year-old married women from Nasim- 304 shahr	A significant link was found between the ideal fertility rate and independence, attitude toward children's expenses and the husband's education
Mahmoudian et al. ((2015) (22	Survey	men and women about to get married and 400 presenting to select health centers in Kermanshah	The ideal fertility rate among villagers was related significantly to education, employment and family income
Golpaygani (2015) ((23	Qualitative	married women with and without children from 15 Tehran	High level of individualism and poor accountability led to changes in families' attitude toward having small families
Azmoudeh et al. ((2015) (24	Cross-sectional	women of reproductive age from Torbat 241 Heydarieh	Fertility intention was related significantly to the current number and gender composition of children and the ideal gender composition
Kariman et al. ((2015) (25	Cross-sectional	nulliparous pregnant women from 19 provinces 820 of Iran married only the one time and of Iranian nationality	Marital satisfaction, perceived social support and the attitude toward life inversely affected the timing of motherhood
Kariman et al. ((2015) (26	Qualitative	nulliparous pregnant women who had used 22 contraceptives or primiparous women and women with only one child and living in Tehran	Women's concerns about childbearing were divided into four categories: Fear, uncertainty, hope and financial security
Khadivzadeh et al. ((2014) (27	Qualitative	Persian-speaking Iranian residents of Mashhad 45 for at least five years	Deciding to have the first child was affected by the couple's mutual relationship and child rearing ability
Haddad & Kabiri-Renani (2015) ((28	Secondary analysis	Two-parent families. Mothers aged 15 to 48, data on family income and expenses (2008) gathered from all the provinces of Iran	University-educated women with a high bargaining power had less desire to have children
Khadivzadeh et al. ((2015) (29	Cross-sectional	Iranian Muslim couples married for the first 450 time and presenting to premarital counseling centers in Mashhad who consented to participate in the study	Childbearing motivation and the ideal number of children were higher in those with strong religious beliefs
Jahromi et al. ((2015) (30	Cross-sectional	of the employees of Motahari Hospital in 96% Tehran	Education-related factors (the lack of time for helping out the children) and personal factors (anxiety and stress about the child's prospects) affected the family's decision to have children
Kariman et al. ((2014) (31	Qualitative	nulligravida or primigravida married women 32 using contraceptives with no history of infertility living in Tehran	Three themes explained women's experiences and feelings regarding their childbearing decisions, including assurance and satisfaction as opposed to doubt and hesitation, silent decision-making and bargaining around a common two-sided paradigm
Ishaghi et al. ((2014) (6	Qualitative	to 36-year-old women working in the public 24- 24 or private sector and living in Tehran	Employed women were faced with childbearing challenges inside and outside work that made them have fewer children

