Original Article

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_175_18

The relationship between childbearing motivations with fertility preferences and actual child number in reproductive-age women in Mashhad, Iran

Morvarid Irani, Talat Khadivzadeh[1]

Abstract:

INTRODUCTION: Motivation is directly involved in women's childbearing decision. Considering the lack of information about reproductive-age women's childbearing motivations with preferences and actual child number in Iran, this study was conducted to determine the relationship between childbearing motivations with the fertility preferences and actual child number of reproductive-age women.

MATERIALS AND METHODS: The participants in this descriptive–correlational study were 844 reproductive-age women (aged 15–49 years) who were married for the first time and came from a wide range of areas in Mashhad. Multistage and convenience samplings were applied and the data were collected using Miller's childbearing motivation and fertility preferences and actual child number questionnaire.

RESULTS: The results of the study reveal that positive- and negative-childbearing motivation were correlated with preferences ($P < 0.001$) but were not correlated with actual child number. Furthermore, the interactional variable derived by a combination of positive and negative motivations showed a significant relationship with the ideal and actual child number ($P < 0.05$).

CONCLUSIONS: Childbearing motivations affect the fertility preferences in reproductive-age women but do not appear to have any influence on the actual child number. Furthermore, the interactional variables affect the ideal and actual child number.

Keywords:

Fertility preferences, reproductive behavior, reproductive periods, women

Department of Midwifery, School of Nursing and Midwifery, Mashhad University of Medical Sciences, [1]Department of Midwifery, Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran

Address for correspondence:
Dr. Talat Khadivzadeh, Department of Midwifery, Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad, Iran.
E-mail: khadivzadeht@mums.ac.ir

Received: 12-06-2018
Accepted: 01-09-2018

Introduction

Fertility behavior and actual child number are two complex issues with deep cultural, behavioral, and ideological roots that gradually change with a demographic transition, as well as economic and social development.[1] In recent years, the fertility behavior in Iran has changed, as many Iranian families currently choose to have fewer children than did their parents. In 24 out of 31 Iranian provinces, the fertility rate is below the replacement level that is 2.1 childbirths per woman.[2] It is noticeable that Iran has currently the lowest fertility rate in the Middle East.[3]

The previous studies have indicated different factors affecting the fertility in Iran. Postponement of marriage and childbearing is one of the main factors driving fertility in Iran below the replacement level.[4-7] Socioeconomic factors such as women's participation in economic issues, increasing

How to cite this article: Irani M, Khadivzadeh T. The relationship between childbearing motivations with fertility preferences and actual child number in reproductive-age women in Mashhad, Iran. J Edu Health Promot 2018;7:175.

education levels, and greater health-care provision from the government have been identified as other factors affecting the fertility.[8-12] Women's empowerment in individual, family, and religious beliefs, as well as contraceptive use and levels of religious beliefs have also been proposed as the main forces affecting the fertility in Iran.[5,6,13]

Several studies suggest that, in many societies, "childbearing behavior" is a function of "fertility preferences."[14-16] These studies highlight the need for further research into couples' fertility preferences. In the traditional Iranian society, giving birth to more male children was of great importance for most families, as a male child was used to signify the higher social status and greater economic power of patriarch and family.[17] A study conducted by Khoshnevis showed that parents' insistence on having specific gender composition of children tends to increase the fertility rate.[18]

The studies carried out by Miller on the American population showed a significant relationship between childbearing motivation and fertility preferences.[19] According to Miller, there are two types of childbearing motivation: positive and negative. The positive childbearing motivations (PCM) cover the reasons for wanting a child, such as joys of pregnancy, birth, and infancy; traditional parenthood; feeling needed and connected; instrumental values of children; and satisfactions of childrearing. The negative childbearing motivations (NCM) cover the reasons for not wanting a child such as parental stress, fear and worries of parenthood, as well as challenges of childcare and discomforts of pregnancy and childbirth.[19,20] Miller's study (1995) in the United States showed that the PCMis associated with more childbearing desire, higher ideal number of children, and shorter intervals between births. In this study, the NCM was found to be inversely correlated with childbearing desire and the ideal number of children.[19]

Given Iran's declining fertility rate and its economic, social, cultural, and maternal-child health changes in the past decade, further research into the role of childbearing motivations in women's fertility preferences and actual number of children of reproductive-age Iranian women as determinants of the country's future fertility and maternal–child health is of essential importance. To contribute to this objective, this study investigated the childbearing motivations and its relationship with fertility preferences and actual number of children in women of reproductive age in Mashhad, Iran, in 2016.

