Abstract

**Background:** Childbearing behavior refers to a family decision-making process among couples.

**Objectives:** The purpose of this narrative review is to summarize the determinants of decision-making process in the first childbearing of the couples.

**Methods:** The present narrative review study was conducted from 2000 to November 2017. We searched English and Persian articles on the databases of Request, CINAHL, Ovid, PubMed, and Medline using free-text words such as “related factor” and “time of the first child” and the keywords including “decision making”, “childbearing”, “factor influencing child bearing”, and “couples”. The inclusion criteria were the quantities studies regarding the determinants of decision-making process in the first childbearing or various related dimensions.

**Results:** The findings revealed four effective categories including individual, familiar, economic, and social factors. Each of these categories contained a wide range of age, age of marriage, quality of life, marital satisfaction, couples compromise, occupation, family income, educational level, and social support, which may overlap with each other probably due to the complexity of reasons for delayed childbearing.

**Conclusion:** Various factors may affect the process of family decision-making for the first childbearing among couples. Healthcare providers and policymakers should adopt an appropriate strategy to improve the socioeconomic and familial status of the couples to help them reach the desired number of children at a right time.

**Keywords:** decision-making, determinants, first childbearing rest

Introduction

One of the leading life-changing events is childbearing, especially in the case of the first child [1]. According to the Census (2016) in Iran, the fertility rate was reported to be approximately 2.01% in most communities [2]. In addition, the World Bank estimated that the population growth rate would decrease by 1.13% during 2020-2024 [3]. Maternal age is an important risk factor for pregnancy outcomes. Unintended pregnancy outcomes are more frequent at the maternal age of less than 20 years and more than 35 years in comparison with the one in 20-30 years [4]. Although some couples have deliberations before childbearing, studies show decision-making process has an inconsequential role in childbearing [5,6]. Many studies investigated the rate changes of fertility process [3,7,8]. Accordingly, there is a direct association between fertility and maternal age [9,10,11], marriage age [12], and preferred child sex [11,12,13,14,15] as well as an indirect...
association between fertility and marriage age [14] and educational level of the couples [11,16]. Numerous studies estimated that fertility rate is affected by socioeconomic and familial factors, highlighting the necessity of an accurate identification of these factors. The recognition and application of such factors, either directly or indirectly, will contribute to optimize their effects on fertility rate [3]. A majority of previous studies have surveyed few factors in this respect, and significant aspects have been neglected. On the other hand, a large number of comprehensive and qualitative studies dominantly focused on the socioeconomic variables and neglected the mandatory role of individual and familial factors. Owing to lack of comprehensive stick studies, this research aimed to review the related determinants of decision-making process for the first childbearing among the couples.

Methods
ProQuest, Pubmed, CINAHL, Ovid, and Medline from 2000 to November 2017 were used as the main search databases in the present study. We used the free text words of “Related factor” and “time of the first child” and the keywords of “factors influencing the childbearing” and “decision-making”. Additionally, the references listed in studies were reviewed to upgrade the sensitivity and increase the number of related studies. Full texts and abstracts of all articles, documents, and reports were elicited using the advanced search option. After eliminating the duplications in titles, abstracts, and full texts, we excluded irrelevant cases and selected relevant studies. Finally, 47 out of 10524 studies were included in this review. The search process is shown in Figure1.

![Figure 1: The search process of the study]
Quality Assessment: After selection of papers based on the titles and contents, their quality assessment was carried out using special Checklists [17] derived from STROBE checklist [18], containing 12 questions regarding different aspects of methodology such as type and design of the study, sample size and sampling methods, study population, data collection methods and tools, variables definition, statistical tests, study objectives and presentation of the results according to the objectives. Each question was assigned one score and studies obtained at least eight quality scores (18) entered into the final assessment.

The inclusion criteria were the quantitative studies on the determinants of decision-making process for the first childbearing from 2000 to 2017 in terms of various related dimensions such as individual, familial, social and economic factors. The exclusion criteria were the studies on decision-making process for second and more children.

By reviewing the texts, we classified the findings into four categories including individual, familial, economic, and social factors associated with the decision-making process of the first childbearing. Each of these factors has different components that affect decision-making process of childbearing in the couples.

Results
1. The relationship between individual factors and the decision-making process for the first childbearing:
Age, marriage age, motivation and hope, and quality of life are among the most important factors affecting the decision-making process in the first childbearing.

