

Childbearing Intention and its Associated Factors among Adolescent Girls: A Narrative Review

Abstract

Background: Childbearing is an important phenomenon among adolescents. Studies that have evaluated teenagers' reproductive patterns have found that many adolescents are ambivalent regarding sexual activity and childbearing. In order to assess the patterns of adolescents' reproductive health and pregnancy to conduct interventions, every country needs to collect specific data about childbearing intentions. This study was conducted to determine the factors that may affect the childbearing intentions of adolescents. **Materials and Methods:** This article was a narrative review. Articles derived from PubMed, Scopus, and Web of Science from January of 2000 to February 2015 were assessed. Moreover, gray literature, such as conference abstracts, theses, and the result of technical reports were also used. **Results:** In total, 15 studies were included in the review. The findings of this study showed that childbearing motives are affected by several factors. According to the results of the qualitative studies, some of the most important effective factors were women's decision-making power and financial issues. In this regard, the quantitative studies noted that the cultural and economic factors were more effective than other factors in determining the childbearing motives of adolescents. **Conclusions:** Fertility expectations are affected by several factors and are compatible with a variety of conditions. Moreover, access to precise information on the effects of each factor (positive or negative) is necessary and useful for demographers, policymakers, and other planners in any community.

Keywords: Childbearing, motivations, reproductive health, teenagers

Introduction

Childbearing is an important phenomenon in demographic movements and is the basis for sustainable development in countries with low replacement fertility rates.^[1] Adolescence is the stage of transition from childhood to adulthood in which many lifestyle patterns are learned and established.^[2] Because of limited access to reproductive health education and care services, adolescents have to approach childbearing with relatively low reliance on contraceptives, pregnancy intentions, and high-risk behavior protections.^[3] This leads to probable inverse outcomes, for example, low use of methods of contraception results in unplanned pregnancies among adolescents, and unsafe sex contributes to the high prevalence of Sexually Transmitted Infections (STIs) and Human Immunodeficiency Virus (HIV) among individuals of 15-24 years of age and other health-related problems associated with childbearing among adolescents. Studies that evaluated teenagers' reproductive

patterns found that many adolescents are ambivalent regarding sexual activity and childbearing.^[4-6] In older women, the fertility intention can affect investigations on ante partum facilities, such as pregnancy care services and cessation of high-risk behavior such as cigarette smoking and regular use of supplements such as folic acid and iron. This is also true for adolescents; however, there are a limited number of studies in this area. In order to assess the patterns of adolescents' reproductive health and pregnancy to conduct interventions, every country needs to collect specific data on the factors that may affect adolescents' intentions.^[7,8]

Qazi explained that theoretically intention is a real fertility manner.^[3] There are two prominent theories in the field of adolescents' pregnancy intentions, the Social Norms Theory^[9,10] and a Life Options Theory.^[11,12] Moreover, Ajzen^[13] explained the Theory of Planned Behavior that has been used in many areas including fertility intentions. The Social Norms Theory

Zeinab Oshrieh¹,
Najmeh Tehranian²,
Elham Ebrahimi³,
Afsaneh Keramat⁴,
Maryam Hassani¹,
Roghaieh
Kharaghani^{1,5}

¹Student Research Committee, School of Nursing and Midwifery, Shahroud University of Medical Sciences, Shahroud, Iran, ²School of Medical Science, Tarbiat Modarres University, Tehran, Iran, ³Department of Reproductive Health, School of Nursing and Midwifery, Tehran University of Medical Sciences, Tehran, Iran, ⁴Reproductive Studies and Women's Health Research Center, Shahroud University of Medical Sciences, Shahroud, Iran, ⁵Department of Midwifery, Zanjan University of Medical Sciences, Zanjan, Iran

Address for correspondence:

Dr. Afsaneh Keramat,
Hafte Tir Square, Shahroud,
Iran.

E-mail: keramat1@yahoo.com

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maintains that some life events such as marriage and childbearing are strongly affected by socioeconomic class, race, and ethnicity.^[9,10] Furthermore, the Life Options Theory states that “ if adolescents do not get enough facilities for employment or education, or enough affordability, these lead to their inability to delay pregnancy.”^[11,14]

Fertility and childbirth is a unique factor in population growth worldwide; it can change the demographic structure of countries.^[8] The tendency and general desire of human beings to have children is one of the most important components of development in societies and is a pivot of sustainable development for countries with low population growth.^[9] In recent years, there has been a dramatic change in the population of the world; one of the most important changes in this regard has been the decline in fertility.^[10] In line with these changes, the fertility rate in Iran has also decreased. The results of censuses and statistics in Iran show that the total fertility rate has declined from 7.7 children per woman in 1967 to 1.6 in 2011. These figures indicate that our country stands in the transition period.^[11,12] Schoolgirls are a target group whose intentions have a significant effect on demographic changes.^[15] According to demographic statements, every country should collect specific data about factors that may affect the intentions of adolescent girls.