Materials and Methods

This is a descriptive–correlational study to determine the relationship between childbearing motivations with fertility preferences and actual child number. The data were collected from 844 women of reproductive age during the May until November 2016. All of these women were living in Mashhad city, Razavi Khorasan Province, in the Northeastern of Iran. In general, acknowledged as one of the main centers of Iranian civilization, Razavi Khorasan Province has considered the main holy city for Shiites throughout the long history of Iran.[21]

Multistage and convenient sampling techniques were used for gathering data. The research context included a wide range of places, including health-care centers, educational centers, and offices as well as nongovernmental centers in Mashhad city. Eligible women were those who were getting married for the first time. All of the women agreed to participate in the study. Incomplete answers to questionnaires led to withdrawal from the study.

A researcher collected the data from a wide range place of Mashhad city. The researcher distributed the questionnaires among the women in attendance, separately and privately, and instructed each respondent on how to answer the questions. For those respondents with a low educational level, the researcher explained each item that might not be understood. Data collection lasted for 6 months. Women cooperation was good.

The sample size was obtained using the criterion recommended in the religious orientation and desired fertility measurement document by Saei Gharenaz *et al*.[22] The sample size was estimated using the formula $N = S^2 Z^2 / d^2$. In this study, the sample size was determined to achieve the objectives of the study and the highest sample size of 844 was considered.

Data collection tools included a demographic questionnaire (including age, spouse's age, women's education, and spouse's education), the fertility preferences questionnaire, and the Miller's Childbearing-motivation Questionnaire.

Childbearing Motivation Questionnaire contains two dimensions; PCM with 28 items including joy of pregnancy, birth, and infancy (6 items); traditional parenthood (6 items); childrearing satisfactions (6 items); feeling needed and connected (5 items); as well as instrumental values of children (4 items) and NCM with 21 items including discomfort of pregnancy and childbearing (2 items), fear of parenthood (6 items), parental stress (4 items), and childcare challenges (9 items) which included 21 items. To score the Childbearing Motivation Questionnaire, a 4-point rating scale ranging from totally disagree (score 1) to totally agree (score 4) was used.

Fertility preferences and behavior were measured by a questionnaire consisting of seven items. This questionnaire represents ideal child number at the time of marriage, at present and in an ideal condition, actual child number, difference between actual and ideal child number (unmet childbearing desire), mother's age in the first child delivery, and ideal and actual interval (years) between the marriage and the first child delivery. Open questions related to the ideal and actual number of children were also asked from the participants. The variable of unmet childbearing desire was obtained from the difference between the ideal and actual number of children.

In a recent study, based on positive and negative motivations, four interaction variables were defined by Miller *et al.* (2014) as antinatal, pronatal, ambivalent, and indifferent desire.[23] In this study, both the positive- and negative-motivation scores, based on the median, are divided into two parts of "up" and "down" meaning that the positive- or negative-motivation score is higher and lower than the median, antinatal group (disagree with fertility) refers to a group of people that has a low-positive desire and a high-negative desire; pronatal group (agree with fertility) refers to a group of people with a high-positive desire and a low-negative desire; ambivalent group was one with high positive and negative desire; and undifferent group was one with low positive and negative desire. They found that these four variables were more successful in predicting the future pregnancies than were either positive or negative desire alone. The content validity of the questionnaires was approved by ten subject matter experts and professors from the reproductive health, nursing, and midwifery disciplines at Mashhad University of Medical Sciences. In the first step, the structured questionnaires were developed based on the most recent update references and frequent experiences of the authors. The content validity of the questionnaires was assessed by the content validity ratio (CVR) and content validity index (CVI). According to the ideas inquired from the foresaid ten experts and based on Lawshe table, CVR value above 0.62 was considered acceptable, above 0.7 modified, and above 0.8 appropriate. To confirm the reliability of the Childbearing Motivation Questionnaire and Fertility preferences and behavior questionnaire, the test–retest method was applied. Thus, the questionnaires were initially rated by 40 individuals and then by the same respondents; the test–retest method revealed a satisfactory reliability of 0.85–0.91. The reliability of the subscales of CBQ in other researches in Iran was obtained between 0.75 and 0.87.[24]