1.1. Age
Many studies introduced the maternal age as the most important factor to predict the fertility and its complications, which is associated with an increased risk of infertility [19]. In different circumstances, motherhood is influenced by social, cultural, and ideological images, models, and theories, which generally affect the experiences of mothers and even others equally [20,21]. According to previous studies, people with traditional view about women’s roles have less negative attitudes towards childbearing. The simulation of the role of women and men can help to have similar attitudes about childbearing. Motivation and interest in being a mother is a predictor of reproductive outcomes. The people who had tolerated difficulties of becoming a parent would most likely have a negative attitude toward childbearing. The hardships on the way of becoming a parent increase the age of first childbearing of men and decrease it in women [22].

1.2 Marriage age
Attained experiences represent a constant marriage age in each country; however, this rate varies widely from country to country. In addition, it plays an important role in fertility rate. The marriage age is mutually related to fertility. On the one hand, a lower marriage age leads to higher fertility rate in marital life, meaning more chance of fertility in a woman married at the age of 15 years in comparison to a woman married at the age of 25 years. On the other hand, in the decisions about the use of contraceptive methods and the time of pregnancy, it has been shown that the women married at higher age have more control over their fertility behavior and show more decision-making power [23].

Although marriage in population articles is one of the direct determinants of fertility rate [24], the relationship between the marriage patterns and fertility rate has certain complexities. In the communities like Iran where the premarital sex is not popular, the marriage age, out of other factors, is a good index to determine the entrance time to pregnancy. The collected data from various countries in 1981 related to the World Fertility Survey (WFS) show a close relationship between fertility reduction and marriage age elevation [25,26].

1.3 Motivation and hope
Childbearing and continuation of one’s generation renewal are of the issues occurring in the context of being hopeful. Otherwise, the youth will not marry, marry late, or avoid childbearing or at least suffice to one child, if they are not hopeful to have a successful marital life [27]. The fertility is not a physical condition and is a phenomenon based on personal thoughts and mentalities. An
individual’s motivation has the most important role in human actions and leads to the real goal. Actually, motivation creates interest in a person and finally fosters his/her to act [14]. The fertility preferences show emotional feelings and wishes [28]. According to Miller, the fertility preferences include childbearing interest, desired number of children, and childbearing interval. The desire for childbearing is one of the dimensions of fertility preferences and is associated with contraceptive approaches [29,11]. In the US, there is a significant relationship between fertility motivations and preferences [11,30]. According to Miller, the fertility motivation involves positive and negative dimensions. The positive fertility motivations actually include personal reasons of having a child, pregnancy pleasure, birth, childhood, traditional view, satisfaction with childbearing, and the need for survival. The negative fertility motivations cover the reasons for not having a baby such as panic of becoming parent, parental stress, and child care challenges. Miller showed that positive fertility motivation is associated with intention to have further childbearing, more desired children, and less desired intervals between children. Moreover, the results revealed that the negative motivations of childbearing had a reverse and significant correlation with the interest of childbearing and the number of desired children. Increasing positive motivation in pregnancy in the couples reduces the intention of a childbearing, the number of desired children, and desired interval between marriage and the first childbirth [11].

1.4 Quality of life
The quality of life is active, dynamic, and multidimensional flow of perceptions, attitudes, and behavioral changes and a set of various experiences in personal life. A child reduces uncertainty in marital life and increases couples’ dependency [7]. How to evaluate a child is determined by the structure of a community and family, and the psychosocial characteristics of a couple are effective in deciding on childbearing and fertility. Humans endure their values and traditions through children, religion, and nationality and protect their cultural and genetic heritage by means of transferring them to their offspring. Therefore, the peak of child value is survival of a generation and continuity of humanity [31]. The marital satisfaction is a mental condition and reflects the advantages and pressures of a person’s perception in his/her life. More pressure by a marital partner will lead to less satisfaction with the marital life. Thus, more perceived advantages would result in more satisfaction with the marital partner and life [32].

2. The relationship between familial factors and the decision-making process for the first childbearing

2.1. Marital satisfaction
There is a close relationship between people’s perceptions on the quality of marital life and their childbearing motivations to endure mutual life and attempt for readiness [33]. Some couples consider childbearing as a big threat to lose their loneliness opportunities and enjoy travelling, hobbies, and spending time with each other in the first years. Consequently, they delay the decision-making process for childbearing. Moreover, there can be uncertainties in terms of full recognition of spouse, especially in traditional marriages, and sustainability of marital relationship during contentious and erosional debates in the course of this cognition [6,7,34]. On the other hand, some theoretical studies of Friedman’s logical choice based on the positive effect of divorce emphasizes the intention of being a parent and considers childbearing as one of key motivations to attenuate the marital disturbances. This occurs through making a proper atmosphere to reduce the climate of distrust and increase confidence among couples [7,35].