Desires form fertility intentions that have a direct effect on parturition. Lavender *et al.* have noted that knowledge on both amplifiers and attenuators of childbearing motives is necessary for health care providers and policy makers.^[16] It seems that there is little consistency between data reported in this field, and thus, determination of factors that affect childbearing intention in this age group is the first basic requirement. The main goal of this study was to determine and categorize factors that affect the childbearing intentions of adolescents.

Materials and Methods

This article is a narrative review. The protocol of this study was not published in any journal. Google Scholar, PubMed, Scopus, Web of Science, and Iranian databases, such as SID, Medlib, Magiran, and Irandoc were searched for articles published from 2000 to February 2018. First, the titles and abstracts of the articles were assessed. Then, the key journals were found using the reference list of articles. Moreover, gray literature, such as conference abstracts, theses, and the result of technical reports were also used. Finally, the reference lists of the included studies and relevant systematic reviews were searched. Medical Subject Headings (MeSH) terms, such as childbearing, reproductive health, reproductive behavior, attitude, motivation, adolescents, teens, teenagers, and youth were used [Figure 1].

The search strategy used in PubMed is as follows. The search syntaxes used were shaped based on the selected MeSH terms and their synonyms. The synonyms were placed in a parenthesis and they were joined using “OR,” and the

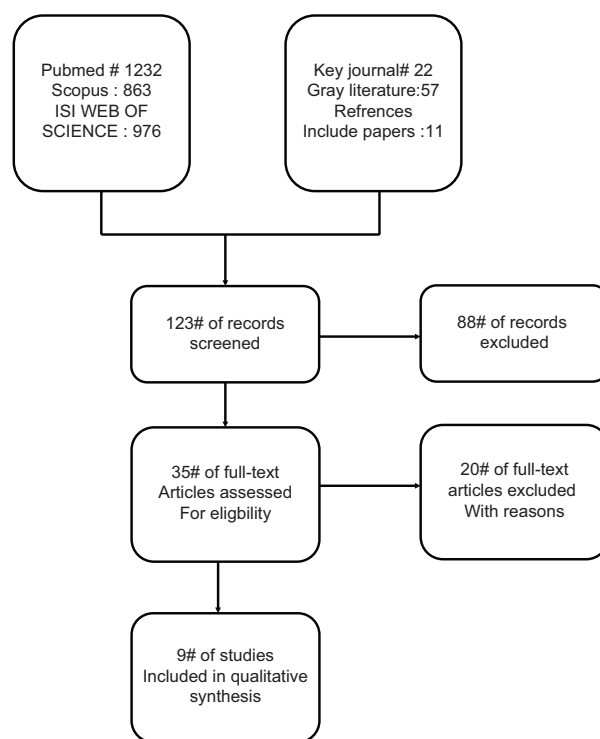


Figure 1: The process of inclusion and exclusion of studies

MeSH terms were joined using “and”. In the other websites, such as Web of Science and Scopus, we tried to follow the same strategy to the extent possible. The abstracts of the articles were read; those that were relevant were placed in the inclusion folder, and those that were not relevant were placed in exclusion folder. In the next step, the folders were evaluated by two reviewers (Oshrieh and Ebrahimi). An electronic checklist (based on the review manager tools) was used for evaluation, and the score of each item was entered into the checklist.

Both qualitative and quantitative studies, including cohort, case control, and cross-sectional studies, and clinical trials, were entered into this review. Moreover, no limitations were considered for including systematic reviews and meta-analysis studies if their primary article met our inclusion criteria. All of the above-mentioned studies were included if they assessed childbearing motives in single female adolescents within the age range of 15-18 years (based on PICO: adolescent girls, any intervention or evaluation about adolescents’ childbearing intentions, any comparison with the same or different age groups, childbearing intention, or intervention). Studies that investigated married couples or male adolescents were excluded from the study.

Two reviewers independently checked the included studies and appraised them by an author-made tool that was created based on the criteria in Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist, Jadad scale, and The National Collaborating Centre for Methods and Tools (NCCMT). The characteristics of the included studies are provided in Table 1.

Ethical consideration

This thesis was approved by the ethical committee of Shahrood University of Medical Sciences (IR. SHMU. REC.1395.96). In this review study, the collected data were only used for scientific purposes, and intellectual property was respected in the reporting and publication of the results.