(Jokar (2014) (32	Descriptive-analytical	Using historical, sociological and other sources	Modernity, the increased divorce rate and the belittling of motherhood were among the factors affecting the population decline
Ojaghloou et al. ((2014) (33	Survey	women selected from each of the five generations of married and single women over 18 from (Zanjan (n=500	Increased awareness and expectations and changes in women's role and position affected their fertility behaviors
Abbasi-Shavazi & (Khani (2014) (34	Survey	to 49-year-old married women from rural 15- 534 and urban areas of Sanandaj	Women's education, older age and economic insecurity caused poor reproductive behaviors and a low ideal number of children
Razeghi-Nasrabad & Saraei (2014) ((35	Survey, cross-sectional	to 49-year-old married women from 15- 405 Semnan Province	The difference in the mean value of children in different periods was affected by education
Mahmoudian-Gilani (2014) (36	Survey	women presenting to health centers before 200 marriage in Kermanshah	The ideal fertility rate was lower in the educated women with a higher family income
Hosseini & Bagi ((2014) (37	Survey, cross-sectional	to 49-year-old women with records in one 15- 273 of the select health centers in Hamadan for receiving fertility services	The likelihood of stopping childbearing was higher in women with a larger number of living children and who considered the benefits of having children less than its costs
Shahbazin et al. ((2014) (38	Cross-sectional	to 49-year-old married women with at least 15- 279 three children who had been pregnant or given birth in 2011-13 and women who were pregnant and were giving birth for the fourth or more time living in Kangavar	Women's fertility rate was related significantly to the couple's education, place of residence and number of male offspring
Mousavi & Sادات-Ghafelehbashii ((2014) (39	Quantitative, survey	to 38-year-old married couples in Qazvin 19- 110 ((59 women and 51 men	Economic factors affected the negative attitude of families to childbearing more than other factors such as beliefs, culture and the physical-cognitive identity
Hosseinzadeh et al. ((2014) (40	Survey	to 49-year-old married women living in 15- 600 Ahwaz	Fertility is directly affected only by age at marriage and indirectly by the woman's age, attitude to the benefits of having children and the mean birth spacing
Naghdii & Zare ((2013) (41	Survey	to 49-year-old women married once and 15- 316 still living with their husband or divorced or widowed living in Sadi Township	Fertility is significantly affected by age at marriage, duration of marriage, having lived on the fringes and the attitude toward the use of contraceptives
Keshvarz et al. ((2013) (42	Survey	to 49-year-old women from all social classes 20- 380 in Isfahan	Postponing childbearing depended on women's power in the family, religiosity and family income
Mobasheri et al. ((2013) (43	Descriptive, cross-sectional	women married for at least two years, without 180 children or with only one child over age four and living in Shahr-e Kord	Economic pressure and the wrong attitude that having more children shows a lower social class were the key factors affecting fertility
Enayat & Parnian ((2013) (44	Quantitative, survey	to 29-year-old women and girls in Shiraz 14- 600	Cultural globalization had a negative relationship with childbearing tendencies
Esmaili et al. ((2013) (45	Survey	to 49-year-old married women in Ahar 15- 300	Education, family size, marriage and creating employment opportunities increased the role of income and reduced fertility
Razeghi-Nasrabad (et al. (2013) (46	Cross-sectional	Data extracted from the socioeconomic, demographic and health features of Iran	Delays in having the first child were potentially due to education and the increased age at marriage
Hakimzadeh et al. ((2013) (47	Cross-sectional	women living in District 11 of Tehran: 199 300 unemployed and 101 employed	Childbearing decision-making had no relationship with women's employment or their intimate relationship with their husband
Khadivzadeh et al. ((2013) (48	Qualitative	Persian-speaking participants living in Mashhad 24 with at least one child and of Iranian nationality	The important role of social networks in couples' childbearing intention
Kaboudi et al. ((2013) (49	Survey	to 55-year-old married women living in 16- 3443 Kermanshah, a longitudinal survey of households in the west of Iran in 2009	A lower childbearing tendency was observed in women of all education backgrounds
Abbasi-Shavazi & Khajeh-Salehi ((2013) (50	Survey	to 49-year-old married women with children living in Sirjan 15- 400	Social participation and the number of children had a decisive role in childbearing tendencies
Ahmadian & Mehrabani (2013) ((51	Descriptive-analytical	households with one or more children from all 1294 parts of Tehran	Women's education had a significantly negative effect on their fertility
Hosseini & Hosseini (2013) (52	Cross-sectional, survey	to 49-year-old rural married women in 15- 550 Ravansar and Gilan-e Gharb	Fertility had an inverse and significant relationship with age at marriage, the use of contraceptives and childbearing costs

Hosseini & Bagi ((2012) (53)	Survey	to 49-year-old married at least once and 15- 700 living with their husband in Mahabad	The use of contraceptives along with other variables had a decisive role in fertility behaviors
Mahmoudian & (Rezaei (2012) (54)	Qualitative	single women over 20, not infertile, having lived 35 in Saqez for a long time and married women with children or about to have children	Physical, social and psychological self-protection were the basic assumptions in women's low tendency to have children
Ebrahimpour & (Ebadi (2012) (55)	Survey	pre-collegiate female students with their 360 mothers in Sari	The tendency to have fewer children even below the replacement level, child-bearing costs and personal well-being had a significant relationship with girls' attitude toward childbearing
Savabi & Firouzrad ((2012) (56)	Survey	to 50-year-old married women from the 10 15- 460 districts of Tabriz	Women's age had the most significant effect on their fertility and social status had the least significant effect
Moshfegh & Ghar-ib-Eshghi (2012) ((57)	Survey	to 50-year-old women from the 22 districts 21- 600 of Tehran	The higher was the positive value of children and the family's positive attitude toward children, the greater were childbearing tendencies
(Kiani (2011) (58)	Cross-sectional	to 49-year-old women married for over two 20- 300 years and living in Isfahan	Women's higher level of education led to an older age at marriage and changes in the attitude toward childbearing
Adibi-Sedeh et al. ((2011) (59)	Survey	Kurdish women living in Andimeshk 250	Women's education, employment status and attitude toward fertility had a major share in determining the fertility rate in Kurdish women in Andimeshk
Ghodrati et al. ((2011) (60)	Survey	to 50-year-old married women living in 20- 384 Sabzevar	Women's education and membership in social groups were the key factors affecting their number of children