2.2 Couple agreement (on childbearing and contraception)
Family is the main unit where the fertility decision is made, objectives are formed, and the fertility behaviors become real and practical through a close relationship with other social organizational elements of each society [9]. Moreover, no longer does the young generation think about the horizontal distribution of power in the family instead of the vertical distribution of power through patriarchy with the emergence of nuclear family arrival in industrial societies.
Therefore, the inclination toward a democratic family where couples respect each other and collaboratively make principal decisions has particularly increased among women [37].

Equality in family decision-making is seemingly increased due to greater employment equality between women and their husbands. In addition, decision-making factor can also influence the satisfaction of couples [38]. In Iran, other parties play important role to make a decision apart from spouse including parents, friends, relatives, and even neighbors. However, these people have no influence in making a decision in developed countries even among various ethnicities and regions [5].

3. The effect of economic factors associated with the decision-making process for first childbearing

3.1. Occupation

Women’s employment clearly disturbs the traditional roles of families and spontaneously influences other aspects of life [39]. Most researchers in 1980s believe that the intensive fertility reduction in industrial countries starting 40 years ago is associated with increased participation of women force. For example, the initiators of the concept of demographic transition relate the reduction in childbearing tendency to the increasing economic independence of women and their efforts for self-sufficiency [3]. The correlation of women’s employment with fertility usually rotates around neoclassic economic theories, and consequently the cost of childbearing opportunities and the incompatibility of employment with childbearing have negative effects on the likelihood of the first birth [40]. As Karimian puts, since the employed people consider childbearing as a serious threat to their jobs, advantages, and economic and social opportunities, job planning can act as a big barrier to childbearing [40].

3.2. Income

Income is an economic status index that affects fertility. Many theories have been proposed with regard to the association between fertility rate and the family income. Each society can be exemplified for each theory based on its economic and social conditions. In the first theory, there is a reverse correlation between fertility and income, meaning that an increased income level leads to a reduction in family fertility [41]. In the second theory, there is a direct correlation between income and fertility, meaning that a higher income level increases family fertility. In the third theory, there is a direct correlation between a definite level of income, fertility, and income. Thus, change-oriented and low-income groups have low fertility, and if their income increases, their fertility increases to reach a definite level of life. After that, the fertility decreases in line with increases in income [42]. It seems that the parents who wish for more wealth and high opportunities and income and have easier access to fertility control tools want fewer children. Mutually, low-income parents with low-level jobs and inaccessibility to fertility control methods prefer to have more children [7,36]. Liebenstein believes that the economic benefit or non-benefit of having children is an effective factor in parents’ decision-making on the number of children. Moreover, inflation severely and economically puts pressure on poor and middle-income people in terms of feeding children and catching up with other facilities and thus prevents fertility. Fertility reduction is observed in some parts of the world and western societies since the new generations have changed their position from producers to consumers. Therefore, families prefer to reduce the number of consumers [43].

3.3. Habitat

The fertility behavior seems to occur in relationships, interactions, and socioeconomic and cultural levels, which is manifested in the texture of the residence area such as many other orientations of people. In Lower districts of cities, people have a more traditional tendency toward childbearing and tend to have higher fertility. In upper areas, the fertility rate of women decreases. According to previous research findings, population plans and policies must consider the variable of the mentioned district by means of both increasing and decreasing goals [3]. Habitant and residence (urban and rural areas) types have two different fertility systems. The fertility in rural areas is high until the prevention...
is taken seriously. As human force is significantly important, the inclination toward fertility and male children is higher. Due to various limitations of city life, incremental needs, and preventive mechanisms, the preparation to deal with fertility limitation is higher [2]. The dominant values and norms on fertility have definite influences on all members. Family is undoubtedly the most important factor in the emergence and formation of personality, and therefore identifying the organization and family imageries can be considered as a key in recognizing the raised person’s behaviors [44].

4. The effect of social factors associated with the decision-making process for the first childbirth

4.1. Education

Educational level is one of the most important factors in determining fertility changes. It can increase direct and indirect costs of children and reduce their economic benefits. Its direct results are the changes in wealth flow between the generations and the decreases in the demands for having children.