Results

Overall, 123 studies were included and reviewed by two reviewers. A detailed review was conducted on 35 studies, and finally, 15 studies were included in this systematic review [Figure 1]. The findings of this study showed that childbearing intention is affected by several factors

[Table 1]. Based on the statements of the articles, these factors include cultural issues (parents' opinions about childbearing, intergenerational effects, early childhood training about childbearing), financial issues (parental job and economic status, e.g., employment and housing), and social indicators (social norms, emotional maturity, the experience of an effective life, sense of responsibility, initial formation of the decision-making process, parental educational status, positive motivation of the individual, gaining of knowledge on reproductive health during adolescence, economical and organizational constraints, and political factors). In this way, cross-sectional, randomized clinical trial, and review studies on the following topics were mentioned:

Table 1: Included studies characteristics

Author, year, place	The study title	Study method	Study sample	Results
Evens <i>et al.</i> , 2014, South Africa and Malawi ^[15]	Identifying factors that influence pregnancy intentions: evidence from, South Africa and Malawi	Qualitative	13 in focus group discussions and 86 in semi-structured interview (15-18-year-old females)	Women's decision-making power and financial issues
Berrington and Pattaro, 2014, Britain ^[17]	Educational differences in fertility desires, intentions and behavior: A life course perspective	Cohort	17000 adolescent girls followed for 5 years (13-18 years)	The cultural and economic status of parents The parents opinions about childbearing Intergenerational effects The initial formation of the decision-making process Social norms Parental job Parental educational status
Buhr and Huinink J, 2014, Germany ^[18]	Fertility analysis from a life course perspective	Review	12 primary studies (adolescents of 15-18 years of age)	Early childhood training about childbearing Social and political factors regional and cultural factors
Miller <i>et al.</i> , 2010, America ^[19]	Fertility Motivations of Youth Predict Later Fertility Outcomes: A prospective analysis of national longitudinal survey of youth data	Cohort	6111 (girls of 15-18 years of age)	Reproductive motivation during adolescence is relevant to fertility outcomes in the future. Eventually, education during this period could lead to the stabilization of positive beliefs regarding childbearing.
Nagaoka, 2014, Britain ^[20]	Effects of an educational program to foster fertility awareness in teenage girls: A pilot study	Narrative review	23 Primary articles (girls of 13-18 years of age)	Incentive policies for childbearing at the workplace Reproductive health education in schools
Ndahindwa <i>et al.</i> , 2014, Rwanda ^[21]	Determinants of fertility in Rwanda in the context of a fertility transition: a secondary analysis of the 2010 Demographic and Health Survey	Cross-sectional	13671	Providing more opportunities for gaining knowledge about childbearing Access to financial facilities
Williamson <i>et al.</i> , 2014, Canada ^[22]	Informed Reproductive Decision-Making: The Impact of Providing Fertility Information on Fertility Knowledge and Intentions to Delay Childbearing	RCT	69 (girls of 13-18 years of age)	Providing information increases knowledge and positive motivations for childbearing
Yukiko, 2000, Japan ^[23]	Effects of an educational program to foster fertility awareness in teenage girls: A pilot study	RCT	36 (girls of 13-18 years of age)	Implementing health education on fertility and infertility can inform teenage girls about their fertility and promote health management. In addition, it may prevent future infertility.

Early childhood training about childbearing, social and political factors, the regional and cultural factors, reproductive health education during adolescence, incentive policies on childbearing at the work place, provision of more opportunities for childbearing in educated people, and more access to reproductive health education as the most important factors that can determine the childbearing intentions of adolescents.

Due to the nature of intention, which is a deep and long process, qualitative researches can explain it better than other studies. The study by Miller, as a high-quality study in this area, showed that, in developing countries such as Malawi and South Africa, partner and societal factors affect a woman's fertility intentions and decision-making power.^[14] This is very important because it showed that in women decision making is affected by some social norms, and in order to change unhealthy behaviors we must work on social norms. Although in the second qualitative study,^[14] the authors did not find this theme (women's decision-making power and financial issues), they directly mentioned the social factors as a main concept and highlighted some social concepts, such as employment, housing, and emotional maturity as a subgroup.

Discussion

Fertility intention was the most important factor that affects fertility behavior.^[3] Adolescence is the stage of transition from childhood to adulthood in which many patterns of life are learned and established.^[2] This review article included 15 articles and aimed to investigate the factors that may affect adolescents' motives of childbearing.