To examine the quantitative data in terms of normal distribution, the Kolmogorov–Smirnov test was used and to describe the demographic and individual characteristics mean, standard deviation, and frequency were used. It should be noted that the parametric or nonparametric statistical methods can be employed if there is a normal distribution or lack of normal distribution, respectively. Pearson correlation coefficient was used to determine the correlation between the childbearing motivations and the fertility preferences, and the behavior in case of normal distribution and Spearman's correlation coefficient was employed otherwise. The data analysis was performed using the SPSS version 16 software and $P < 0.05$ was considered statistically significant. The ethical considerations were also included in this study, all the data remained confidential, and only the women with informed consent participated.

Results

The mean standard deviation (SD) age of women was 31.5 (7.5) years. One-hundred and ninety-three women (22.9%) were under 25, 418 women (49.5%) aged between 25 and 35, 227 women (26.9%) were over 35, and 6 women (0.7%) did not report their age. The mean age of marriage for women was 20.1 (4.2) and the mean age of women at the birth of their first child was 22.5 ± 4.0. 60.6% of the participants were homemakers.

Table 1 shows the mean and standard deviation for fertility preferences, fertility behavior, and all the subscales of positive- and negative-childbearing motivations in women.

As shown in Table 2, Pearson correlation test shows that PCM are positively correlated with several factors such as, ideal child number at the onset of marriage, ideal child number at present, ideal child number in the ideal condition, and unmet childbearing desire ($P < 0.001$), but not with the actual child number and mother's age at the first birth ($P > 0.05$).

Moreover, NCMs are found to be inversely correlated with different factors including ideal child number at the start of marriage, at the present time, and in the ideal condition and unmet childbearing desire and positively correlated with the ideal interval between marriage and the first birth and mother's age at the first birth; but not with the actual child number ($P = 0.4$) [Table 2].

The correlation between the scores of childbearing motivation subscales and the ideal and actual numbers of children is demonstrated in Table 3. All subscales of PCM, with the exception of "instrumental values of children," have a significant positive correlation with the ideal number of children. The subscale "traditional parenthood" is positively correlated with the actual number of children.

Table 1: Mean and standard deviation of fertility preferences, fertility behavior and all subscales of childbearing motivations in reproductive-age women

	Fertility and childbearing motivations	Mean±SD
Fertility preferences	Ideal Child-number at the onset of marriage	2.40±1.17
	Ideal Child-number at present	2.41±1.15
	Ideal Child-number in the ideal condition	3.0±1.31
	Difference between Lived child and Ideal Child (unmet childbearing desire)	0.91±1.28
Fertility behaviors	actual Child-number	1.51±1.01
	Actual interval between marriage and first child delivery (years)	2.59±1.87
	Mother's age at first birth	22.55±4.01
Positive Childbearing Motivation (PCM)	Joys of pregnancy, birth and infancy	21.55±3.31
	Traditional parenthood	19.22±3.83
	Satisfactions of childrearing	21.75±3.05
	Feeling needed and connected	17.30±3.05
	Instrumental values of children	12.43±2.57
	PCM	95.57±12.94
Negative Childbearing Motivation (NCM)	Fears and worries of parenthood	17.36±2.57
	Parental stress	8.01±2.37
	Negatives of childcare	22.72±4.48
	Discomforts of pregnancy and childbirth	5.31±1.52

Table 2: Correlation between childbearing motivations and fertility preferences and fertility behavior