On the other hand, education is the most important factor in changing people’s attitudes and values through a flow of new ideas and information and directly fosters an inclination toward smaller families and more family planning. Moreover, education can increase marriage age that can be related to fertility behaviors in terms of various aspects. Marriage at high ages reduces the childbearing period. The women marrying at higher ages have further expectations and intend to select the number of children and take part in family planning [3].

In addition, as Nelson and Ahmadi argued, the women with higher educational levels have more knowledge of contraceptive methods and a variety of corresponding tools, particularly in terms of risks and adverse effects of obstetric history and childbirth. They argued that education increases people’s capacity in perception, decoding, and perceiving information. Thus, educated women can better prevent unintended pregnancy and thus reduce the fertility rate [45,46].

4.2 Social support

Social support is a completely multi-dimensional and sophisticated phenomenon that is defined as the estimation of basic social needs via interaction with others in a social environment. Interaction with others involves a collection of social relationships and quality of social communications, which can endow positive impacts on the decision-making process of people [47]. The presence of an accessible family support system is essential and may include marital relationships, non-homosexual friends, large families, colleagues, and professionals [12].

One of the contributing factors effective on fertility - both its control and increase - is the social networks in today’s world. The social networks can be valuable resources, contribute to reducing the costs of childcare, and help people achieve their related fertility behaviors [6]. The social networks in some communities help to develop the knowledge of using and promoting contraceptives and control fertility. In some cases, networks persuade women for childbearing and provide social and mental supports [12].

Discussion

A review of studies revealed that the factors affecting the nulliparous decision-making process in the spouses are not exclusive and may overlap. People with a traditional view toward women role harbor fewer negative attitudes towards childbirth. The adjacency of men and women jobs may incrementally make attitudes about childbirth more similar. [48]. More pressure on men and women to have a child can increase the planned age in men and decrease it in women [22]. Miller found that negative motivations have reverse and significant correlation with tendency to childbearing. Increasing positive fertility in couples enhances the intention for childbearing and the number of children and decreases the desired gap between marriage and the birth of the first child [11].

Some of the reasons for the rise in the age of marriage include excessive youth freedom, lack of housing and proper job, high expectations, heavy dowries, costly marriages, ignorance of ethical issues, cultural distance of families, and increase in females’ education. It should to be noted that higher marriage age has various effects on fertility rate [26]. Gradual extension of the modern society
is tied to urbanization, and more emphasis on women education has slowly increased. Therefore, gender gap in education has sharply reduced, and the number of female students has already exceeded male students. Due to the continuity of youth unemployment and intensive inclination of females to higher education, further increases in the marriage age of females are expected [11,27].

Based on previous reports, there is a close correlation between people’s perception on the quality of marital relationship and their motivation of childbearing to endure mutual life and readiness [34]. In addition to spouse, others including parents, friends, relatives, and even neighbors can importantly influence the decision-making process in Iran compared to the case in developed countries. Even within different ethnicities and regions of a country, these factors play a completely different role [5]. According to Karimian, since employed people view childbearing as a serious threat to lose their jobs and socioeconomic status and opportunities, job planning is considered as a big obstacle for childbearing [40]. Marriage at higher ages reduces the childbearing period. The women marrying at higher age have higher expectation, intend to select the number of children and cooperate in family planning. Furthermore, accessible family support system is necessary and may include marital relationships, non-homosexual friends, large families, colleagues, and professionals [12]. These factors can provide different effects on the nulliparous decision-making process among the spouses in various communities due to the differences in culture, social status, and attitudes.

**Conclusion**

Due to various disturbances among couples, the policymakers are recommended to make proper policies, provide conditions for women to give birth sufficiently, and facilitate the opportunity of having the first child for the families who are interested in education and occupation. In addition, couples should balance childbearing and their education and employment and provide safe family life and socioeconomic status for having children. Therefore, the decremented effect of delay on future fertility is controlled in the first childbearing and decreases fertility.

**Conflict of interest**

All the authors declare that there is no conflict of interest.

**References**

2. Excerpts from the Results Of The General Census Of Population And Housing In 2016. www.amar.org.ir/Portals/0/census/1395/results/ch_nsonvm_95.pdf. [In Persian]
11. Miller WB, Pasta DJ. Behavioral Intentions: Which Ones Predict Fertility Behavior in Married
23. Khadivzadeh T, Hadizadeh Talasaz Z, Shakeri MT. Predicting factors affecting the delay in first childbirth among young married women using the Bandura’s social learning theory. Hayat. 2017; 23(3): 226-42. [In Persian]
25. Kariman N, Amerian M, Jannati P, Salmani F. Factors influencing first childbirth timing...