In almost all primary articles, it was stated that cultural factors (such as parents' opinions about childbearing, intergenerational effects, early childhood training about childbearing, etc.) have crucial effects on the formation of childbearing intention and reproductive health behavior among adolescents. However, one of the most difficult methods to motivate positive parenting in societies with negative population growth is the designing of interventions that can increase positive intention among children. In this regard, Among Dutch adolescents, interventions were conducted on both adolescents and parents to change their negative intentions. This finding was valuable as it exhibited the important role of parental training in the success of youth-friendly programs.^[17] So, many researchers believed that changing reproductive behavior is not easy, and may require culturalization.^[17-19,24-28] Berrington and Pattaro believed that under some circumstances, we have to pay a heavy cost for individual interventions to cause the desired changes in childbearing intention.^[17] Hence, we found that change does not occur simply. Therefore, some studies suggested that information on fertility and childbearing knowledge should be provided at the beginning of adolescence for both adolescents and their families.^[17,24,28]

In addition to the complexities existing between the social factors and childbearing motives, there are serious overlaps between cultural and economic factors. For example, financial conditions may affect the opinion of parents about childbearing as a cultural factor. Therefore, the analysis of the degree of pure impact of each of these factors is very difficult.

Financial factors were reported as a casual factor by a number of the studies.^[15,17,25,26,28,29] In the survey conducted on adults' intention for childbearing, this factor was noted as a main core.^[8] Articles that have analyzed the fertility status in the context of economic sanctions have unanimously agreed that the trend is moving toward a descending trend.^[29,30] According to a study conducted in Europe, the further worsening of economic conditions of European, make the young people to have an additional delay in their life course path.^[29] There are some evidences that countries most affected by the last great recession have experienced a decrease in fertility especially among their youth.^[30,31] Moreover, employment instability, one of the most serious consequences of economic crisis, has been proved to have a negative impact on definite child numbers of both couples.^[29] However, there are some conflicting data in this regard; some studies have argued that this does not mean that individuals with a low socioeconomic status generally do not have a specific childbearing plan.^[24,27]

Regarding social factors, Brzowska and Mynarska noted that social norms created in the context of each society could deteriorate or ameliorate the intention of having one or more child.^[28] Although educational interventions had a positive effect on increasing positive intention, some items such as emotional maturity and the sense of responsibility in this group can alter this linear relation. According to the reports of Buhr and Huinink, political factors act as a control knob, which determines the borders of couple's decision making about family size in each country.^[18]

Previous studies explained that the predictive event of individual fertility in a community is the existence of a specific motivation sequence. Miller argued that fertility motivation follows a particular motivational sequence that has its origins in childhood and adolescence.^[14] In this regard, Iacovou *et al.* suggested that fertility expectations of individuals could be classified in to the three categories of unchanged, increased, and reduced fertility expectations.^[27] Furthermore, according to all of the above studies, it is right to say that fertility expectations are affected by several factors, and are compatible with a variety of biological conditions, but the basis of this setting is adolescence and sexual orientation, and is then regulated in a gradual process. The present review study can play an effective role in representing factors influencing childbearing intention, critical age; a domain with low information, which is very important to researchers and policymakers. However, the effect of investigator's or initial studies error on the reported results is one of the limitations of the present study.

Conclusion

Fertility expectations are affected by several factors and are compatible with a variety of conditions. Moreover, access to precise information on the effects of each factor (positive or negative) is necessary and useful for demographers, policymakers, and other planners in any community.

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Conflicts of interest

Nothing to declare.