	Fertility	Positive Childbearing Motivation (PCM)	Negative Childbearing Motivation (NCM)
Fertility Preferences	Ideal Child-number at the onset of marriage	r=0.151, P=0.000	r=-0.114 , P=0.003
	Ideal Child-number at present	r=0.171 , P=0.000	r= -0.191 , P=0.000
	Ideal Child-number in the ideal condition	r=0.150, P=0.000	r= -0.141 , P=0.000
	Ideal interval between marriage and first child delivery (years)	r=-0.105, P=0.020	r=0.119 , P=0.000
	Difference between Lived child and Ideal Child (unmet childbearing desire)	r=0.161, P=0.000	r= -0.149, P=0.000
Fertility Behavior	Mother's age at first birth	r= -0.035, P=0.786	r=0.164, P=0.000
	actual Child-number	r=0.011, P=0.786	r=-0.027, P=0.478

Table 3: Correlation between subscales of childbearing motivations and ideal, actual Child-number and unmet childbearing desire

	Ideal Child-number at the onset of marriage	Ideal Child-number at present	Actual Child-number	Unmet childbearing desire
Joys of pregnancy, birth and infancy	*r=0.138	*r=0.120	r =. 018, P=0.621	*r=0.119
Traditional parenthood	*r=0.157	*r=0.214	** r=0.096	*r=0.147
Satisfactions of childrearing	*r=0.130	** r=0.088	r=0.005,.886	**r. 094
Feeling needed and connected	*r=0.129	*r=0.152	r=0.042, P=0.245	*r=0.104
Instrumental values of children	r=0.028 , P=0.436	r=0.049, P=0.177	r =-0.009, P=0.086	**r=0.090
Fears and worries of parenthood	r =-0.058, P=0.109	** r = -0.092	r =-0.002, P=0.965	**r=-0.076
Parental stress	** r =-0.094	*r =-0.131	r =-0.040 , P=0.268	**r=-0.105
Negatives of childcare	** r =-0.107	*r =-0.145	r=0.003, P=0.943	**r=-0.082
Discomforts of pregnancy and childbirth	*r =-0.137	*r =-0.174	** r =-0.107	**r=-0.100

*$P \leq$ 0/001, **P<0/01

All subscales of NCM have a significant inverse correlation with the ideal number of children. The subscale "discomforts of pregnancy and childbirth" is inversely correlated with the actual number of children.

All subscales of PCM are positively correlated with unmet childbearing desire and all subscales of NCM are negatively correlated with unmet childbearing desire. In other words, the higher is the PCM score, and the lower is the NCM score of the respondents, the lower is the difference between their ideal and actual number of children.

Table 4 compares the ideal and actual child number and unmet childbearing desire in the four groups formed on the basis of a quadripartite interactional variable considering participants' scores on the positive- and negative-childbearing motivation scales. The results of the ANOVA test show a statistically significant difference among these four groups in terms of ideal

and actual child number and unmet childbearing desire ($P < 0.01$).

In Table 5, the four groups are compared using the least significance difference test **(**LSD-test). As shown in this table, the actual child number in the undifferent group (participants who scored low in both positive and negative motivation) is significantly different from actual child number in the antinatalist group (participants who scored high-positive and low-negative motivation) ($P = 0.007$).

In terms of the ideal number of children, significant differences are found between the indifferent participants and the antinatalists and the pronatalists (participants who scored low-positive and high-negative motivation) ($P = 0.005$ and $P = 0.023$), between the antinatalists and the pronatalists and the ambivalent participants (participants who scored high in both positive and negative motivations) ($P = 0.005$ and $P = 0.000$), between the pronatalists and all the other groups ($P = 0.000$), and between the ambivalent participants and pronatalists ($P = 0.000$). In terms of unmet childbearing desire (the difference between the actual and ideal number of children), significant differences are found between the indifferent participants and the pronatalists ($P = 0.005$), between the antinatalists and the pronatalists ($P = 0.015$), between the pronatalists and all the other groups ($P < 0.05$), and between the ambivalent participantsand the pronatalists ($P = 0.035$).