## DISCUSSION

The regional and subpopulation differences in fertility trends are explained by the effect of various social factors, which are considered one of the basic assumptions in reproductive studies, because people's reproductive tendencies depend not only on living and biological conditions, but also on social conditions [56]. However, people's reproductive actions and tendencies are not only based on their evaluation of the present and future conditions for improving their family's welfare and gains, and can also be normative, emotional and arising from the social and cultural constructs of the society in which they live [61]. A number of studies have shown a positive relationship between people's attitude to fertility and fertility rates [13, 16, 18, 33, 35, 57, 59]. The increasing development across provinces followed by the increase in urbanization and industrialization have been associated with changes in traditional beliefs [62]. As a result of their increased information and awareness of industrialization and globalization trends, females now ascribe rights to themselves other than being mothers and wives, and this change has led to their greater social participation, increased level of education, and employment [44]. Education, employment, and subsequently an older age at marriage have an inverse and significant relationship with female's childbearing, as in line with the results of other studies [11, 13, 19-21, 28, 37, 38, 40, 41, 43, 46, 49-52, 58-60, 62]. In contrary to these findings, the only studies that found no relationship between employment and fertility were the ones conducted by Hakimzadeh et al. (2013), and Naghdi and Zare (2013). A higher level of education and the resulting increase in employment opportunities and working outside the house delay the age of marriage, reduce the years of marriage and the number of children, and lead to a greater use of contraceptives in married females than other females [41, 47, 53].

Many studies consider couples' decision to have children to be affected by their economic status and income [9, 11, 26, 27, 30, 34, 36, 37, 39, 43, 45]. Economic uncertainties, such as inflation and the rising costs of living have affected

female's fertility ideals [21]. In other words, when faced with limited resources to meet their family's economic expectations, people seek higher academic achievements and more stable economic conditions following a particular behavior management mechanism and tend to avoid the risks of childbearing and having more children [32, 34, 40, 43, 63]. Several studies [13-15, 17, 18, 21, 29, 33, 41, 56, 57] have shown a significant relationship between religion and fertility, so that people with religious beliefs and higher levels of religiosity tend to be more interested in having children and vice versa. The only study that did not find a relationship between religion and fertility to be significant was the one by Hosseini and Hosseini (2013). Religious affiliation affects fertility through socioeconomic and demographic characteristics. As an explanatory variable, religion could maintain its effect on fertility independent of other variables. For instance, by prescribing or not prescribing contraception, religion could affect people's attitude towards the number of children and therefore fertility [52, 61].

## CONCLUSION

Many factors affect the reduced desire to have children, which can be divided into three general categories: 1. Personal and family factors, including aging, older age at marriage, current number of children, the mean birth spacing, the duration of marriage, expectancy, quality of life, marital satisfaction and gender preferences, 2. Socioeconomic factors, including social support, education, occupation and social participation, especially of women's, place of residence, unemployment and inflation and the effect of social networks, 3. Cultural factors, including modernity, urbanization and industrialization, attitude change toward the value of children, changes in family values and religious faith. To deal with the challenging decline in childbearing, policy-makers should pay special attention to all these three categories of factors in their plans and strategies.

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## CONFLICT OF INTEREST

There was no conflict of interest.

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## AUTHOR CONTRIBUTIONS

All authors contributed equally to this project and article. All authors read and approved the final manuscript.

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