References

- Asadi-Aliabadi M, Fakori M, Siamian H, Dehghani L, Rostami F. Socio-cultural and economic factors influencing fertility behavior in staffs working in health centers in Juybar, Iran: A cross-sectional study. *Iran J Health Sci* 2017;5:62-8.
- Farrokh-Eslamlou H, Vahabzadeh Z, Moeini R, Moghaddam Tabrizi F. Pre-marriage couples' fertility attitude following recent childbearing persuasive policies in Iran. *J Urmia Nurs Midwifery Fac* 2014;11:9.
- Qazi YS. Adolescent Reproductive Health in Pakistan. Towards adulthood: Exploring the Sexual and Reproductive Health of Adolescents in South Asia. Geneva: World Health Organization; 2003. p. 78-80.
- Dash L. *When Children Want Children*. New York: William Morrow and Co; 1989.
- Furstenberg FF. *Unplanned Parenthood*. New York: Free Press; 1976.
- Zabin LS, Astone NM, Emerson MRJ. Do adolescents want babies? The relationship between attitudes and behavior. 1993;3:67-86.
- Kost K, Landry DJ, Darroch JE. Predicting maternal behaviors during pregnancy: Does intention status matter? *Fam Plann Perspect* 1998;30:79-88.
- Hellerstedt WL, Pirie PL, Lando HA, Curry SJ, McBride CM, Grothaus LC, *et al.* Differences in preconceptional and prenatal behaviors in women with intended and unintended pregnancies. *Am J Pub Health* 1998;88:663-6.
- Elder Gh. Age differentiation and the life course. *Annu Rev Sociol* 1975;1:165-90.
- Marini MM. Age and sequencing norms in the transition to adulthood. *Soc Forces* 1984;63:229-43.
- Dryfoos JG. A new strategy for preventing unintended childbearing. *Fam Plann Perspect* 1984;16:193-5.
- Musick JS. *Young, Poor, and Pregnant*. New Haven: Yale University Press; 1993.
- Ajzen I. *Constructing a Theory of Planned Behavior Questionnaire*. Amherst, MA, USA: University of Massachusetts. Available from: <http://people.umass.edu/ajzen/tpb.html>. [Last retrieved on 2013 May 14].
- Miller WB. Childbearing motivations, desires, and intentions: A theoretical framework. *Genet Soc Gen Psychol Monogr* 1994;120:223-58.
- Evens E, Tolley E, Headley J, McCarraher DR, Hartmann M, Mtimkulu VT, *et al.* Identifying factors that influence pregnancy intentions: Evidence from South Africa and Malawi. *Cult Health Sex* 2015;17:374-89.
- Lavender T, Logan J, Cooke A, Lavender R, Mills TA. Nature makes you blind to the risks: An exploration of women's views surrounding decisions on the timing of childbearing in contemporary society. *Sex Reprod Health* 2015;6:157-63.
- Berrington A, Pattaro S. Educational differences in fertility desires, intentions and behavior: A life course perspective. *Adv Life Course Res* 2014;21:10-27.
- Buhr P, Huinink J. Fertility analysis from a life course perspective. *Adv Life Course Res* 2014;21:1-9.
- Miller WB, Rodgers JL, Pasta DJ. Fertility motivations of youth predict later fertility outcomes: A prospective analysis of national longitudinal survey of youth data. *Biodemography Soc Biol* 2010;56:1-23.
- Nagaoka Y. Effects of an educational program to foster fertility awareness in teenage girls: A pilot study. *Age* 2014;18:51-3.
- Ndahindwa V, Kamanzi C, Semakula M, Abalikumwe F, Hedt-Gauthier B, Thomson D. Determinants of fertility in Rwanda in the context of a fertility transition: A secondary analysis of the 2010 Demographic and Health Survey. *Reprod Health* 2014;11:87. Available from: <http://www.reproductive-health-journal.com/content/11/1/87>. doi: 10.1186/1742-4755-11-87.
- Williamson Le, Lawson KL, Downe PJ, Pierson RA. Informed reproductive decision-making: The impact of providing fertility information on fertility knowledge and intentions to delay childbearing. *J Obstet Gynaecol Can* 2014;36:400-5.
- Yukiko N. Aspects of suffering and the coping mechanisms used by women undergoing infertility treatment. *J Jpn Acad Midwifery* 2000;14:18-27.
- Dommermuth L, Klobas J, Lappégard T. Realization of fertility intentions by different time frames. *Adv Life Course Res* 2015;24:34-46.
- Gray E, Evans A, Reimondos A. Childbearing desires of childless men and women: When are goals adjusted? *Adv Life Course Res* 2013;18:141-9.
- Heywood W, Pitts MK, Patrick K, Mitchell A. Fertility knowledge and intentions to have children in a national study of Australian secondary school students. *Aust N Z J Public Health* 2016;40:462-7.
- Iacovou M, Tavares LP. Yearning, Learning and Conceding: (Some of) the Reasons People Change Their Childbearing Intentions. *Population and Development Review* 2011;37:89-123. ISER Institute for Social and Economic Research Working Paper No. 2010-22.
- Brzozowska Z, Mynarska M. Fertility intentions and their realization: Insight from the polish generations and gender survey. Working papers. 2017. Available from: WWW.OEAW.AC.AT.
- Goldstein B, Joshua R. Fertility reactions to the "Great Recession" in Europe: Recent evidence from order-specific data. *Demogr Res* 2013;29:85-104.
- Ciganda D. Unstable work histories and fertility in France: An adaptation of sequence complexity measures to employment trajectories. *Demogr Res* 2015;32:843-76.
- Almeida-Santos T, Melo C, Macedo A, Moura-Ramos M. Are women and men well informed about fertility? Childbearing intentions, fertility knowledge and information-gathering sources in Portugal. *Reprod Health* 2017;14:91. doi: 10.1186/s12978-017-0352-