Regression analysis was used to control for the confounding factors [Table 6]. A multiple linear regression analysis was conducted to determine the relationship between childbearing motivations as the independent variable and ideal child number as the dependent variables. The factors that constituted the independent variable included: education levels, age, and age at marriage. The correlation between childbearing motivations and ideal child number remain significant with multivariate regression models as well as controls for the confounding factors.

Table 4: Means (SD) of the ideal and actual child-number and unmet childbearing desire in the four groups of childbearing motivation

	Mean ± SD		
	Actual Child-number	Ideal Child-number	Unmet childbearing desire
Undifferent	1.5±0.97	2.36±0.920	0.70±0.94
Antinatalist	1.2±0.81	2.02±1.079	0.76±1.27
Pronatalist	1.6±1.05	2.72±1.417	1.11±1.38
Ambivalent	1.4±1.05	2.36±0.998	0.89±1.28
Total	1.5±1.01	2.41±0.998	0.91±1.27
ANOVA	P=0.000	P=0.014	P=0.014

Discussion

This study investigated the relationship between childbearing motivation of reproductive-age Iranian women (in Mashhad) and their fertility preferences and fertility behavior. Our findings show a significant relationship between positive and negative motivations and fertility preferences, that is, women with higher-positive motivation and lower-negative motivation scores have a higher ideal number of children, prefer a shorter interval between marriage and the first birth, and have a lower unmet-childbearing desire. However, the results show no significant correlation between positive and negative motivations and the actual number of children.

The results of the present study confirm the results of Miller's study (1995) on the relationship between positive and negative motivation and the childbearing desire and the ideal number of children in American couples. However, in his study, Miller found no correlation between positive motivation and the preferred interval between marriage and the first birth, which is inconsistent with the findings of this study. This inconsistency may

Table 5: Comparison of ideal and actual child-number and unmet childbearing desire in four groups of childbearing motivation using the LSD test

		Undiffrentiate	Antinatalist	Pronatalist	Ambivalent
Actual Child-number	Undifferent	-	0.007	. 820	0.126
	Antinatalist	0.007*	-	0.004	0.077
	Pronatalist	0.820	0.004	-	0.104
	Ambivalent	0.126	0.077	0.104	-
Ideal Child-number	Undifferent	-	0.023	0.005	0.979
	Antinatalist	0.023	-	0.000	0.005
	Pronatalist	0.005	0.000	-	0.000
	Ambivalent	0.979	0.005	0.000	-
Unmet childbearing desire	Undifferent	-	0.729	0.005	0.182
	Antinatalist	0.729	-	0.015	0.357
	Pronatalist	0.005	0.015	-	0.035
	Ambivalent	0.182	0.357	0.035	-

*P=0.007

Table 6: Multivariate regression models for controlling the confounding factors

	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig
	B	Std. Error	Beta		
(Constant)	2.683	0.614		4.367	0.000
Age	0.026	0.007	0.185	3.702	0.000
Age at marriage	-0.049	0.015	-0.169	-3.223	0.001
Education Levels	-0.096	0.047	-0.102	-2.033	0.043
PCM	0.015	0.004	0.170	3.563	0.000
NCM	-0.19	0.006	-0.145	-3.023	0.003

be caused by the cultural and environmental difference between the populations.[19] In Iran, the marriage is still closely related to the notion of fertility, and childbearing is often one of the main motivations for marriage. In some Iranian communities, the married women are expected to give birth to their first child shortly after marriage.[25] In the study conducted by Pezeshki *et al*. on marriageable couples, an increase in PCM was found to be correlated with an increase in childbearing desire and the ideal number of children and a decrease in the preferred interval between marriage and the first birth. They also found the NCM to be inversely correlated with the childbearing desire; in other words, as negative motivation increased the couples' desire to have a child decreased. These reports confirm the findings of the present study.[20]

Furthermore, consistent with the results of the present study is the correlation reported by Khadivzadeh and Arghavani between PCM and childbearing desire and the ideal number of children.[26] Inconsistent with our findings, however, is the absence of any significant relationship between negative motivation and couples' fertility preferences. This is perhaps because of the difference between the populations of the two studies; Khadivzadeh and Arghavani conducted their study on the marriageable couples and had no actual experience regarding the issues such as child-care challenges, pregnancy, and childbirth discomfort, while the present study was conducted on the married women who already had the child and childbearing experience. In the present study, the couples who received a higher score in the "traditional parenthood" subscale had a higher ideal and actual number of children and shorter ideal birth interval. Conventionally, in Iran, childbearing was considered a virtue and infertility was a cause of divorce.[27] This may explain the relationship between traditional parenthood beliefs and fertility preferences. In this study, couples who scored higher in "joys of pregnancy, birth, and infancy," "satisfaction of child rearing," and "feeling needed and connected" subscales (from the category of PCM) had a higher ideal child number; this confirms the results reported by Pezeshki *et al*. and Khadivzadeh and Arghavani.[20,26]

According to the findings of the study, despite the relationship between the positive- and negative-childbearing motivations and fertility preferences, none had a correlation with the actual number of children. This implies the crucial impact of other factors such as social interactions and economic challenges on the actual number of children to whom the Iranian women give birth.

The findings of the present study further show that the interactional quadripartite variable derived by a combination of positive and negative motivations has a significant relationship with the actual number of children and could be a better predictor of the actual number of children than do the positive- and negative-motivations scores alone.

Women who scored higher in positive motivation and scored lower in negative motivation (the pronatalists) had the highest ideal and actual number of children, while the antinatalists had the smallest ideal and actual number of children.

This, the first study, is report of its own kind on the combined and interactional role of childbearing motivation in the ideal and actual fertility and the deviation of the present fertility from the desired fertility (unmet childbearing desire) in the Iranian married women of a reproductive age. Identification of childbearing motivations may contribute to the development of an intervention program for the purposeful promotion of fertility in specific target groups. One limitation of this study was the failure or refusal of few participants to rate some of the items of the questionnaires, which was controlled by removing the participants from the analyses.

Conclusions

Positive and NCM showed a significant relationship with fertility preferences, but not with the actual number of children. The interactional quadripartite variable derived by a combination of positive and negative motivations showed a significant relationship with the actual number of children and can predict the actual number of children and unmet childbearing desire more accurately than do the positive- and negative-motivations scores alone. This variable can be used to predict more accurately the actual number of children and the unmet childbearing desire of the Iranian women in the future.

Acknowledgments

The authors acknowledge the very helpful contributions of the reviewers to the quality of the final manuscript.

Financial support and sponsorship

The project was partially funded by the Research Deputy of the Mashhad University of Medical Sciences.

Conflicts of interest

There are no conflicts of interest.

References

1. Keshavarz H, Bahramian M, Mohajerani AA, Hossein-Pour K. Factors affecting differences in fertility behavior of Resident and migrating tribes of Samirom. Health System Res 2012;8:456-65.
2. Erfani A. The Impact of Family Planning on Women's Educational Advancement in Tehran, Iran. International Center for Research on Women Fertility and Empowerment Working Paper Series. 008-2012-ICRW-FE. 2012: 1-27
3. Moeeni M, Pourreza A, Torabi F, Heydari H, Mahmoudi M. Analysis of economic determinants of fertility in Iran: A multilevel approach. Int J Health Policy Manag 2014;3:135-44.
4. Abbasi Shavazi M, Razeghi Nasrabad H. Patterns and factors affecting between marriage and first birth in Iran. Demogr Soc 2010;5:75-105.
5. Khadivzadeh TE, Arghavani, Shakeri MT. Attitude toward governmental incentives on childbearing and its relationship with fertility preferences in couples attending premarital counseling clinic in health centers in Mashhad. J Mazandaran Univ Med Sci 2015;24:1-13.
6. Khadivzadeh T, Latifnejad Roudsari R, Bahrami M, Taghipour A, Abbasi Shavazi J. Caring for my family integrity: Fertile couples' first childbearing experience in the urban society of Mashhad, Iran. Hum Fertil 2015;18:60-9.
7. Khadivzadeh T, Hadizadeh Talasaz Z, Shakeri MT. Predicting factors affecting the delay in first childbearing among young married women using the Bandura's social learning theory. Hayat. J Sch Nurs Midwifery Tehran Univ Med Sci 2017;23:226-42.
8. Khadivzadeh T, Latifnejad R, Bahrami M. The Influence of Mass Media on Couple s Fertility Intention, a Qualitative Explanatory Approach. National Conference of Women Health; 2014.
9. Rahmati R, Esmaily H, Bahrami HR. Evaluation of the performance of the health care workers in giving consultation about the fertility promotion. J Midwifery Reprod Health 2017;5:911-8.
10. Mahdi Shirzad M. Fertility behaviour of Iranian women: A community-based, cross-sectional study. Arch Iran Med 2015;18:2.
11. Khadivzadeh T, Latifnejad Roudsari R, Bahrami M. The Influence of gender role and women's empowerment on couples' fertility experiences in urban society of Mashhad, Iran. J Midwifery Reprod Health 2014;2:170-9.
12. Keim S, Klärner A, Bernardi L. Qualifying social influence on fertility intentions: composition, structure and meaning of fertility-relevant social networks in Western Germany. Curr Sociol 2009;57:888-907.
13. Behrman JR, Kohler HP, Watkins SC. Social networks and changes in contraceptive use over time: Evidence from a longitudinal study in rural Kenya. Demography 2002;39:713-8.
14. Miller WB, Bard DE, Pasta DJ, Rodgers JL. Biodemographic modeling of the links between fertility motivation and fertility outcomes in the NLSY79. Demography 2010;47:393-414.
15. Miller WB, Millstein SG, Pasta DJ. The measurement of childbearing motivation in couples considering the use of assisted reproductive technology. Biodemography Soc Biol 2008;54:8-32.
16. Miller WB. Differences between fertility desires and intentions: implications for theory, research and policy. Vienna Yearbook of Population Research. 2011; 9: 75-98.
17. Attaei Saeidi H. Evaluation of factors affecting family planning among married biased in Sardasht city. J Popul 2006;47:130-46.
18. Khoshnevis A. Sex preference and Tendency of married women of reproductive behavior. J Soc Sci Hum 2006;47:130-46.
19. Miller WB. Childbearing motivation and its measurement. J Biosoc Sci 1995;27:473-87.
20. Pezeshki MZ, Zeighami B, Miller WB. Measuring the childbearing motivation of couples referred to the shiraz health center for premarital examinations. J Biosoc Sci 2005;37:37-53.
21. Hosseini R, Artinah Z. Islamic Tourism, Pilgrimage Tourism Satisfaction And Hotel Brand Loyalty in Mashhad City, Iran. Kuala Lumpur: International Islamic Tourism Standard Conference; 2012.
22. Gharenaz MS, Ozgoli G, Hajizadeh F, Sheikhan Z, Nasiri M, Jannesari S. The relationship between religious orientation with intention of desired fertility and actual and desirable number of children in working women of Tehran, Iran. Journal of Research on Religion and Health. 2017;3: 90-79.
23. Miller WB, Trent M, Chung SE. Ambivalent childbearing motivations: Predicting condom use by Urban, African-American, female youth. J Pediatr Adolesc Gynecol 2014;27:151-60.
24. Khadivzade T, Arghavani E, Shokrollahi P, Ghazanfarpour M, Kareshki H. Factorial structure of the persian version of childbearing questionnaire in first time engaged couples in Iran. J Obstet Gynaecol 2018;38:470-5.
25. Asgari A, Abbasi Shavazi M, Sadeghi R. Mothers, daughters and Marriage. Strateg Stud Women 2009;11:23-31.
26. Khadivzadeh T, Arghavani E. Religious beliefs and fertility preferences among engaged couples, referring to premarital counseling centers of Mashhad, Iran. J Midwifery Reprod Health 2014;2:238-45.
27. Khadivzadeh T, Rahmanian SA, Esmaily H. Young Women and Men's Attitude towards Childbearing. Journal of Midwifery and Reproductive Health. 2018; 6(3): 1336-1347.